THE CAMBRIDGE
HISTORY OF
MEDIEVAL
PHILOSOPHY

EDITED BY

ROBERT PASNAU

ASSOCIATE EDITOR

CHRISTINA VAN DYKE

THE CAMBRIDGE HISTORY OF MEDIEVAL PHILOSOPHY

The Cambridge History of Medieval Philosophy comprises over fifty specially commissioned essays by experts on the philosophy of this period. Starting in the late eighth century, with the renewal of learning some centuries after the fall of the Roman Empire, a sequence of chapters takes the reader through developments in many and varied fields, including logic and language, natural philosophy, ethics, metaphysics, and theology. Close attention is paid to the context of medieval philosophy, with discussions of the rise of the universities and developments in the cultural and linguistic spheres. A striking feature is the continuous coverage of Islamic, Jewish, and Christian material. There are useful biographies of the philosophers, and a comprehensive bibliography. The volumes illuminate a rich and remarkable period in the history of philosophy and will be the authoritative source on medieval philosophy for the next generation of scholars and students alike.

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The Cambridge History of Medieval Philosophy

Volume I

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PREFACE

The present pair of volumes succeeds, without superseding, *The Cambridge History of Later Medieval Philosophy,* published in 1982 by Norman Kretzmann, Anthony Kenny, Jan Pinborg, and Eleonore Stump. It is a considerable privilege to edit the successor to Kretzmann *et alii*, for that volume distils the work of a brilliant generation of scholars without whom our own scholarly careers would be almost inconceivable. These volumes are entirely new, but we expect their predecessor will remain valuable for many years to come, especially for its detailed treatment of medieval theories of logic and the philosophy of language.

The present volumes differ most notably from their predecessor in three ways: first, their scope extends not just to Christian but also to Islamic and Jewish thought; second, they cover not only the later Middle Ages but also earlier centuries; third, they address in some detail the entire spectrum of medieval thought, including philosophical theology.

Each chapter in these volumes stands on its own, but there are numerous points of contact between chapters, and we have liberally supplied cross-references. One could thus in principle begin reading anywhere and eventually, by following these links, make one's way through the whole. Readers will also want to consult the biographies of medieval authors, in Appendix C, for extensive information on the lives and work of the figures discussed in the chapters.

It would be difficult to exaggerate the challenge posed by editing this disparate material, and we are all too conscious of our limitations in this regard. Our primary debt of gratitude is, of course, to our international team of contributors, who generously set aside their own projects to work on this collaborative venture, submitted their chapters in an unusually timely fashion, and then responded graciously to the complex process of editing. We are also grateful to Hilary Gaskin at Cambridge University Press for her support of this venture. Christina Van Dyke's work on these volumes was underwritten in part by a

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INTRODUCTION

ROBERT PASNAU

Medieval philosophy emerges after the decline of ancient Greece and Rome, when new cultures begin to produce works of philosophy that are at once inspired by that ancient legacy and yet responsive to new cultural and religious circumstances. There is now some consensus on when and where to place the beginnings of medieval philosophy, understood as a project of independent philosophical inquiry: it begins in Baghdad, in the middle of the eighth century, and in France, in the itinerant court of Charlemagne, in the last quarter of the eighth century.[1] It is less easy to say when medieval philosophy ends, because the methods and doctrines that are characteristic of the medieval period endure, and indeed remain dominant, into what is conventionally called the Renaissance. It is not until the seventeenth century, in Europe, that an indisputably new kind of philosophy becomes dominant.

The present volumes give an overview of the people and ideas that shape philosophy through these Middle Ages, from the eighth through the fourteenth century and beyond. One of the most compelling and challenging features of this era is its global reach. Whereas the study of ancient and modern philosophy confines itself mainly to work done within a homogeneous cultural sphere of at most a few hundred miles, the world of medieval philosophy runs from Oxford to Nishapur and from Fez to Prague, through Islamic, Jewish, and Christian thought, and correspondingly through Arabic, Hebrew, Latin, and Greek texts (to mention only the most prominent languages). It is the ambition of these volumes to provide a broad, integrated account of this material.

More than just the modern fancy for multiculturalism impels this holistic treatment of the field. Despite the vast distances and linguistic barriers, the

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[1] For further discussion of the origins of medieval philosophy, see Chapters 1–2. Traditionally, Augustine (354–430) and Boethius (*ca.* 475–526) have been included in the medieval curriculum, but they are manifestly a part of the ancient world. This tradition stems in part from the former tendency of classicists to neglect late antiquity, and in part from the former tendency of medievalists to assimilate medieval philosophy with Christian philosophy. The philosophy of late antiquity is the subject of a forthcoming *Cambridge History*, edited by Lloyd Gerson.

various traditions surveyed in these volumes constitute a continuous and coherent body of thought, such that to study one without the others is liable to distort it.[2] The philosophical foundations of Thomas Aquinas's theology – to take the most prominent example – are inseparable from the thought of Avicenna and Averroes, while his understanding of God is deeply indebted to Moses Maimonides. Maimonides in turn is writing in Arabic, in the midst of the Islamic culture of North Africa, and his ideas are thoroughly grounded in that philosophical tradition. And while Arabic philosophy is foundational for these other traditions, its influence on the others is so pronounced and immediate that it can hardly be understood as a separate movement. Averroes's great commentaries on Aristotle – again to take just the most prominent example – would be translated into Latin and take their place at the core of the university curriculum at Paris and elsewhere within around fifty years of being written in 1180–90. The only justification for treating these traditions separately is that it is in truth desperately difficult for any one scholar to master so much disparate material.

Although written with an eye toward the future, the chapters that follow are necessarily constrained by the boundaries of our present knowledge. These boundaries, it must be said, do not extend very far. Indeed, another of the most compelling and challenging features of the medieval era is our remarkably poor understanding of it. Like soldiers making a stand against an onrushing enemy (to borrow a famous image from Aristotle), medievalists have banded together around a few authors and texts, leaving vast territory practically deserted. An immense amount of work has been done in the quarter century since the last *Cambridge History*. Yet even in these concentrated clusters of research, a great deal remains untouched. Much of the work of Thomas Aquinas – by far the most studied medieval author – still awaits a critical edition, or a translation into English, and sophisticated philosophical work has been done only on certain aspects of his thought. For other authors, even well-known Latin ones, the situation is vastly worse, and in Arabic it is worse still, given the many important texts that remain available only in manuscript. It is, moreover, not even clear that Aquinas deserves his status as the most important figure in the field. Our knowledge of other contenders for that title – such as Avicenna, Maimonides, Peter Abaelard, John Duns Scotus, William of Ockham, and John Buridan – remains too limited to judge the case fairly. With so much exploration still to be done, the medieval era stands as the Wild West of philosophy's history, suited for those who prefer the rugged frontier to a well-cultivated garden.[3]

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[2] On the same principles, the volumes do not extend to contemporaneous but disconnected philosophical traditions such as that on the Indian subcontinent.

[3] A vivid sense of the field's lacunae, as well as its many recent achievements, can be acquired by reading through some of the biographies of medieval authors (Appendix C), with its long lists

In an attempt to conceive more clearly the ways in which medieval scholarship might develop in the twenty-first century, I invited five contributors representing a range of interests and perspectives to join me in composing a list of desiderata for research in the century to come. One immediately obvious feature of the lists is how very different they are. They differ with respect to periods and authors, focusing variously on Latin and Arabic texts, and earlier and later centuries. They also differ widely with respect to topics: some raise questions of metaphysics, others of language or ethics, while still others focus on the boundaries of philosophy's intersection with politics, medicine, and law. A still further difference is between those items focused on philosophical problems, as when Dominik Perler poses the question of why radical skepticism was not a medieval concern, and those focused on historical scholarship, as when Martin Stone presses the need for more critical editions. It should go without saying that these last two kinds of desiderata go hand in hand. The most important development for medieval philosophical scholarship in the last twenty-five years has been the Ockham critical edition, which precipitated much of the most sophisticated philosophical work of recent years. There is every reason to expect that further philological work in the editing and translating of texts will lead directly to still more progress of a philosophical sort. Here again, however, we see another challenging feature of the era: the importance of the sort of bedrock historical and philological research that in other historical periods has long since been brought to a very high standard. This is a challenge, but also a compelling feature of the period, because here one can make the sorts of fundamental historical contributions that in ancient philosophy, for instance, were made by famed scholars of previous centuries. It is crucial to the future of medieval philosophy that the broader philosophical community be brought to recognize the importance of such scholarly initiatives, even when they lack the sort of immediate philosophical payoff that the profession has now come to expect in other areas.

THIRTY DESIDERATA FOR RESEARCH ON MEDIEVAL PHILOSOPHY IN THE TWENTY-FIRST CENTURY

PETER ADAMSON

1. What impact did ideas and problems from Islamic speculative theology (*kalām*) have on the tradition of Greek-inspired philosophy (*falsafa*) in Arabic, for instance on thinkers such as Avicenna?

of works that remain both unedited and untranslated, alongside the many works that have been published since 1982.

2. What were the distinctive achievements of the Arabic logical tradition, especially in modal logic? What impact did these advances have on other areas of philosophy?
3. Many medieval philosophers did important work in the physical sciences, especially medicine. To what extent did their philosophical thought inform their scientific writing and vice versa?
4. Was the eleventh to the fourteenth century the "golden age of Arabic philosophy"?
5. In what way was practical (political and ethical) philosophy in Arabic – and in other traditions as well – dependent on theoretical philosophy (metaphysics, psychology, and epistemology)?

JOHN MARENBON

1. The Byzantine tradition of Aristotelian commentary.
2. The Avicennian tradition of philosophy in Islam, from *ca.* 1300 onwards.
3. Philosophy in the Latin West, 1200–1500, outside the universities.
4. The logico-theological schools of Paris in the period *ca.* 1150 – *ca.* 1200.
5. The scholastic tradition outside the Iberian peninsula, 1500–1700.

DOMINIK PERLER

1. Some ancient texts were available in translation (Plato's *Meno*, Sextus Empiricus's *Outlines of Skepticism*) but did not attract interest. Why?
2. Some intellectual centers and schools had extensive interchanges, whereas others had none. (For instance, William of Ockham and Meister Eckhart were contemporaries, but they do not seem to have been interested in each other.) Why?
3. All medieval philosophers agreed that we can have doubts about this or that example of knowledge, but never about the possibility of knowledge in general. Why?
4. Medieval philosophers had endless debates about the function of intellect and will or about the relationship between sensory and intellectual faculties, but they basically agreed that there are such things as faculties of the soul. Why did they not question the existence of faculties, as so many early modern philosophers did?
5. Was there any medieval philosopher who held that colors are not to be found in material objects but only in our mind? If not, why? Is this principle the decisive difference between medieval and early modern philosophy?

IRÈNE ROSIER–CATACH

1. The relationship between law and philosophy of language: for example, theories of lies, of falsity, and the semantics of interpretations. Also, interrelations between moral philosophy and law: for instance, the problem of intention.

2. Was there a political aspect, purpose, or background to philosophical controversies? Did philosophical and theological theories have political influence, were they themselves influenced by political problems, or were they totally speculative?

3. The development of speculative grammars in the thirteenth and fourteenth centuries, and the various forms of opposition to it. Very little is know about this. Texts should be edited, especially commentaries on Michel of Marbais and Thomas of Erfurt.

4. What was the relevance of the way in which university curricula and the faculties were organized on the development of philosophical doctrines?

5. Methodological reflections on the production of knowledge in the Middle Ages: especially how is one to read a *text*, knowing that very often we have it preserved in many versions, slightly or highly different from each other, sometimes in interpolated versions containing different strata of doctrines. In which way can we then talk of *the* position of an author? How are we to handle the anonymous production of texts that is so important in the arts faculty?

M.W. F. STONE

1. The full and synoptic study of medieval moral thought, which incorporates not just the obvious sources of medieval 'moral philosophy,' but also those areas of canon law, pastoral thought, and confessional writings where matters of ethical interest are discussed.

2. The systematic study of the fifteenth-century schools and the pluralism of late medieval philosophy. This will facilitate an improved understanding of the putative transition of 'medieval' to 'modern' philosophy, and the continuation of the scholastic tradition in the seventeenth and eighteenth centuries.

3. The completion of the *Opera omnia* of Henry of Ghent and Giles of Rome, and the start of new critical editions of Durand of Saint-Pourçain and Peter Auriol. Within twenty years Henry, Giles, Durand, and Auriol will become a part of the canon.

4. Integration of so-called 'philological' and 'philosophical' methods of interpretation, whereby philological/contextualist approaches are appropriated and then improved by means of firm and assured philosophical analysis.

5. A communal appreciation of the importance and intellectual worth of critical editions. A greater encouragement of younger scholars, especially in North America and the UK, to acquire the skills necessary to complete good editions of texts, and for members of the 'philosophical' community to see that such scholarly endeavors are indispensable to the good order of the subject of medieval philosophy.

ROBERT PASNAU

1. A clearer appreciation of the respects in which Thomas Aquinas is dependent on earlier Latin and Arabic thought, so that we can have a clearer appreciation of the respects in which he is original.

2. An intensive scholarly effort to grasp the brilliant philosophers of the mid-fourteenth century, especially John Buridan and Nicole Oresme.
3. A comprehensive dictionary of Latin philosophical terms.
4. The integration of research into Latin and Arabic sources, so that a continuous story can be told about what is, very nearly, a continuous philosophical tradition across three faiths.
5. A narrative for medieval philosophy that can be taught to undergraduates in a single term, and that would give the field a core curriculum of texts and philosophical problems analogous to those of the early modern era.

The wide range of suggestions for future research reveals still another challenging feature of medieval philosophy: the absence of any settled canon of texts and problems – especially in the English-speaking world. One hundred years ago, medieval scholarship rallied largely around the great theological *summae* of Thomas Aquinas and others. Within the last half century, considerable attention has been paid to scholastic logical texts, and to natural philosophy. Even within this limited domain there is little sense of a core curriculum, and moreover that domain is far too limited to do justice to the field. Each desiderata list makes its own suggestions about fruitful areas for further investigation. John Marenbon mentions, among other things, the severely neglected field of Byzantine philosophy. Peter Adamson wonders about Arabic logic. Irène Rosier-Catach asks about the relation between legal theory and the philosophy of language. As the field broadens in these and other directions, however, it will face the countervailing challenge of articulating a concise, compelling narrative for the period. Both the ancient and early modern periods have long since embraced such narratives, and the resulting clusters of texts and problems now form a part of what any philosopher must know. It is hardly an exaggeration to say that there is nothing from the medieval period, except perhaps Anselm's ontological argument and Aquinas's Five Ways, that has achieved this sort of canonical status. This is not because medieval philosophy is less worthy of study, but because scholars in the field have not yet found a unifying narrative that would engage the attention of a broader philosophical audience.

Whether the period deserves such attention depends entirely on the quality of its philosophical thought. One can hardly study the history of philosophy without being responsive to this concern. For as much as any historian should value historical scholarship for its own sake, as intrinsically worthwhile, the study of philosophy's history has special value because philosophical understanding is valuable, and is often best achieved by setting to one side the assumptions of one's own era and immersing oneself in the most brilliant work of earlier centuries. There is no point in simply insisting that medieval philosophy is worthwhile

in this regard; one must show that it is, case by case. The chapters to come do just this across a wide range of areas. Most familiar is medieval work in philosophical theology, and in the development of an Aristotelian metaphysics and ethics. Even here, scholars have barely begun to convey the richness of the extant material. Yet as many of the following chapters show, medieval philosophy goes well beyond these relatively familiar areas, into logic and language, natural philosophy, cognitive theory and epistemology, moral psychology, and much more.

Ultimately, the status among today's philosophers of this or any historical period can be expressed as a function of two factors: the worth we place on the philosophical ideas of that period, as measured against the worth we place on our own contemporary ideas. In view of the second factor, this is not a good time for historical scholarship in any area of philosophy. We live in an era that – for reasons that are unclear – regards with great self-satisfaction its own philosophical accomplishments, to such a degree that it has little time for the ideas of previous generations. Still, to the extent there is room in the profession for historical inquiry at all, it is a good time to study the medieval era. Whereas fifty years ago one could hardly express interest in the topic without risking marginalization, the intervening years have seen a dramatic shift in the field's reputation. Although few philosophers know very much about medieval philosophy, it is now widely recognized as fertile ground for historical inquiry. There is, then, no longer any need for special pleading regarding the merits of medieval philosophy; that case has been made by the labors of prior generations. All that remains for us is to go out and do the work.

I

FUNDAMENTALS

ORIGINS IN BAGHDAD

DIMITRI GUTAS

THE END OF PHILOSOPHY IN LATE ANTIQUITY AND THE REMNANTS OF GREEK THOUGHT

Philosophy died a lingering death before Islam appeared. The long demise started arguably with the reign of Diocletian (284–305), as the social, demographic, administrative, and other changes that would eventually lead to the end of the ancient world first set in; in consequence of these changes, philosophy – as the living practice of rational thinking about human beings and the universe outside socially instilled and institutionally sanctioned mythologies and superstitions – was seen to represent attitudes and habits of mind little appreciated and even less tolerated.[1] After Justinian's 529 edict prohibiting pagans to teach, whatever was left of the much attenuated academic practice of philosophy limped on for another two or three generations until, as the current interpretation of the evidence has it, the last philosopher in Alexandria, Stephanus, was invited by the Emperor Heraclius to Constantinople around 610. And that is the last we hear for some time of philosophy *in Greek*, for in the ensuing two centuries – during, that is, the Iconoclastic controversy in Byzantium and the so-called "Dark Ages" – philosophical treatises were not even copied, let alone composed.[2] This situation continued until the Macedonian renaissance of the

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[1] The story of the demise has not been told in the detail it deserves except, characteristically, in the work of Ramsay MacMullen who provides the social context and ample documentation. See in particular his *Christianity and Paganism in the Fourth to Eighth Centuries* (New Haven: Yale University Press, 1997) ch. 3, esp. pp. 83–92. Also useful for this discussion is his characterization of philosophy as thinking "along lines of reason, along lines of the likely," and as the "sceptical and empirical-thinking extreme" of "the spectrum of belief" (pp. 77 and 83); see p. 205 n. 27 for references to earlier treatments. More recently, MacMullen has revisited the same subject in *Voting about God in Early Church Councils* (New Haven, CT: Yale University Press, 2006) ch. 4. For the social transformations in late antiquity, see the work of John F. Haldon, and especially his *Byzantium in the Seventh Century: The Transformation of a Culture* (Cambridge: Cambridge University Press, 1990).

[2] Dimitri Gutas, "Geometry and the Rebirth of Philosophy in Arabic with al-Kindī," in R. Arnzen and J. Thielmann (eds.) *Words, Texts and Concepts Cruising the Mediterranean Sea* (Leuven: Peeters, 2004) pp. 195–6.

second half of the ninth century when there was, if not a resurrection of philosophy, at least renewed interest in philosophical literature apparently occasioned by the Graeco-Arabic translation movement in Baghdad.[3] The interest manifested itself in the transcription of philosophical writings in new manuscript copies – an activity to which we owe the very survival of many an ancient text – and in the production of some logical scholia by men like Photius and Arethas.

The emphasis on the language is intended to highlight the fact that philosophy in antiquity was done in Greek. After Alexander the Great and the spread of Hellenism throughout the Near East, it is in fact remarkable that although *participation* in philosophy became internationalized, its *expression* was not envisaged in anything but Greek. Even after the Hellenistic empire of Alexander's successors was supplanted by that of the Latin-speaking Romans, the usual linguistic development – the language of the empire imposing itself on *cultural* activities – did not take place, and even philosophers whose mother tongue was not Greek did philosophy not in Latin but in Greek. A pertinent case in point is that of Plotinus and Porphyry. Plotinus, who dominated ancient philosophical activity in Rome in the middle of the third century, was most probably a native speaker of Latin, while his most eminent student, Porphyry, was a native Aramaic speaker from Tyre on the eastern coast of the Mediterranean. Nevertheless, they both wrote their very influential philosophy in Greek; what is even more interesting, the rather sloppy Greek style of Plotinus (Longinus, the great literary critic, calls it "defective" [*diēmartēmena*])[4] was corrected by Porphyry in preparation for an edition of Plotinus's work. To be sure, there were attempts at translating the philosophy that was written in Greek into other languages – the presumed intention being to implant it in the cultures of the target languages – but such attempts, in the end, did not produce the intended results. Two great contemporary scholars at the antipodes of the cultural spread of Hellenism, Boethius in Rome (d. 525) and Sergius of Rēš'aynā in northern Mesopotamia (d. 536), conceived of the grand idea of translating all of Aristotle into Latin and Syriac respectively.[5] The conception is to their credit as individual thinkers for their noble intentions; their failure indicates that the receiving cultures in which they worked had not developed the need for this enterprise. Philosophy in Latin was to develop, even if on some of the foundations laid by Boethius, much later,[6] while in Syriac it reached its highest point with BarHebraeus in

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[3] Dimitri Gutas, *Greek Thought, Arabic Culture* (London: Routledge, 1998) pp. 175–86.

[4] Porphyry, *Life of Plotinus*, par. 19 (lines 21 and 27).

[5] See Henri Hugonnard-Roche, "Aux origines de l'exégèse orientale de la logique d'Aristote: Sergius de Rēš'aina († 536), médecin et philosophe," *Journal Asiatique* 277 (1989) p. 12.

[6] And under the incentive, it appears, provided by the existence of Arabic philosophy even before the Arabic–Latin translations; but see below, Chapter 2.

the thirteenth century only after it had developed in Arabic and was translated from it.[7] The rebirth of philosophy in Arabic in the first third of the ninth century has to be seen against this background in order for its revolutionary character to be fully realized.

If living philosophy was dead in Greek and had, furthermore, failed to be transplanted and to acquire an independent status in other languages, what survived were its physical remains in the form of manuscripts and libraries,[8] as well as certain – much reduced, enfeebled, and diluted – *philosophical curricula* and *theological applications*, primarily of logical studies, in various schools and communities throughout the area that was to come under Muslim rule and be politically reunited for the first time since Alexander the Great. The following are some specific developments in the various communities in late antiquity that were to provide the necessary, but clearly not sufficient, conditions within which a philosophical tradition was later to be resuscitated, in Arabic.

In Greek, the most significant area to which these curricula were reduced was the rudiments of Aristotelian logic. It is possible, for instance, to discern a major structural change in the medical curriculum in Alexandria toward the end of the sixth century, perhaps as a reaction to the decline of philosophical instruction in that last remaining center of Greek philosophical studies. Some medical professors, whose names are given in the Arabic sources as Gessios, Anqīlāʾus (?), Marinos, and Stephanus of Alexandria (perhaps the same individual mentioned above, offering a last service to philosophy before he left for Constantinople), decided to organize and simplify the medical curriculum. They restricted the number of medical books for study, and they added logic to the curriculum in a formal way, bringing the total number of books a medical student had to study to twenty-four. Logic may have been studied in association with medical studies earlier: Galen's devotion to logic is well known and two at least of his most popular works that were included in this new curriculum – *Ars medica* and *Methodus medendi* – start with significant sections on logical procedures in therapeutic methods. What this new Alexandrian curriculum appears to have done is to have formally included as part of medical studies specific books on logic, namely the first four works in Aristotle's Organon: the *Categories*, *De interpretatione*, *Prior* and *Posterior Analytics*. The medical books consisted, in turn, of four books by Hippocrates (*Aphorisms*, *Prognosticon*, *Acute Diseases*, and *Airs*, *Waters*, *Places*), and abridged versions and summaries of sixteen Galenic

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[7] Gutas, "Geometry and the Rebirth of Philosophy," p. 196; but also see John Watt, "Syriac Translators and Greek Philosophy in Early Abbasid Iraq," *Journal of the Canadian Society for Syriac Studies* 4 (2004) p. 15.

[8] See now the collection of articles in Cristina D'Ancona (ed.) *The Libraries of the Neoplatonists* (Leiden: Brill 2007).

books, collectively known as the *Summaria Alexandrinorum*. Accounts of this new curriculum, like the texts of Galen's summaries, have not survived in Greek, but they are prominent in Arabic medical and bibliographic literature that is amply corroborated by the scattered indications that have survived.[9] How far beyond the Islamic conquest of Alexandria (in 642) this instruction continued in Greek is not known, nor is there any evidence that this curriculum was transplanted to another city within the new and much reduced borders of the Byzantine Empire. Nevertheless, this is the only indication we have even of any kind of philosophical *instruction* in Greek; active philosophizing had ceased to exist.[10]

The theological applications of philosophy in Greek patristic literature, by contrast, were many and longevous, though clearly harnessed to their theological, apologetic, and polemical goals rather than free philosophical discourse. To the extent, however, that the patristic authors had been exposed to Greek philosophy, they could be expected to be knowledgeable about individual philosophers and the main philosophical currents. The sixth-century theologian John of Scythopolis in Palestine, for example, wrote the first known commentary on the writings of pseudo-Dionysius, in which he incorporated apparently extensive quotations from, and paraphrases of, passages in the *Enneads*. The pseudo-Dionysian work, *On the Divine Names*, was translated again into Syriac by Phokas ibn Sarjīs some time in the early eighth century, this time together with scholia by John. In this way some Plotinian material became available in Syriac translation, for we have no information that the *Enneads* as such was ever translated into Syriac.[11] This casts an interesting light on the selective Arabic translation of *Enneads* IV–VI a century later by Ibn Nā'ima al-Ḥimṣī; if none of the Plotinian texts known to have been quoted by John reappears in the extant Arabic Plotinus, it gives some indication of the intellectual milieu in which the Arabic Plotiniana may have their roots.[12]

In Syriac Christianity, as in Greek, there is a similar development of a logical curriculum, except that it was rather shorter: the books studied and commented

[9] Dimitri Gutas, "The 'Alexandria to Baghdad' Complex of Narratives: A Contribution to the Study of Philosophical and Medical Historiography among the Arabs," *Documenti e studi sulla tradizione filosofica medievale* 10 (1999) pp. 169–74; Mossman Roueché, "Did Medical Students Study Philosophy in Alexandria?" *Bulletin of the Institute of Classical Studies* 43 (1999) 153–69.

[10] For a sample of elementary logical schoolbooks in circulation at this time see Mossman Roueché, "Byzantine Philosophical Texts of the Seventh Century," *Jahrbuch der Österreichischen Byzantinistik* 23 (1974) 61–76.

[11] Sebastian Brock, "A Syriac Intermediary for the Arabic Theology of Aristotle? In Search of a Chimera," in D'Ancona, *The Libraries of the Neoplatonists*, pp. 293–306.

[12] See Brock, "Chimera," and Richard M. Frank, "The Use of the Enneads by John of Scythopolis," *Le Muséon* 100 (1987) 101–8. This and other papers by Frank are reprinted in *Islamic Mysticism, Theology, and Philosophy: Texts and Studies on the Development of Kalam*, ed. D. Gutas (Aldershot: Ashgate, 2005).

upon were Porphyry's *Isagoge* and Aristotle's *Categories*, *De interpretatione*, and *Prior Analytics* – but only as far as Book I, Chapter 7, omitting the section on modal logic and the rest of the treatise. The reasons for this are not yet clear; it has been suggested that in Syriac there developed – or was adapted – an understanding of modality based on logical matter, and hence there was no interest in Aristotle's modal logic based on logical form.[13] The rest of the Aristotelian Organon appears to have been hardly studied, if at all. There are references to Syriac translations of the *Posterior Analytics*, *Topics*, and *Sophistics* by Athanasius of Balad (d. 686), done before the Graeco-Arabic translation movement, but it seems hardly likely that they amounted to much or were conducive to further study; the Baghdad Aristotelians in the tenth century, who had access to these versions, uniformly condemned them as hopelessly inaccurate.[14] Similarly there are no Syriac commentaries attested for these later treatises of the Organon before the beginnings of Arabic philosophy. Awareness among Syriac scholars of these works and their tradition certainly existed, but their study, let alone creative thinking about the issues discussed in them, was not part of the procedures in the Syriac schools.[15] What was, was the application of certain logical categories and an occasional biblical thesis (like the question of the creation of the universe) to theological training and analysis, and more importantly, to theological disputations and inter-faith debates.[16]

Some of these debates took place within the borders of the Persian Sasanian Empire (226–642), between representatives of the Nestorian community and Zoroastrians. It is evident that classical learning had also permeated Middle Persian literature (though perhaps not to the same extent as it did Syriac), mainly through translations, but also through osmosis and interpersonal contact.

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[13] Henri Hugonnard-Roche, *La logique d'Aristote du grec au syriaque* (Paris: Vrin, 2004) p. 273.

[14] Ibn Suwār, for example, writes in a note in the Paris ms. of the Arabic Organon (Bibliothèque Nationale Ar. 2346) that Athanasius understood nothing of the *Sophistics*; see Khalil Georr, *Les Catégories d'Aristote dans leurs versions syro-arabes* (Beirut: Institut français de Damas, 1948) pp. 198–9.

[15] For a list of Syriac translations and commentaries of the Organon see Sebastian Brock, "The Syriac Commentary Tradition," in C. Burnett (ed.) *Glosses and Commentaries on Aristotelian Logical Texts* (London: Warburg Institute, 1993) 3–18. Watt, "Syriac Translators," collects all the available evidence to present a more favorable picture of Syriac involvement with the Aristotelian logical tradition than the one presented here, but the knowledge *about* this tradition that he documents to have been possessed by Syriac scholars does not amount to an active engagement with the problems it discusses. See the summary account by Hans Daiber, "Die Aristotelesrezeption in der syrischen Literatur," in D. Kuhn and H. Stahl (eds.) *Die Gegenwart des Altertums* (Heidelberg: Edition Forum, 2001) 327–45.

[16] This is revealed by some recent and very welcome studies that provide concrete evidence for the structure of theological education and religious disputation in the Syriac schools just before and after the Islamic conquests. See Adam Becker, *Fear of God and the Beginning of Wisdom: The School of Nisibis and Christian Scholastic Culture in Late Antique Mesopotamia* (Philadelphia: University of Pennsylvania Press, 2006) esp. ch. 7, and Joel Walker, *Legend of Mar Qardagh: Narrative and Christian Heroism in Late Antique Iraq* (Berkeley: University of California Press, 2006) pt. 2, ch. 3.

The Sasanian rulers actively endorsed a translation culture that viewed the transferral of Greek texts and ideas into Middle Persian as the "restitution" of an Iranian heritage that was allegedly pilfered by the Greeks after the campaigns of Alexander the Great.[17] It was this cultural context, and the atmosphere of open debate fostered most energetically by Chosroes I Anushirwan (ruled 531–78), that must have prompted the Greek philosophers to seek refuge in his court after Justinian's 529 edict prohibited them from teaching. And yet, though there is evidence for the translation of a number of non-philosophical Greek books into Middle Persian, and of the integration in its literature of a certain amount of knowledge and some use of philosophical material for distinctly non-philosophical purposes, there are no indications that any philosophical literature as such developed in it.[18]

The most important philosopher of the pre-Islamic period known to have come from Sasanian Iran, Paul the Persian, wrote treatises on logic dedicated to Chosroes. Although there are some references to his having written in Middle Persian, the fact remains that his works are extant in Syriac and that he was widely familiar with Syriac logical literature.[19] In general, then, and given the extensive presence of Nestorian Christians in the Sasanian Empire, there does not seem to have existed in it, as far as a philosophical curriculum and its application are concerned, anything drastically different from what is found among Syriac Christians. Finally, in connection with the Greek philosophers in the court of Chosroes, it should also be mentioned that upon their return from Persia they did not move to Ḥarrān (Carrhae) in upper Mesopotamia. The Syriac-speaking population of that city remained obstinately pagan until the eleventh century; they clearly had knowledge of and access to philosophical material, which they happily shared with their Muslim overlords when a demand for it had been generated under the early Abbasids, but there is absolutely no evidence either that they developed a philosophical tradition among themselves

[17] Gutas, *Greek Thought*, pp. 34–45, with belated acknowledgment to Shaul Shaked, "Paymān: An Iranian Idea in Contact with Greek Thought and Islam," in *Transition Periods in Iranian History* (Paris: Association pour l'Avancement des Études Iraniennes, 1987) p. 217 and n. 2.

[18] Most accounts of philosophical activity in Sasanian Iran concentrate on Chosroes – see, e.g., Michel Tardieu, "Chosroès," in *Dictionnaire des Philosophes Antiques* (Paris: CNRS Éditions, 1994) II: 309–18, and Joel Walker, "The Limits of Late Antiquity: Philosophy between Rome and Iran," *The Ancient World* 33 (2002) 45–69 – though this culture of translation and openness to Greek learning was apparently characteristic, to a greater or lesser extent, of the entire Sasanian dynasty. For references to the philosophical material in Middle Persian, and a model analysis of the way in which some philosophical ideas were integrated into Persian literature, see Shaked, "Paymān," p. 217 nn. 1 and 2.

[19] Dimitri Gutas, "Paul the Persian on the Classification of the Parts of Aristotle's Philosophy: A Milestone between Alexandria and Baġdād," *Der Islam* 60 (1983) 231–67; Hugonnard-Roche, *Logique d'Aristote*, pp. 233–5; Javier Teixidor, *Aristote en Syriaque* (Paris: CNRS Éditions, 2003).

or that they ran a philosophical academic institution (a Platonic "Academy") gratefully attended by the disappointed Greek philosophers upon their return from Persia.[20]

Other languages that were culturally significant during the period in question and were influenced by Hellenism include Armenian and Georgian. The latter may be discounted insofar as a philosophical literature in translation developed much later than the period from the seventh through ninth centuries with which we are concerned.[21] In the case of Armenian, although it is true that there exist some few translations of Aristotle (*Categories* and *De interpretatione*), Plato (five dialogues), and Porphyry (*Isagoge*), these translations – even if it is accepted that they were made in the course of the seventh century, which is disputed – did not give rise to what may be called a philosophical literature, much less a philosophical movement; it appears that they are to be classed along with the similar productions in Syriac of a philosophical curriculum.[22]

TRANSLATION AND THE RISE OF ARABIC PHILOSOPHICAL LITERATURE

After the advent of Islam, the resurrection of philosophy as Arabic philosophy is intimately connected with the Graeco-Arabic translation movement that started in Baghdad shortly after its foundation in 762 and lasted through the end of the tenth century. This translation movement, during the course of which almost all non-literary and non-historical secular Greek works on science and philosophy were translated upon demand into Arabic, was introduced by the caliphs and the ruling elite of the newly established Arab Abbasid dynasty (750–1258) as an ideological response to pressing political and social problems. Once thus introduced and sponsored from the top, the translation movement found

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[20] Tardieu's deplorable thesis to this effect has been most recently defended by I. Hadot, "Dans quel lieu le néoplatonicien Simplicius a-t-il fondé son école de mathématiques, et où a pu avoir lieu son entretien avec un manichéen?," *International Journal of the Platonic Tradition* 1 (2007) 42–107. For a refutation, see Concetta Luna's review of Rainer Thiel, *Simplikios und das Ende der neuplatonischen Schule in Athen*, in *Mnemosyne* 54 (2001) 482–504, and Edward Watts, "Justinian, Malalas, and the End of Athenian Philosophical Teaching in A.D. 529," *Journal of Roman Studies* 94 (2004) 168–82, and "Where to Live the Philosophical Life in the Sixth Century? Damascius, Simplicius, and the Return from Persia," *Greek, Roman, and Byzantine Studies* 45 (2005) 285–315.

[21] Cf. Michel van Esbroeck, "La version géorgienne de deux commentaires d'Ammonius fils d'Hermias," in G. Fiaccadori (ed.) *Autori classici in lingue del vicino e medio oriente* (Rome: Istituto poligrafico e Zecca dello Stato, Libreria dello Stato, 1990) 55–64.

[22] See Abraham Terian, "The Hellenizing School: Its Time, Place, and Scope of Activities Reconsidered," in N. Garsoian *et al.* (eds.) *East of Byzantium: Syria and Armenia in the Formative Period* (Washington, DC: Dumbarton Oaks, 1980) 175–86, and Constantine Zuckerman, "A Repertory of Published Armenian Translations of Classical Texts," in Fiaccadori, *Autori classici*, esp. pp. 428, 436–8. I am indebted to Kevin van Bladel for a fruitful discussion of the issues raised in this section.

further support from below in the incipient scientific tradition in Arabic, which was developing at the hands of scholars and scientists actively recruited to the capital by the same elite who were commissioning the translations. The dialectic between the translation activity on the one hand and scientific thinking and research on the other was responsible for the amazingly rapid development of the sciences in Arabic in the second half of the eighth century and their establishment as a major cultural force in early Abbasid society.[23]

The beginnings of Arabic philosophical literature can be described as taking place in two stages. The first occurs from roughly the middle of the eighth century until the appearance of al-Kindī in the first third of the ninth century. It is characterized by the continuation of the engagement with the remnants of philosophy in Greek, Syriac, and Middle Persian that have just been reviewed, though in Arabic this time – by the study, that is, of the logical curriculum and the application of philosophical ideas to theological concerns of the time; it is represented by some philosophical texts that appeared in Arabic, in the course of the translation movement, to serve non-philosophical purposes. The second stage begins with al-Kindī and represents a resurrection of philosophy as a discipline in its own right, independent of theological or other concerns.

The first Arabic philosophical text that is extant from the preliminary stage is an abridged and interpolated paraphrase of the beginning of the logical curriculum, covering Porphyry's *Isagoge*, the *Categories*, *De interpretatione*, and *Prior Analytics* up to I.7.[24] An ancient colophon preserved in the manuscript transmission of the work ascribes its "translation" to either the famous *littérateur*, courtier, and translator from Middle Persian, Ibn al-Muqaffaʿ (d. 756) or his son (d. *ca.* 760), thus dating it to the very beginning of the Graeco-Arabic translation movement. Although on linguistic and other grounds it may seem unlikely that either the father or the son would have produced such a text, it is not far-fetched or indeed surprising that Ibn al-Muqaffaʿ the father, in particular, was associated in some capacity with the project. Intellectual life in the caliphal court just before and after the Abbasid revolution (750), during which time Ibn al-Muqaffaʿ was active, revolved around questions of what we would now call rationalism – that is, questions of verifiability of information beyond the claims of revealed religions which necessarily, and notoriously, contradicted each other. This attitude may hearken back to Sasanian times and indeed to the court of Chosroes, as mentioned above, during whose reign such attitudes are

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[23] See the detailed discussion of the Graeco-Arabic translation movement in Gutas, *Greek Thought*.

[24] In addition to the edition by M. T. Daneshpajuh, see Giuseppe Furlani, "Di una presunte versione araba di alcuni scritti di Porfirio e di Aristotele," *Rendiconti della R. Accademia Nazionale dei Lincei* 6.2 (1926) 205–13.

attested both in the works of Paul the Persian and in the introduction to the Middle Persian version of the Indian fable book and mirror for princes, *Kalīla wa-Dimna*. Ibn al-Muqaffaʿ, with his translation of the *Kalīla wa-Dimna* and its introduction into Arabic,[25] and in view of its manifestly enthusiastic reception in early Abbasid society, may also have been reflecting this rationalistic attitude in wider intellectual circles. In this context, his affiliation with the project of the production in Arabic of these texts from the Organon – perhaps as editor, given his mastery of Arabic style – is easily understandable.[26]

The occasion which prompted the production of this work is not known, but it clearly must reflect some attempt to put into Arabic the main texts of the logical curriculum then available, for the Arabic text intends to present precisely what that curriculum studied: Porphyry's *Isagoge* and the first four treatises of the Organon. In this regard, the text belongs to the Greek, rather than the Syriac, tradition of this curriculum, as described above. However, despite the author's express statement in the text to present all four books, in effect the text breaks off after *Prior Analytics* I.7, thus following Syriac practice.[27] How these two traditions became entangled in this case is not known. The nature of the texts selected for presentation shows that there were no philosophical intentions behind the choice: texts of this nature were routinely read in schools as part of the curriculum, and had no aspirations to philosophical profundity. One may guess that the commissioning of this work must have come from a wish to have in Arabic what students were reading in the Christian schools as part of their general education,[28] and that somehow this wish was related to the social developments at the very beginning of the Abbasid dynasty – or perhaps, more specifically, to the increased interest in the theological implications of the grammar of statements, the structure and logic of language, and consequent meaning, issues manifestly treated in the first works of the Organon.[29]

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[25] See Paul Kraus, "Zu Ibn al-Muqaffaʿ," *Rivista degli Studi Orientali* 14 (1934) 1–20; Francesco Gabrieli, "L'opera di Ibn al-Muqaffaʿ," *Rivista degli Studi Orientali* 13 (1931–2) pp. 201–5.

[26] See in general Josef van Ess, *Theologie und Gesellschaft im 2. und 3. Jahrhundert Hidschra: Eine Geschichte des religiosen denkens im fruhen Islam* (Berlin: De Gruyter, 1991–7) II: 22–36; Cornelia Schöck, "Aussagenquantifizierung und –modalisierung in der frühen islamischen Theologie," in D. Perler and U. Rudolph (eds.) *Logik und Theologie* (Leiden: Brill, 2005) 19–43; Michael Cooperson, "Ibn al-Muqaffaʿ," in O. Leaman (ed.) *The Biographical Encyclopaedia of Islamic Philosophy* (London: Thoemmes, 2006) I: 280–6, who also discusses the issue of the authorship of the logic version.

[27] Gutas, "Alexandria to Baghdad," pp. 183–4.

[28] The Muslims appear to have been very much aware of the existence (and usefulness) of this curriculum in Syriac among the Christians: al-Kindī expressly refers to it in his polemic against the doctrine of the Trinity; see Peter Adamson, *Al-Kindī* (Oxford: Oxford University Press, 2006) p. 41.

[29] See Gérard Troupeau, "La logique d'Ibn al-Muqaffaʿ et les origins de la grammaire arabe," *Arabica* 28 (1981) 242–50; Rafael Talmon, "Naẓra ǧadīda fī qaḍiyyat aqsām al-kalām: dirāsa ḥawl kitāb Ibn

Other more easily identifiable social, political, and ideological concerns also played a role during this first stage of the appearance of philosophical texts and arguments in Arabic. Certainly the most significant of them was the development of Islamic theology and the intense debate among the various groups and individuals about its eventual orientation. It is generally acknowledged that the first discussions of a theological nature among Muslims were the result of political and social developments during the first century of Islam, before the beginning of the translation movement. At the center of discussion were the questions of legitimacy of succession to the caliphate, the relationship of leadership to faith, and the concomitant problem of unbelief when that relationship was considered by some factions as inadequate. The conflicting views that were expressed on these controversial issues eventually gave rise to theological positions, or to a theology of controversy (*Kontroverstheologie*), as termed by Josef van Ess, which constituted part of the political discourse of the nascent Muslim society.[30] Right after the turn of the first Islamic century and just before the Abbasid revolution (*ca.* 720s), however, a new, cosmological element was introduced into theological discussions – in particular, atomism – apparently through the Manichean sects.[31] The need for a cosmology other than atomism occasioned the translation of Aristotle's *Physics* by the end of the eighth century, a work that was repeatedly to be re-translated (or revised).[32] Also related to such theological disputes is the appearance, in the first half of the eighth century and before the beginning of the translation movement, of certain Plotinian ideas in the theology of Jahm Ibn Ṣafwān (d. 746), ideas that, in this case, appear to have traveled without written translations.[33]

Another aspect of theological discussions that played a role in philosophical arguments is apologetics – that is, Muslim disputations with non-Muslims, a practice directly affiliated with inter-faith debates in both Greek and Syriac in pre-Islamic times. The need for Muslims, as newcomers to the genre, to understand better the rules of dialectical argumentation prompted the caliph al-Mahdī (ruled 775–85) to commission a translation of the best handbook on the subject – Aristotle's *Topics* – from the Nestorian Patriarch Timothy I, whom he debated; thus, there appeared what was to be the first of three Arabic

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al-Muqaffaʿ fī l-manṭiq," *al-Karmil* 12 (1991) 43–67; and esp. Schöck, *Koranexegese, Grammatik und Logik. Zum Verhältnis von arabischer und aristotelischer Urteils-, Konsequenz- und Schlusslehre* (Leiden: Brill, 2006) ch. 7.

[30] Van Ess, *Theologie und Gesellschaft*, I: 48; Gutas, *Greek Thought*, p. 70.

[31] Especially the Bardesanites; see van Ess, *Theologie und Gesellschaft,* I: 418ff.; Alnoor Dhanani, *The Physical Theory of Kalām* (Leiden: Brill, 1994) pp. 182–6.

[32] Gutas, *Greek Thought*, pp. 69–74.

[33] Richard M. Frank, "The Neoplatonism of Ǧahm ibn Ṣafwān," *Le Muséon* 78 (1965) 395–424.

translations of this Aristotelian treatise.[34] Such debates continued unabated in the following centuries.[35]

In all these discussions, the philosophical arguments and texts whose translation was sought were geared to the service of other concerns, primarily political and theological. There was no question of an interest in philosophy as such. With al-Kindī at the beginning of the ninth century, however, there is a qualitative change in the approach to these subjects, and philosophy is introduced as an intellectual discipline independent of religion and other ideological currents.

AL-KINDĪ AND THE REBIRTH OF PHILOSOPHY

Al-Kindī (*ca.* 800 – *ca.* 870), the first to develop philosophical thought as such in Arabic, was a polymath in the translated sciences and very much a product of his age. Like other scientists of his time, he gathered around him a wide circle of individuals capable of advising him on various issues and translating the relevant texts. He commissioned translations of scientific subjects and he himself wrote on all the sciences: astrology, astronomy, arithmetic, geometry, music, and medicine – he even has a treatise on swords.[36] This broad and synoptic view of all sciences, along with the spirit of encyclopedism fostered by the translation movement for the half century before his time, led him to an overarching vision of the unity and interrelatedness of all knowledge. At the same time, and as a result of this view, he developed a unitary epistemological approach – namely, that of mathematics. His goal became to approach mathematical accuracy in his argumentation; influenced by both Ptolemy and Euclid, he held mathematical or geometrical proof to be of the highest order. In the introduction of the *Almagest*, Ptolemy says the following about scientific method:

From all this we concluded that the first two divisions of theoretical philosophy should rather be called guesswork than knowledge, theology because of its completely invisible and ungraspable nature, physics because of the unstable and unclear nature of the matter; hence there is no hope that philosophers will ever be agreed about them; and that only mathematics can provide sure and unshakable knowledge to its devotees, provided one approaches it rigorously. For its kind of proof proceeds by indisputable methods, namely arithmetic and geometry (tr. Toomer, p. 6).[37]

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[34] Gutas, *Greek Thought*, pp. 61–9; Watt, "Syriac Translators," pp. 17–19, with references to recent literature.

[35] See in general Sidney Griffith, *The Church in the Shadow of the Mosque* (Princeton, NJ: Princeton University Press, 2008) esp. ch. 4.

[36] Recently edited and translated with commentary and related texts by R. G. Hoyland and B. Gilmour, *Medieval Islamic Swords and Swordmaking* (Cambridge: Gibb Memorial Trust, 2006).

[37] This assessment of the relative epistemological value of the objects of physics, mathematics, and metaphysics became the standard view (directly borrowed from Ptolemy?) in the prolegomena

Al-Kindī echoed this understanding in his paraphrase of the *Almagest* where he spoke about the "true methods of mathematics that are manifested by geometrical and arithmetical proofs, which contain no doubt at all" (*Ṣinā'a*, ed. Aḥmad, p. 127). In his philosophical writings he regularly employed certain proofs where his method is clearly derived from the *Elements* of Euclid,[38] and he maintained that a prerequisite for the study of Aristotle's philosophy, even of logic, was mathematics. In this he was clearly influenced by Proclus's *Elements of Theology*, a partial translation of which he commissioned. Proclus thus appears to be the link that connects al-Kindī's mathematical (indeed, geometrical) epistemology with philosophy. Proclus's work, with its geometrical mode of argumentation, was living proof for al-Kindī that abstract problems, such as those debated by the theologians of his time – Muslims and non-Muslims alike – could be resolved through philosophical discourse which transcends religious sectarianism and proceeds on the basis of a geometrical methodology acceptable to all, just like the rest of the sciences. Al-Kindī's coming to philosophy was therefore secondary and the result of his earlier preoccupations with science and scientific method; it was not primary.

Once introduced to philosophy in this fashion by Proclus – and, hence, to the possibility that theological questions can be treated with an amount of certainty equal to that in the mathematical sciences – al-Kindī tried to gain access to this methodologically rigorous discipline. Accordingly he commissioned, and then corrected and edited, translations of Greek metaphysical texts, foremost among which are the selections from Plotinus (*Enneads* IV–VI) and Proclus (*Elements of Theology*) in Arabic known respectively as the *Theology of Aristotle* and *The Pure Good* (*Liber de causis* in the medieval Latin translation), as well as Aristotle's *Metaphysics*. Al-Kindī and the circle of scholars he gathered around him further commissioned translations of other Greek works, both philosophical and scientific; a full list of what is now known would include, in addition to the works already mentioned, pseudo-Ammonius's *De placitis philosophorum*, Euclid's *Elements* and Proclus's commentary on it (at least the first book), Proclus's *Elements of Physics*, Nicomachus of Gerasa's *Introduction to Arithmetic* and *Great Book on Music*, Aristotle's *De caelo*, *Meteorology*, *De animalibus*, *De anima*, *Parva naturalia*, and *Prior Analytics*, Alexander of Aphrodisias's *Questions*, and possibly

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to philosophy by late antique philosophers like David and Elias, who, however, true to their Aristotelian tradition, championed logic, not mathematics, as the method leading to certainty (see the translation and discussion of their relevant passages in Gutas, "Paul the Persian," pp. 247–9). Al-Kindī, though he may have known about their works, does not appear to be directly indebted to them.

[38] Roshdi Rashed, "Al-Kindī's Commentary on Archimedes' 'The Measurement of the Circle'," *Arabic Sciences and Philosophy* 3 (1993) 7–12; Gerhard Endress, "Mathematics and Philosophy in Medieval Islam," in J. P. Hogendijk and A. I. Sabra (eds.) *The Enterprise of Science in Islam* (Cambridge: Cambridge University Press, 2003), pp. 127–31; Adamson, *Al-Kindī*, p. 36 and ch. 7.

Porphyry's *De anima*.[39] Al-Kindī appears to have paid significant attention also to Platonic texts, especially to the Socratic dialogues, echoes of which we can still find in some of the surviving titles and fragments of his works.[40] This is as it should be, given his encyclopedic interests; nevertheless, the core of his philosophical enterprise was centered in the geometrical approach to the solution of all problems associated with metaphysics and cosmology.

This focus explains the fragmentary nature of the translations from Proclus and Plotinus that he commissioned, just as it explains his philosophical eclecticism: he was interested primarily in the question of the One or God as the first principle and in all the issues – methodological, metaphysical, cosmological – related to that concept; he was, accordingly, fashioning his own approach from the *disjecta membra* of Greek philosophy available in the written (but not living) tradition. This is why his philosophical thinking does not belong to a school tradition, why it does not rest on preexisting translations of Greek philosophical works, and why it is an original creation, in Arabic, of the intellectualism of early Abbasid society.[41]

Al-Kindī's work revived philosophy as living practice and introduced it in the new social environment of Abbasid Baghdad by making it relevant to its intellectual concerns and widely acceptable as the indispensable means for critical and rigorous thinking based on reason, not authority. The resurrection of philosophy in Arabic in the early ninth century was a revolutionary event, as mentioned above, because up to that point anybody doing philosophy creatively in multicultural post-classical antiquity – regardless of linguistic or ethnic background – did it in Greek, while all the other philosophical activities were derivative from, and dependent upon, the main philosophizing going on simultaneously in Greek. When Arabic philosophy emerged with al-Kindī, however, the situation was completely different: it was from the very beginning independent, it chose its own paths, and it had no contemporary and living Greek philosophy either to imitate or seek inspiration from. Arabic philosophy engaged in the same enterprise Greek philosophy did before its gradual demise, but this time in its own language: Arabic philosophy internationalized Greek philosophy, and through its success it demonstrated to world culture that philosophy is a supranational enterprise. This, it seems, is what makes the transplantation and development of philosophy in other languages and cultures throughout the Middle Ages historically possible and intelligible.

[39] Gerhard Endress, "Building the Library of Arabic Philosophy: Platonism and Aristotelianism in the Sources of al-Kindī," in D'Ancona, *The Libraries of the Neoplatonists*, pp. 335–50.

[40] Dimitri Gutas, "Plato's *Symposion* in the Arabic Tradition," *Oriens* 31 (1988) 36–60, and Endress, "Building the Library," pp. 332–3.

[41] For the argument and details see Gutas, "Geometry and the Rebirth of Philosophy."

Arabic philosophy was also revolutionary in another way. Although Greek philosophy in its declining stages in late antiquity may be thought to have yielded to Christianity, and indeed in many ways imitated it, Arabic philosophy developed in a social context in which a dominant monotheistic religion was the ideology par excellence. Because of this, Arabic philosophy developed as a discipline not in *opposition* or *subordination* to religion, but *independent from religion* – indeed from all religions – and was considered intellectually superior to religion in its subject and method. Arabic philosophy developed, then, not as an *ancilla theologiae* but as a system of thought and a theoretical discipline that transcends all others and rationally explains all reality, including religion.

A SECOND BEGINNING

Colossal as al-Kindī's achievement (and that of the society which fostered it) was, the practice of his immediate line of successors – notably al-Sarakhsī, Abū Zayd al-Balkhī, and al-ʿĀmirī – slowly evaporated into apologetics. The cause of philosophy was taken up by a new generation of thinkers, however, who reintroduced it, as it were, to Baghdad, benefiting from the fact that it had won a permanent place in the intellectual environment there through the efforts of al-Kindī and his circle.

In ways that have not yet been properly understood, philosophy had a second beginning in Abbasid society by the end of the ninth century after the death of al-Kindī, clearly in response to additional demand, but this time in a largely Aristotelian vein. The protagonist in this case was the Nestorian Christian Abū Bishr Mattā ibn Yūnus, who came from Dayr Qunnā on the Tigris south of Baghdad. His Aristotelianism, which can be surmised to have been based on the philosophical curriculum known, if not actually practiced, at the monastery at Dayr Qunnā, can be traced directly to the Alexandrian commentators of late antiquity and reaches beyond them to Alexander of Aphrodisias and Themistius.[42]

The philosophical curriculum introduced by Mattā and the line of Baghdad Aristotelians that he established followed the classification of the sciences current in Alexandria in late antiquity, a classification that had developed from that of Aristotle's works.[43] Aristotle's Organon, including the *Rhetoric* and *Poetics*,

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[42] Gerhard Endress, "Mattā b. Yūnus," in H. A. R. Gibb (ed.) *The Encyclopaedia of Islam*, 2nd edn (Leiden: Brill, 1960–97) VI: 844–6.

[43] Gutas, "Paul the Persian," esp. pp. 240–6, and 261–6. For a detailed treatment of the classification of the parts of philosophy (or of all the sciences) in late antiquity and early Islam, a subject of singular significance in the formation and transmission of philosophical curricula and education, see Christel Hein, *Definition und Einteilung der Philosophie von der spätantiken Einleitungsliteratur zur arabischen Enzyklopädie* (Frankfurt: Lang, 1985).

and prefaced by Porphyry's *Isagoge*, constituted the canonical nine books of logic, the instrument of philosophy. Philosophy proper was then divided into theoretical and practical components; theoretical philosophy was further subdivided into physics, mathematics, and metaphysics, and practical philosophy into ethics, economics (household management), and politics. This entire curriculum, including all the extant works of Aristotle, was translated into Arabic, in some instances by the Baghdad Aristotelians themselves. The corpus of Aristotle's writings (with the exception of the *Politics*, which was apparently made available only in excerpts at various intervals, the *Eudemian Ethics* and some of the lesser zoological treatises), together with the complete range of commentaries from Alexander of Aphrodisias onwards, was established as the Arabic curriculum of school textbooks in logic, physics, metaphysics, and ethics by Mattā Ibn Yūnus, who also provided the guidelines of a method for their study.

His colleague al-Fārābī, al-Fārābī's student Yaḥyā ibn ʿAdī, and the wide circle of disciples of the latter, prominent among whom were Abū Sulaymān al-Sijistānī, ʿĪsā ibn Zurʿa, al-Ḥasan ibn Suwār, ʿAlī ibn al-Samḥ, and Abū al-Faraj ibn al-Ṭayyib, engaged in rigorous textual analysis and philosophical interpretation of Aristotle's works, as well as composing commentaries and independent monographs on all branches of philosophy.

The significance of the Baghdad Aristotelians lies not only in their cultivation and dissemination of a rigorous Aristotelianism but also – and perhaps more importantly – in their development of a scholarly and philological approach to the study of the translated texts in the Aristotelian tradition. In their efforts to understand the meaning of these texts precisely, they frequently prepared new translations of the key texts, compared and collated earlier Syriac and Arabic translations, and lavishly annotated the school textbooks of their tradition.[44] They established Aristotelianism as the dominant philosophical current in Baghdad and, by extension, throughout the Islamic world. Their teachings traveled to Islamic Spain, where they formed the foundation of philosophical activity generally, and in particular the twelfth-century philosophy of Averroes. In the East, Avicenna effected in the eleventh century a grand philosophical synthesis of both preceding lines of philosophy, al-Kindī's and al-Fārābī's; though he benefited from the texts of the Baghdad Aristotelians, he also criticized them severely for their pedantry and lack of philosophical insight. His philosophy, which quickly dominated intellectual life in the Islamic world, put an end to the independent existence of their line by the end of the eleventh century.

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44 To their diligence we owe the survival of the most important (and, for some treatises, the only extant) manuscript of the Arabic Aristotelian Organon (Paris, Bibliothèque Nationale Ar. 2356) and the *Physics* (Leiden, Warner 583).

THE EMERGENCE OF MEDIEVAL
LATIN PHILOSOPHY

JOHN MARENBON

Many scholars are tempted to speak not of an emergence, but a rebirth or reawakening of thought in the Middle Ages, as if the ideas of antiquity had simply been put on hold for a while and then resumed. The image is, however, not just clichéd, but also misleading. We awake refreshed, perhaps, but not fundamentally changed or reinvented. After two and a half centuries, from *ca*. 525 to *ca*. 775, when there seems to have been no philosophizing, Latin Europe did not simply reassume, a little bleary eyed, its former philosophical existence. Indeed, it is even uncertain what that former existence would have been. Late ancient philosophy as practiced in the great Platonic schools of Athens and Alexandria? No; its links with medieval Latin thought, as opposed to Byzantine and Islamic thought, were partial and indirect. Ancient Latin philosophy? But that was hardly a tradition, just a handful of books and authors. Instead of envisaging a reawakening, then, it is more profitable to picture the emergence of a set of cultural circumstances utterly different from those of the ancient world, even once it had been christianized, and then to see in what way people began philosophizing within them. This is the aim of the first two parts of this chapter: the first outlines the places, institutional and intellectual, where philosophy took place from the late eighth to the twelfth century; the second looks at the ways in which thinkers thought philosophically within them – both externally, through written forms, and internally, through forms of argument. In the much briefer third part, I try to justify some of my choices – the way I have identified philosophy, and my marking out *ca*. 780 – *ca*. 1200 (for short: 'the early Middle Ages') as a discrete period in Latin philosophy.

PLACES FOR PHILOSOPHY: THE INSTITUTIONAL SETTINGS

Philosophizing in medieval Latin Europe began in the eighth century, in the royal court of Charlemagne, then moved in the later ninth century to the great monasteries, such as St. Amand and Corbie in northern France, Fleury and

Tours on the Loire, Reichenau in Germany, Bobbio in northern Italy, and St. Gallen in present-day Switzerland. It began to flourish, from the late tenth century, in urban cathedral schools with such figures as Gerbert at Rheims, Fulbert at Chartres, Anselm of Laon at the cathedral school there, and William of Champeaux at Paris. From the 1120s, Paris became the preeminent center.[1] In order to see why the differences between these institutional settings are important for the historian of philosophy, let us look a little more closely at the first and the last of them.

Charlemagne was intimately involved in the new interest in philosophy in his court. One of the earliest, in-part philosophical texts was issued as if it were by Charlemagne himself, no less: the *Work of King Charles against the Synod* (known also as the *Libri Carolini*) – the Latin response to the Greek position on image worship.[2] Charlemagne's leading court intellectual, Alcuin, depicts the king as his pupil, being instructed in logic and rhetoric in two of Alcuin's didactic dialogues. One of these, *On Dialectic*, is the first medieval logical textbook. Of course, Charlemagne's authorship and participation in classroom instruction represent not realities, but an ideology: that of royal approval for logic especially, both as a tool for understanding Christian doctrine and as a weapon in religious controversy. Charlemagne's grandson, Charles the Bald, went further in providing a congenial atmosphere for philosophy. The leading philosopher of this period was John Scottus Eriugena, and he not only taught at the court but was also protected by his royal patron when his critics accused him of heresy.[3] Culturally, Charles the Bald emulated Byzantium; it is no accident that his court philosopher learned Greek and translated and assimilated the Greek Christian Platonists.

Paris became the center for twelfth-century philosophy because of the decision to allow any qualified master to set up a school there, on payment of a fee

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[1] For a general account see Émile Lesne, *Histoire de la propriété ecclésiastique en France*, vol. V: *Les écoles de la fin du VIIIe siècle à la fin du XIIe* (Lille: Facultés catholiques, 1940).

[2] In fact, the author is Theodulf of Orleans. On the philosophical material here, see John Marenbon, "Alcuin, the Council of Frankfurt, and the Beginnings of Medieval Philosophy," in R. Berndt (ed.) *Das Frankfurter Konzil von 794: Kristallisationspunkt karolingischer Kultur* (Mainz: Selbstverlag der Gesellschaft für Mittelrheinische Kirchengeschichte, 1997) II: 603–15; Ann Freeman's introduction to her edition of Theodulf's *Libri Carolini*, printed in the original English version in Ann Freeman, *Theodulf of Orléans: Charlemagne's Spokesman Against the Second Council of Nicaea* (Aldershot: Ashgate, 2003); and, most trustworthy, Eva Bohn, "Candidus and the Continuity of Carolingian Intellectual Life after Alcuin" (Ph.D. dissertation: University of Cambridge, 2004).

[3] See John Marenbon "Carolingian Thought," in R. McKitterick (ed.) *Carolingian Culture: Emulation and Innovation* (Cambridge: Cambridge University Press, 1984), and "John Scottus and Carolingian Theology: from the *De praedestinatione*, its Background and its Critics, to the *Periphyseon*," in M. Gibson and J. Nelson (eds.) *Charles the Bald: Court and Kingdom*, 2nd edn (Aldershot: Variorum, 1990) 303–25.

to the cathedral authorities.[4] By the 1130s, as John of Salisbury's account of his education there shows (*Metalogicon* II.10), the student could choose among a great variety of masters – rather than being constrained to a single one, however illustrious – and the work of each teacher was stimulated by contact and competition with the others. Outstanding thinkers of the 1130s and 40s, such as Peter Abaelard, Alberic of Paris, and Gilbert of Poitiers explicitly or implicitly adapt and criticize the others' logical and metaphysical ideas. In the second half of the century, distinct schools form, each following one of these masters' teachings, and defending them against the attacks of rival schools. Often – as is very strikingly the case with the Porretans (followers of Gilbert) – these schools develop and refine the theories they have inherited.[5] These ways of doing philosophy could not have grown up in the disparate, geographically isolated schools of the previous century.

PLACES FOR PHILOSOPHY: THE INTELLECTUAL SETTINGS

Although various activities were described as "philosophy" in the early Middle Ages, none corresponds directly to what we mean today by doing philosophy. This is true in various ways, as we shall see, but one way in which it manifests itself vividly is in the absence of any distinct intellectual context for the subject: philosophizing happened only because other activities offered the occasion or the stimulation for it. What were these activities? They appeared most prominently in the course of studying the standard curriculum of the seven liberal arts (especially logic), in religious controversy, and in trying to systematize theology.

Philosophy and the seven liberal arts

Late ancient authors, from Augustine onwards, began to formulate their educational scheme in terms of seven liberal (as opposed to merely practical) arts,

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[4] A good account of the factors that made Paris preeminent is given in Richard Southern, *Scholastic Humanism and the Unification of Europe*, vol I: *Foundations* (Oxford: Oxford University Press, 1995) pp. 163–233. Southern's disparagement of Chartres as an intellectual center is controversial, but probably broadly correct: see N. M. Häring, "Chartres and Paris Revisited," in J. R. O'Donnell (ed.) *Essays in Honour of Anton Charles Pegis* (Toronto: Pontifical Institute of Medieval Studies, 1974) 268–329 for a pro-Chartrian view, and Thomas Ricklin, "Chartres (École de)," in Gauvard *et al.* (eds.) *Dictionnaire du moyen âge* (Paris: Quadrige/Presses Universitaires de France, 2002) 269–71, for an intelligent, balanced assessment. For the beginnings of the importance of Paris, shortly after 1100, see Irène Rosier-Catach (ed.) *Les Glosulae super Priscianum, Guillaume de Champeaux, Abelard: Arts du langage et théologie aux confins des XIe/XIIe siècles* (Turnhout: Brepols, forthcoming).

[5] See the special issue on nominalism of *Vivarium* 30 (1992), ed. W. Courtenay, especially Sten Ebbesen, "What Must One Have an Opinion About," 62–79, and Yukio Iwakuma and Sten Ebbesen, "Logico-Theological Schools from the Second Half of the 12th Century: A List of Sources," 173–210.

which came to be divided into the linguistic arts of the trivium (grammar, logic, and rhetoric) and the mathematical arts of the quadrivium (arithmetic, geometry, astronomy, and music). For example, Martianus Capella's *On the Marriage of Philology and Mercury*, a fifth-century encyclopedic work that was much studied from the ninth to the twelfth century, dedicates a book to each art. Logic above all – but also grammar and, to an extent, rhetoric – offered early medieval writers occasions to explore philosophical questions.[6]

The earliest medieval logical curriculum, studied from the time of Alcuin's *On Dialectic* (late 780s?) until the late tenth century, was based mainly on the accounts of logic in the encyclopedias of Cassiodorus, Isidore of Seville and Martianus Capella, together with Apuleius's *Periermenias* (an account of basic Aristotelian syllogistic) and the *Ten Categories*, a paraphrase-commentary of Aristotle's *Categories*. The last of these was written in the circle of Themistius, but attributed in the Middle Ages to Augustine. This misattribution points to one of the reasons why logic had such a large place in early medieval education: it was seen as indispensable in theological discussion, both because it provided a way of posing fundamental questions about God and his relation to his creation, and because it furnished a formidable argumentative weapon in controversy. In this first phase of medieval logic, its study was philosophical not so much because it involved a grasp of concepts and problems about argumentation – that would come a little later – but because its theological use provoked wider questions. For example, the question of whether God fits into any of the ten Aristotelian categories provided thinkers from Alcuin to John Scottus Eriugena and his followers the chance to reflect both on some basic metaphysics and on the adequacy of language to its subject matter.[7]

By the eleventh century, the logical curriculum was organized around Boethius's translations of Aristotle's *Categories* and Porphyry's *Isagoge* (an introduction to the *Categories*), studied with the help of Boethius's commentaries, along with Boethius's textbooks on categorical and hypothetical syllogisms and topical argument. Unlike the earlier curriculum, these works could, and did, give medieval readers a firm grasp of many areas of ancient logic. For instance, starting from an analysis of hypothetical syllogisms (those in which one of the premises is a compound proposition), Abaelard's *Dialectica* (probably *ca.* 1107–15) is able to explore in unparalleled depth the relationship between truth in

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[6] See Günter Glauche, *Schullektüre im Mittelalter: Entstehung und Wandlungen des Lektürekanons bis 1200 nach den Quellen dargestellt* (Munich: Arbeo-Gesellschaft, 1970); William Stahl and Richard Johnson, *Martianus Capella and the Seven Liberal Arts* (New York: Columbia University Press, 1971); Ilsetraut Hadot, *Arts libéraux et philosophie dans la pensée antique* (Paris: Études Augustiniennes, 1984).

[7] See John Marenbon, *From the Circle of Alcuin to the School of Auxerre* (Cambridge: Cambridge University Press, 1981), and "The Latin Tradition of Logic to 1100," in D. M. Gabbay and J. Woods (eds.) *Handbook to the History of Logic*, vol. II (Amsterdam: North-Holland, 2008), 1–63, 65–81.

conditionals and validity in argument (see Chapter 10).[8] There are enough unresolved metaphysical problems in the *Categories* and the *Isagoge* (a brilliantly unsuccessful attempt to defuse these problems) to make a logic curriculum based on these works a path to questions in metaphysics and the philosophy of mind. Similarly, the *De interpretatione*, as presented by Boethius's long commentary (heavily based on Porphyry's lost work), opens up the philosophy of language.[9]

In addition to logic, grammar also provided opportunities for philosophizing, in two distinct ways (see Chapter 15). First, the textbook for the advanced study of grammar was the *Institutions*, written by Priscian in the early sixth century. Priscian was influenced by Stoic linguistic theory and, though most of the work is about the particularities of Latin, some passages raise issues in semantics that were taken up by medieval readers, especially by eleventh- and twelfth-century readers familiar with the Aristotelian semantics of *De interpretatione*. Second, ancient Latin texts were studied as part of grammar. They included not only poetry (Virgil, Ovid, Lucan), but also a quartet of philosophical works: Plato's *Timaeus* in Calcidius's partial translation, along with his commentary; Martianus Capella's *On the Marriage of Philology and Mercury*, which prefaces its encyclopedic treatment of the liberal arts with an allegorical account of an ascent by learning to heaven; Macrobius's commentary on *The Dream of Scipio* (the last book of Cicero's *Republic*), which combines astronomy, political philosophy, and an account of some Platonic doctrines; and Boethius's *Consolation of Philosophy* – the work of a Christian written, however, without recourse to revelation and as a philosophical argument, drawing on Stoic ethics and Neoplatonic epistemology and metaphysics. These works all had to be glossed and commented on, forcing their readers to grapple both with the philosophical issues they raised and with the often difficult negotiation between the positions such authorities proposed, on the one hand, and the doctrines of Christianity on the other.[10]

As for rhetoric, although it did not yet link up with political philosophy as it would in the later Middle Ages, it did stimulate the study of ethics. For, at the end of the most popular rhetorical textbook – Cicero's *De*

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[8] See Christopher J. Martin, "Embarrassing Arguments and Surprising Conclusions in the Development of Theories of the Conditional in the Twelfth Century," in J. Jolivet and A. de Libera (eds.) *Gilbert de Poitiers et ses contemporains* (Naples: Bibliopolis, 1987) 377–401; "Logic," in J. Brower and K. Guilfoy (eds.) *The Cambridge Companion to Abelard* (Cambridge: Cambridge University Press, 2004) 158–99; Ian Wilks, "Peter Abelard and his Contemporaries," in Gabbay and Woods, *Handbook to the History of Logic*, II: 83–105.

[9] See Margaret Cameron, "Boethius on Utterances, Understanding, and Reality" in J. Marenbon (ed.) *The Cambridge Companion to Boethius* (Cambridge: Cambridge University Press, 2009) 85–104.

[10] See Édouard Jeauneau, "L'héritage de la philosophie antique durant le haut Moyen Âge," *Settimane di studio del Centro italiano di studi sull'alto medioevo* 22 (1975) 17–54; see also William of Conches's *Glosae super Boetium*, one of the most important twelfth-century commentaries on Boethius's *Consolation*, with an extensive discussion of methods of interpretation in Lodi Nauta's introduction.

inventione – there is a brief discussion of the virtues and their divisions. This discussion proved far more influential than its size would suggest. Alcuin's dialogue, the earliest medieval rhetorical textbook, is called *On Rhetoric and the Virtues*; Abaelard would later refer to *De inventione* as "the treatise on ethics" and twist Cicero's unpondered classifications into something thoughtful and thought-provoking.[11]

Philosophy and religious controversy

By the eighth century, Christian doctrine in the Latin church was rich in positions that were formulated in highly philosophical vocabulary, often borrowed from the ancient schools, and yet at the same time either underdetermined or implicitly contradictory. Not surprisingly, their interpretation led to controversies, and these controversies occasioned philosophical debate. Two striking examples are the dispute over predestination in the ninth century, and that over the Eucharist in the eleventh.

The terms for the medieval debate on predestination were set by Augustine. He had tried throughout his life to reconcile two conflicting ideas: first, that humans must have freedom of choice in order to be moral agents; second, that God owes nothing to humans because, after the Fall, all humans stand to be damned unless God rescues them, something he would do not because they deserve it but because he graciously so chooses. Augustine's later work stresses the second of these requirements, and in the mid-ninth century Gottschalk of Orbais brought out its full force by insisting that there is a dual predestination, either to salvation or to damnation. Worried by the social implications of a teaching that seemed to offer no scope to the individual's efforts in gaining salvation, some of the leading Carolingian churchmen reacted by claiming that there is no predestination to hell but only to heaven – a position only superficially less deterministic than Gottschalk's, since anyone *not* predestined to heaven would in fact be damned. John Scottus, asked to intervene, was led to a bold analysis of free will and law in his *De praedestinatione*. His position, radical in its insistence against the grain of Augustinian Christianity on real human

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[11] See Karin Fredborg, "The Commentaries on Cicero's *De Inventione* and *Rhetorica ad Herennium* by William of Champeaux," *Cahiers de l'Institut du Moyen Age Grec et Latin* 17 (1976) 1–39; "Abelard on Rhetoric," in C. J. Mews *et al.* (eds.) *Rhetoric and Renewal in the Latin West 1100–1540: Essays in Honour of John O. Ward* (Leiden; Brill, 2003) 55–80; V. Cox and J. Ward (eds.) *The Rhetoric of Cicero in its Medieval and Early Renaissance Commentary Tradition* (Leiden: Brill 2006). On Abaelard's use of the *De inventione*, see Gabriella d'Anna, "Abelardo e Cicerone," *Studi Medievali* (3a series) 10 (1969) 333–419, and John Marenbon, *The Philosophy of Peter Abelard* (Cambridge: Cambridge University Press, 1997) pp. 283–7.

freedom and responsibility, in its turn provoked some intelligent philosophical discussion from his opponents (see Chapter 29).[12]

The problem of the Eucharist came into prominence two centuries later, when Berengar of Tours attacked the orthodox views of Lanfranc, according to which the bread and wine in the Eucharist is really transformed into the body and blood of Christ. According to Berengar, this doctrine is doomed to incoherence given an Aristotelian analysis of substance and accident. In Berengar's view, accidents are individuated by the substances in which they inhere, so that the individual accidental properties of the bread and wine could not inhere in some other substance. Through the course of this debate, Berengar and his contemporaries were forced to interpret and discuss the metaphysics implicit in the *Categories*, choosing one reading among the various possible ones.[13]

Philosophy and systematic theology

From the late eleventh century onwards, thinkers tried to systematize the teaching of Christian doctrine. One method looked to scriptural exegesis and treatises of canon law and sought to draw together the material they provided so as to offer a coherent, orderly whole, in which points of contention – often suggested originally by apparently contradictory texts from the Bible or the Church Fathers – could be not merely presented, but argued through and resolved. Originated by Anselm of Laon and William of Champeaux at the turn of the twelfth century, this method was developed by Abaelard and Hugh of St. Victor, in their different ways, from both of whom Peter Lombard borrowed in his *Sentences* (*ca.* 1155). Although Peter Lombard is a far less philosophically minded author than the thirteenth- and fourteenth-century theologians who used the *Sentences* as their textbook, his work is full of philosophical problems, some of which are more fully treated both by Abaelard and by some of the later twelfth-century theologians: for instance, the problem of whether divine prescience is compatible with human freedom, or whether God could act differently from the way in which he does in fact act.[14]

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[12] See Marenbon, "John Scottus and Carolingian Theology," and the bibliography there.

[13] See Toivo Holopainen, *Dialectic and Theology in the Eleventh Century* (Leiden: Brill, 1996) pp. 44–118; John Marenbon, "Les Catégories au début du moyen âge," in O. Bruun and L. Corti (eds.) *Les* Catégories *et leur histoire* (Paris: Vrin, 2005) pp. 232–7; see also Irène Rosier-Catach, *La parole efficace: signe, rituel, sacré* (Paris: Seuil, 2004) pp. 355–63.

[14] Cf. A. M. Landgraf, *Introduction à l'histoire de la littérature théologique de la scolastique naissante*, tr. A. M. Landry and L.-B. Geiger (Montréal: Institut d'études médiévales, 1973); Philipp Rosemann, *Peter Lombard* (Oxford: Oxford University Press, 2004). For texts, see Anselm of Laon and William of Champeaux in Odon Lottin, *Psychologie et morale aux XIIe et XIII siècles* (Gembloux: Duculot,

The other method was invented by Gilbert of Poitiers on the basis of Boethius's short theological treatises, which themselves use Aristotelian logic and physics to refute heretical doctrines and had been an intellectual influence since the ninth century. Gilbert's systematization involves a theory of the different roles of different disciplines and their principles in gaining different sorts of knowledge; on this basis, he suggests a method of coming to an understanding of some of the most mysterious Christian doctrines, such as God's triunity. Gilbert was also led to elaborate one of the most ambitious metaphysical schemes of the period, partly in order to show the limits of its application to God. His followers explored his line of thought critically and with even more sophistication.[15]

WAYS OF PHILOSOPHIZING: THE WRITTEN FORMS

The *quaestiones* characteristic of thirteenth- and fourteenth-century scholastic thought are not found in the early Middle Ages. One does, however, find a form of writing that looks nearly as strange to our modern eyes: the method of assembling or paraphrasing existing writings by authorities of the past. This was Alcuin's regular method; few of his words, and fewer of his ideas, are his own. But even the philosopher of the period most famed for his originality, Peter Abaelard, produced a work, *Sic et non* ("Yes and No"), that apart from its preface consists of quotations, mostly from the Church Fathers. As we shall see, however, this method should not be thought unphilosophical.

The practice of commentary is central to how philosophy was taught and ideas were developed from mid-antiquity until the seventeenth century. In the ninth, tenth, and eleventh centuries, the schoolmasters' work of commentary tended to be preserved as glosses in the margins and between the lines of manuscripts. These glosses often belonged to anonymous "Gloss Traditions" – that is to say, a slightly different selection of the same glosses (with small variations) appears in a number of manuscripts. Sometimes there is more than one Gloss Tradition to a particular work, and sometimes the traditions are intermixed in a single manuscript; many manuscripts contain a few glosses not found elsewhere. In the twelfth century, Gloss Traditions tend to be replaced by continuous commentaries: Abaelard commented on the logic of Aristotle, Porphyry, and Boethius; William of Conches commented on Priscian, Macrobius, Boethius's *Consolation*, and the *Timaeus*; Gilbert of Poitiers commented on Boethius's theological treatises. These commentaries, written by known, single writers,

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1948–60) vol. V; Hugh of St. Victor's *De sacramentis*, his theological *summa*; and Peter Abaelard, *Opera theologica* vol. III.

[15] Lauge Nielsen, *Theology and Philosophy in the Twelfth Century* (Leiden: Brill, 1982).

are the exception, however, and even they may be less unified texts than they seem. Most early medieval Latin commentaries – including a good hundred on logical texts – are anonymous; they are sometimes made up of different layers of composition, probably by different teachers; in some cases, they are students' transcripts of what they heard, perhaps at the lectures of a number of different masters.[16]

Not many early medieval philosophical works are written simply as independent treatises. There are, indeed, the treatises on logic (*De dialectica*) by Garland of Besançon (*ca.* 1100/20?), Abaelard, and William of Lucca (late twelfth century), as well as William of Conches's *Philosophia mundi* (*ca.* 1125), a survey mainly of natural science, and some of Anselm's works, such as his work on the "concord" of free will and divine prescience. Occasional treatises, such as those written for a controversy (John Scottus's treatise *De praedestinatione*, for instance, and Lanfranc's and Berengar's treatises on the Eucharist) are more common.

The dialogue was a widely used form for setting out theological and philosophical ideas. Alcuin, following earlier medieval didactic traditions, used a pupil–teacher dialogue for his treatises on the arts of the trivium. Anselm liked to write in a dialogue form heavily influenced by Augustine's early philosophical dialogues. Eriugena cast his vast *Periphyseon* (all five books of it) in the form of a dialogue between a teacher and pupil, but he used this format creatively – sometimes allowing the pupil to misunderstand or argue badly, and to be corrected by the teacher, sometimes, by contrast, putting into the pupil's mouth bold ideas that he perhaps wanted to suggest only tentatively. In Anselm's *De grammatico* and Adelard of Bath's *Natural Questions*, the pupils are portrayed as querulous or even aggressive.[17] More ambitious literary forms were also used, especially in the twelfth century. Abaelard's *Collationes* is a dream-vision dialogue between a Jew (whose way of life in twelfth-century Christendom is vividly sketched), a Philosopher – who is like an ancient Greek or Roman thinker brought back to life – and a Christian. In his *Cosmographia*, Bernard Silvestris retells in prose and verse the story of how the world and humans were created, drawing on and implicitly commenting on the *Timaeus*. In *The Plaint of Nature* (1160/70), Alan of Lille copies the form of Boethius's *Consolation*, and by echoing and contrasting with this model, enriches the meaning of his own discourse.

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[16] Editing and study of this material should thus not be undertaken, as sometimes happens, according to the scholarly model of a literary text as a finished work by one author. For a survey of the genres of glosses and commentaries in the logical tradition, see the introduction to John Marenbon, "Medieval Latin Commentaries and Glosses on Aristotelian Logical Texts, Before c. 1150 A.D.," in C. Burnett (ed.) *Glosses and Commentaries on Aristotelian Logical Texts: The Syriac, Arabic and Medieval Latin Traditions* (London: Warburg Institute, 1993) 77–127.

[17] See Klaus Jacobi, *Gespräche lesen: philosophische Dialoge im Mittelalter* (Tübingen: Narr, 1999).

WAYS OF PHILOSOPHIZING: FORMS OF ARGUMENT

Within these various different types of writing, philosophical argument was conducted in a number of different ways – affected, though not determined, by the written form (and, in some cases, the type of oral teaching that lay behind it) and by the broader setting, physical and intellectual. Here are six types of argument that were used in the early Middle Ages: all of them are philosophical in a broad and useful sense of the word, although the first two types are especially close to the ways in which analytical philosophers are now taught to argue.

1. Conceptual analysis. The conceptual adequacy of the stages of an argument are defended or attacked. In his *Proslogion* ch. 2 argument for the existence of God, for instance, Anselm claims that the Fool who denies the existence of God will mentally grasp the meaning of 'that-than-which-nothing-greater-can-be-thought.' The first critic of his argument, Gaunilo, rejects this claim, however (sec. 4). One can grasp the meaning of an expression by having in mind the thing to which it refers, but whether that-than-which-nothing-greater-can-be-thought exists is the question at issue. Alternatively, one can understand an expression that refers to something that might not or does not exist if one is familiar with the genus or species of the thing (thus, I understand 'the man sitting in my room hates Anselm,' although no one is in fact sitting in my room), but that-than-which-nothing-greater-can-be-thought belongs to no genus or species we know. The term 'that-than-which-nothing-greater-can-be-thought' therefore generates almost nothing in the way of a meaning. Anselm replies (sec. 8) that that-than-which-nothing-greater-can-be-thought must have every attribute that it is better to have than not to have; by thinking through these attributes we can give the term a meaning.[18]

2. Argument through disambiguation. An apparent problem is resolved by pointing out hidden ambiguities in the way it is stated. In his *Dialectica*, for instance, Abaelard considers an argument designed to show that the contingency of future events is incompatible with the claim that, being omniscient, God foresees the future. The argument claims that, since:

1. If (a) something happens otherwise than God has foreseen, then (b) God is mistaken, and there is a logical principle:

P. If the antecedent of a conditional is possible, so is the consequent; it follows that:

2. If (a) it is possible that something happens otherwise than God has foreseen, then (b) it is possible that God is mistaken.

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[18] For a discussion of these passages, see John Marenbon, "Anselm Rewrites his Argument: *Proslogion* 2 and the *Response* to Gaunilo," in J. Hamesse and O. Weijers (eds.) *Écriture et réécriture des textes philosophiques médiévaux* (Turnhout: Brepols, 2006) 347–65.

According to Abaelard, the antecedent (2a) consists of a subject ('that something happens'), a predicate ('it is possible'), and a qualification ('otherwise than God has foreseen'). His way of showing that future contingent events are not precluded by this argument depends on showing that (2a) is ambiguous: it has different meanings depending on how it is analyzed:

understood one way, [2] is false (that is, when its antecedent is true), and in another way, it is true (when the antecedent itself is false). The antecedent is true when understood thus: when 'otherwise than God has foreseen' is the qualification of the predicate, i.e. of 'possible,' in this way – 'for the thing to happen is possible-other-than-God-has-foreseen,' in that it has the power of happening otherwise. But if the qualification is placed on the subject, which is 'happen,' in such way as for it to say 'for-a-thing-to-happen-otherwise-than-God-has-foreseen (all of this) is possible' the antecedent is false and cannot be proven. For what this proposition says is altogether impossible: 'for-a-thing-to-happen-otherwise-than-God-has-foreseen,' which as a whole is the subject, and 'possible' as the predicate without qualification, just as the following is impossible: 'a thing happens otherwise than it happens." (*Dialectica*, ed. de Rijk, p. 218)

But, Abaelard continues, what Principle P establishes is that a true non-modal conditional remains true if 'is possible' is predicated of the whole antecedent and of the whole consequent. On the second reading of (2) – 'If for-a-thing-to-happen-otherwise-than-God-has-foreseen is possible, then it is possible that God is mistaken' – Principle P is indeed applied to (1), because the whole antecedent as well as the whole consequent is said to be possible – and so the whole conditional is true. But since the antecedent (2a) on that second reading is false, the truth of the consequent (2b) is not demonstrated. In contrast, the first reading – 'If for the thing to happen is possible-other-than-God-has-foreseen, then it is possible that God is mistaken' – has a true antecedent, but the conditional itself is false.[19]

   3. Argument through juxtaposition. When texts from the past are selected and juxtaposed in certain ways, the choice and arrangement can serve to make a philosophical point. This was Alcuin's method, and Abaelard's in *Sic et non*. Abbo of Fleury, an underrated logician of the late tenth century, also worked this way, combining material from Boethius's newly discovered *De hypotheticis syllogismis* with an account of the Stoic modes of the syllogism, which – by contrast with Boethius's presentation – are genuinely propositional logic.[20]

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[19] For a detailed discussion of this argument and its influence, see John Marenbon, *Le temps, la prescience et les futurs contingents de Boèce à Thomas d'Aquin* (Paris: Vrin, 2005). Note that the existing editions of the *Dialectica* emend this passage so as to destroy its sense.

[20] This point is brought out in Franz Schupp's notes and introduction to Abbo's *De syllogismis hypotheticis.*

4. Argument through interpretation. In the *Timaeus*, Plato talks of a World Soul. In his commentaries, William of Conches at first accepts the identification of this World Soul with the Holy Spirit of Christian doctrine; later, he distances himself from the idea and eventually gives it up.[21] A number of philosophical and some pragmatic non-philosophical issues (such as ecclesiastical criticism and fear of punishment) are bound up with both this interpretation and its abandonment. If Plato grasped Christian truths, how? If not, how should his thought be regarded? On what principles do we select from what ancient science teaches? What is the place for non-literal modes of expression in philosophical writing, and what are the criteria for interpreting them? Argument through interpretation goes on in logical commentaries as well. Apparent contradictions between Boethius and Aristotle, for instance, lead medieval readers to posit new theories that are found in neither.

5. Imaginative argument. Bernard Silvestris's *Cosmographia* is a retelling of the Platonic creation story; his *Mathematicus* is a story that takes up elements of the Oedipus legend and its questioning about fatalism. Abaelard muses, in prose and poetry, about Jephthah, the Old Testament king who found that a vow he had taken bound him to sacrifice his daughter.[22] Abaelard uses the story to explore moral dilemmas more fully and openly than in his more theoretical ethical writings.

6. Opening a conceptual space. In his *Periphyseon* (ed. Jeauneau, II: 597AB), Eriugena argues that, contrary to the accepted view, the Aristotelian categories do not include everything, because "no one of those who correctly philosophize doubts that possible things and impossible things should be counted in the number of things." Although Eriugena refers to Aristotle's *De interpretatione*, what he is saying is strikingly un-Aristotelian, because for Aristotle – who accepts the Principle of Plenitude (that all genuine possibilities are realized at some point in time) – merely possible things have no ontological standing. In a way that he probably did not notice fully himself, Eriugena thus opens the conceptual space in which would develop tentatively in the eleventh and twelfth centuries, and then explicitly with John Duns Scotus at the end of the thirteenth, a non-Aristotelian theory of modality that leads to Leibniz's possible worlds.[23] It is the setting – not merely theological, but one strongly influenced by Greek negative theology – that explains how he was able to do so.

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[21] The texts are well set out in the text and apparatus of William's *Glosae super Platonem*, ed. Jeauneau, p. 124.

[22] See Marenbon, *Philosophy of Peter Abelard*, pp. 319–20 (with references to the various texts).

[23] For the background to medieval modal theory, see Simo Knuuttila, *Modalities in Medieval Philosophy* (London: Routledge, 1993).

METHODOLOGY AND EARLY MEDIEVAL PHILOSOPHY:
TWO EXPLANATIONS AND A CHALLENGE

The phrase 'early medieval philosophy' calls for some explanation, which it is easier to give now than it would have been at the start. How can we distinguish philosophy from non-philosophy during this time? Also, granted that 'early medieval' is taken to stand for *ca.* 780–1200, what justification is there for treating it as a separate period in Latin philosophy, distinct from a later 'scholastic' period?

Although early medieval writers used the term 'philosophy' in various ways, what they most often included under it is either too wide (all theoretical learning) or too narrow (non-Christian learning and speculation) to yield what a reader of a history of philosophy today might reasonably expect. As the section above on the intellectual setting of philosophy indicates, we must thus search out philosophizing in various different educational and ecclesiastical contexts. We can recognize it as such because the questions raised and the methods used to explore them have a broad similarity with those used today, although there is no clear boundary line and it would be wrong, in thinking about the methods used by philosophers today, to restrict ourselves to those used in analytical philosophy departments.

The reason for regarding the early medieval period as a unit is that, before and after it, the range of sources (as outlined above) is very different; both the institutional and intellectual places for philosophizing become, in the main, radically simplified, and the universities and the arts and theology courses within them become standardized (see Chapter 4). The forms of philosophical writing change, mainly to reflect university teaching, and for the most part the methods of philosophizing become restricted to the first three classified above.

By arguing in this way for a periodization within medieval philosophy, I am suggesting the need for a way of envisaging the material that complements the arrangement by topics, in which the contours of different periods in different geographical and cultural settings are allowed to play in counterpoint to the analysis of arguments. This and the other introductory chapters may seem to be an historical aperitif, before the serious philosophical banquet. I think of my piece, however, rather as a preparatory shot of something stronger, to steel the reader's resolve to read what follows both with *and* against the analytical grain, along with some hints, for one period and cultural setting, of how to start doing so.

BYZANTIUM

KATERINA IERODIAKONOU

PHILOSOPHY IN BYZANTIUM

The Greek-speaking scholars of Byzantium – the eastern part of the Roman Empire, which was not devastated in the fifth century by barbarian invasions – have often been praised for their diligence in copying a great number of ancient philosophical texts, thus making an invaluable contribution towards the preservation and transmission of these texts for the generations to come. It is more often than not overlooked, however, that in Byzantium the works of ancient philosophers were arduously copied in order to be closely studied, commented on, and otherwise used for educational purposes. There is ample evidence that, at least from the ninth century to the fall of Constantinople in 1453, the Byzantines seriously engaged in a fervent dialogue with the different ancient philosophical traditions. This dialogue resulted in the composition of many philosophical works that belong to various genres of philosophical writing, including paraphrases, extended commentaries, commentaries in question-and-answer form, small handbooks, treatises on specific topics (sometimes in dialogue form), and letters and orations with philosophical content.[1]

Though philosophy in Byzantium was undoubtedly influenced by ancient Greek philosophical doctrines – which, after all, provided the Byzantines with

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[1] For a general survey of the philosophical production in Byzantium, though somewhat outdated, see Basil Tatakis, *La philosophie Byzantine* (Paris: Presses Universitaires de France, 1949), tr. N. Moutafakis, *Byzantine Philosophy* (Indianapolis: Hackett, 2003). See also Klaus Oehler, *Antike Philosophie und byzantinisches Mittelalter* (Munich: Beck, 1969); Paul Lemerle, *Le premier humanisme byzantin* (Paris: Presses Universitaires de France, 1971); Gerhard Podskalsky, *Theologie und Philosophie in Byzanz* (Munich: Beck, 1977); Herbert Hunger, "Philosophie," in *Die hochsprachliche profane Literatur den Byzantiner* (Munich: Beck, 1978) I: 3–62; Alain de Libera, *La philosophie médiévale* (Paris: Presses Universitaires de France, 1993) pp. 9–51; Michel Cacouros, "De la pensée grecque à la pensée Byzantine," in J.-F. Mattéi (ed.) *Encyclopédie philosophique universelle* (Paris: Presses Universitaires de France, 1998) IV: 1362–84. For a detailed bibliography of works on Byzantine philosophy, see Linos Benakis, "Bibliographie internationale sur la philosophie Byzantine (1949–1990)," in *Bibliographie Byzantine publié à l'occasion du XVIIIe Congrès Internationale d'Études Byzantines* (Athens: Comité hellénique des études byzantines, 1991) 319–77.

both a well-articulated theoretical framework and a sophisticated philosophical language – its character could not but also be influenced by the Christian faith in which the Byzantine thinkers were deeply immersed. For they read and criticized the ancient philosophical texts in the light of their Christian beliefs and with the purpose of either rejecting pagan views or trying to incorporate them into their Christian outlook. Indeed, the connection between Byzantine philosophical works and theology is admittedly so strong that in recent years it has constituted the basis for seriously questioning the autonomy of Byzantine philosophy.[2] Even if the Byzantine thinkers often were concerned with problems that arose in the context of a Christian theological tradition, however, and even if their theological preoccupations were sometimes at the forefront of their philosophical writings, there are still abundant cases in which the Byzantines discussed genuine philosophical questions that intrigued them for their own sake – that is, questions that could or would be of interest to every philosopher, irrespective of her or his religious dogma.

In addition, some Byzantine philosophers, notably John Italos in the eleventh century, were not in favor of the view that philosophy should be treated as the handmaiden of theology. Italos rather followed the ancient philosophers in thinking that it is theology that constitutes part of philosophy, since philosophy is supposed to culminate in the attempt to understand the first principle of everything. In the same spirit, many Byzantine philosophers repeatedly advocated the adoption of a rational approach to central theological issues, even issues that concerned some of the most fundamental Christian beliefs, in opposition to those who proclaimed that Christians should rely merely on God's grace and divine revelation. From the ninth century on, Photios, Michael Psellos, John Italos, Eustratios of Nicaea, and Barlaam the Calabrian, to name but a few, strongly supported the systematic use of logic in the defense as well as in the demonstration of Christian dogmas against pagans and heretics. Others, however, including Nikephoros Gregoras and Gregory Palamas, were adamant in their claim that logical studies are useless for acquiring knowledge of God and his attributes.

The philosophical topics that the Byzantines raised and discussed in their writings vary tremendously and cover virtually all areas of philosophy.[3] They

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[2] See Linos Benakis, "Die theoretische und praktische Autonomie der Philosophie als Fachdisziplin in Byzanz," in M. Asztalos *et al.* (eds.) *Knowledge and the Sciences in Medieval Philosophy* (Helsinki: Yliopistopaino, 1990) I: 223–7.

[3] For recent volumes of collected papers in which different topics of Byzantine philosophy are systematically discussed, see Katerina Ierodiakonou (ed.) *Byzantine Philosophy and its Ancient Sources* (Oxford: Oxford University Press, 2002); Michel Cacouros and Marie-Hélène Congourdeau, *Philosophie et sciences à Byzance de 1204 à 1453* (Leuven: Peeters, 2006).

commented on every treatise of Aristotle's Organon; they wrote logical text-
books in which they summarized the main elements not only of Aristotelian
but also of Stoic logic; they dealt with specific logical issues such as whether we
should regard the two Basils (Basil the Elder and Basil the Great) as homonyms
or synonyms, and whether logic should be treated as an instrument or a part of
philosophy.[4] They were intrigued by all subjects in natural philosophy, and
wrote cosmological and astronomical treatises on the origin of the world
and the cosmic order.[5] They were interested in the relation between the soul
and the body, in the problem of evil, and in human free will. They commented
on Aristotle's ethical writings and repeatedly discussed the necessary require-
ments for a good life.[6] Moreover, their writings are full of remarks on questions
concerning epistemology and the skeptical challenge to knowledge, as well as
on aesthetics and the interpretation of holy icons, and political philosophy and
the possibility of a just state.[7]

   In discussing these philosophical problems, the Byzantine thinkers exhibit
different degrees of originality; sometimes they diverge considerably from the
ancient philosophers with whom they disagree, sometimes they add a new
argument to support an already established theory, and sometimes they simply
try to appropriate an ancient view by introducing a novel example. It should be
underlined, though, that originality was not what they aspired to; in this, they
followed the commentators of late antiquity. On the other hand, the eclecti-
cism that characterizes Byzantine philosophical works neither reduces them to
mere compilations of ancient doctrines nor excludes the possibility of indepen-
dent thinking, especially since there was the need to reconcile the Christian
viewpoint with the ancient philosophical traditions. On such occasions, the
Byzantines' aim surely was to present a Christian understanding of the world;
if this understanding could be helped by the ancients' knowledge, they were

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[4] See Michel Cacouros, "Recherches sur le commentaire inédit de Théodore Prodrome aux *Analy-
tiques postérieurs*, livre II d'Aristote," *Atti della Accademia Pontaniana* n.s. 38 (1990) 313–38; Katerina
Ierodiakonou, "The Byzantine Reception of Aristotle's *Categories*," *Synthesis Philosophica* 39 (2005)
7–31.

[5] Cf. Börje Bydén, *Theodore Metochites' Stoicheiosis astronomike and the Study of Natural Philosophy and
Mathematics in Early Palaiologan Byzantium* (Gothenburg: Acta Universitatis Gothoburgensis, 2003).

[6] See H. P. F. Mercken, "The Greek Commentators on Aristotle's *Ethics*," in R. Sorabji (ed.)
Aristotle Transformed: The Ancient Commentaries and their Influence (London: Duckworth, 1990) 407–
43; Katerina Ierodiakonou, "Byzantine Commentators on the Epistemic Status of Ethics," in
P. Adamson *et al.* (eds.) *Philosophy, Science, and Exegesis in Greek, Arabic, and Latin Commentaries*
(London: Institute of Classical Studies, 2004) 221–38.

[7] See John Demetrakopoulos, "Nicholas Cabasilas' *Quaestio de rationis valore*: An anti-Palamite Defense
of Secular Wisdom," *Byzantina* 19 (1998) 53–93; Karin Hult's edition and translation of Theodore
Metochites's *Semeioseis gnomikai* 1–26 and 71; Charles Barber, "Living Painting, or the Limits of
Pointing? Glancing at Icons with Michael Psellos," in C. Barber and D. Jenkins (eds.) *Reading
Michael Psellos* (Leiden: Brill, 2006) 117–30.

happy to appropriate this knowledge, though sometimes it proved hard to bring together worldviews that otherwise were perceived as opposing each other, as for instance the Aristotelian view of the eternity of the world and the Christian notion of creation (see Chapter 17).

The above general remarks on Byzantine philosophy cover such a long period and so many different thinkers, however, that they can present only a rudimentary and simplified picture of a section in the history of philosophy for which a lot of basic work still needs to be done.[8] Most of the relevant texts are still unpublished or are available in old (and often quite imperfect) editions; only when these texts are finally available in critical editions and carefully studied as serious philosophical works can the different styles, interests, views, and approaches of their authors emerge fully and be properly assessed. In the meantime, it is reasonable to avoid hasty categorizations of the Byzantine thinkers as either Platonists or Aristotelians – a distinction that, after all, became important only towards the end of Byzantium, notably in the fervent fifteenth-century controversy between George Gemistos Plethon and George Scholarios – Gennadios II.[9] The following examination of the Byzantines' views concerning the issue of universals will show that such categorizations can be misleading. At the same time, inquiry into these views will provide a better understanding of how the Byzantines reasoned on such central philosophical issues and of how they diverged from the previous tradition in subtle and interesting ways.

A CASE STUDY: THE THEORY OF UNIVERSALS

As with most issues, it has been widely supposed that Byzantine philosophers followed the Neoplatonic commentators of late antiquity with respect to their position on universals. Linos Benakis, for instance, has suggested that the attempt of the Neoplatonist commentators to reconcile the doctrines of Plato and Aristotle on the issue of universals was closely followed in Byzantium by prominent thinkers like Photios, John Italos, Eustratios of Nicaea, Nikephoros Blemmydes, Nikephoros Choumnos, George Scholarios – Gennadios II, and Bessarion.[10] More specifically, Benakis has suggested that the Byzantine philosophers, as

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[8] See Michele Trizio, "Byzantine Philosophy as a Contemporary Historiographical Project," *Recherches de théologie et philosophie médiévales* 74 (2007) 247–94; Georgi Kapriev, "The Modern Study of Byzantine Philosophy," *Bulletin de philosophie médiévale* 48 (2006) 3–13.

[9] See George Karamanolis, "Plethon and Scholarios on Aristotle," in K. Ierodiakonou (ed.) *Byzantine Philosophy and its Ancient Sources* (Oxford: Oxford University Press, 2002) 253–82.

[10] Linos Benakis, "The Problem of General Concepts in Neoplatonism and Byzantine Thought," in D. J. O'Meara (ed.) *Neoplatonism and Christian Thought* (Albany: State University of New York Press, 1982) esp. pp. 75–86 and 248–9.

a rule, adopted the Neoplatonist commentators' three ways of understanding genera and species terms as referring to:

(i) the universals before the many particulars (*pro tōn pollōn*), which are generally identified with the Platonic Ideas;
(ii) the universals in the particulars (*en tois pollois*), which are supposed to correspond to Aristotle's immanent forms; and
(iii) the universals after the particulars (*epi tois pollois / meta tous pollous*), which are concepts or thoughts.

These three types of universals are the ones first introduced by the fifth-century Neoplatonist Ammonius in his commentary on Porphyry's *Isagoge*; they also are discussed in Elias's and David's commentary on the same work, in Olympiodorus's *Prolegomena*, and in Philoponus's commentary on Aristotle's *Categories*.[11] Indeed, after Porphyry's well-known presentation of the problem of universals at the start of the *Isagoge*, every ancient commentator writing either on this work or on Aristotle's *Categories* tried to give an account of the issue.

Systematic study of the relevant texts does not, however, seem unqualifiedly to support the claim that the Byzantines adhered to the theory propounded by the Neoplatonist commentators on the subject of universals. Rather, it suggests that they diverged from this tradition at certain points – points which, although they at first may seem marginal and obscure, nevertheless reveal a somewhat different approach to the problem of universals. In this way, a close examination of their specific views on universals serves as a useful illustration of general trends in Byzantine philosophy.

It is helpful here to sketch briefly what Ammonius has to say about the three types of universals – so that his account may serve as the standard presentation of the Neoplatonists' position to which the Byzantines' views can be compared. In his commentary on Porphyry's *Isagoge* (*Comm. in Arist. Graeca* IV.3: 41), Ammonius asks us to imagine a ring with a seal that portrays, for instance, Achilles, which we then press into different pieces of wax. Someone who later enters the room and observes the imprints on the different pieces of wax will soon come to realize that they all share common characteristics, and that they are all made by one and the same seal; these common characteristics will subsequently be retained in the observer's mind. According to Ammonius, the seal on the ring represents the universal before the many particulars, the imprint on the different pieces of wax represents the universal in the particulars, and

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[11] Ammonius, *In Porphyr.* (*Comm. in Arist. Graeca* IV.3: 39–42, 68–9, 104–5); Elias, *In Porphyr.* (*Comm. in Arist. Graeca* XVIII.1: 45–8); David, *In Porphyr.* (*Comm. in Arist. Graeca* XVIII.2: 113–16); Olympiodorus, *Prolegomena* (*Comm. in Arist. Graeca* XII.1: 19); Philoponus, *In Categorias* (*Comm. in Arist. Graeca* XIII.1: 9).

the common characteristics as the observer mentally retains them represent the universal after the particulars.

Ammonius proceeds (41–2) to apply this three-fold distinction to the case of the universal human being. The Demiurge, he says, possesses in his mind the idea of the universal human being, which serves as the archetypical paradigm when he creates the different particular humans, just as the seal on the ring serves as the Achilles paradigm for the various wax imprints. This and other ideas possessed by the Demiurge are the universals before the many particulars. They are intelligible substances that constitute the causes of perceptible individuals but are separated from them, and they are identified with the Platonic Ideas in the *Timaeus*. The universal human being is also understood as the form of human being, which is on Ammonius's view both inseparable from and the same in every single human being, just as the imprints of the same seal are both inseparable from and the same in the different pieces of wax. These forms are the universals in the particulars; they are inseparable from perceptible individuals, and they represent the one in the many in the sense of Aristotle's notion of immanent forms. Finally, after observing many different human beings, we can formulate in our mind the concept of the universal human being, derived from the common characteristics shared by all the individual human beings we have observed, just as the common characteristics of the imprints on the different pieces of wax lead us to form a concept of the seal. These are the universals after the particulars, which are thoughts or concepts (*ennoēmatika*: p. 69.1, 4, 6) formed posterior to ("later born than") perception of the individuals (*husterogenē*: pp. 41.20, 42.13, 69.1), and acquired by our mind by the abstraction of their common characteristics.

With Ammonius's understanding of the three types of universals in the background, it is now time to look more closely at what the Byzantine thinkers say on the same topic. Arethas of Caesarea discusses the same three ways of understanding genera and species terms in his *Scholia* (*ca.* 900) on Porphyry's *Isagoge* (secs. 21, 23, 52); they are also hinted at in Photios's ninth-century treatise *Various Questions for Discussion on Amphilochia* (q. 77), as well as in Michael Psellos's eleventh-century paraphrase of Aristotle's *De interpretatione* (ed. 1503, p. 10). It is Psellos's student John Italos, however, who seems to have thought at greatest length about the problem of universals; in particular, he repeatedly discusses the issue in his eleventh-century *Quaestiones quodlibetales*, a collection of ninety-three answers to philosophical questions posed to him by his students.[12]

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[12] For a more detailed account of Italos's views on universals, see Katerina Ierodiakonou, "John Italos on Universals," *Documenti e studi sulla tradizione filosofica medievale* 18 (2007) 231–47.

In Question 5, for instance, Italos talks about the same three types of universals in the same order, but a certain detail of his account proves distinctive. Like Ammonius, Italos regards the universals before the many particulars as the causes and paradigms of perceptible individuals; as such, these universals cannot properly be predicated of the particulars, are separate from them, and exist in God's mind. In this way, Italos both follows Ammonius and perfectly accommodates the requirements of Christian dogma (ed. Joannou, p. 7). He then goes on, however, to present the universals in the particulars and the universals after the particulars in a manner different from Ammonius's account. Italos claims (ibid., p. 8) that both the universals in the particulars and the universals after the particulars differ from the universals before the particulars, because they are later born than the perceptible individuals, can be predicated of them, are inseparable from them, and are acquired by our mind by abstraction. Moreover, it is exactly the way in which they are acquired by our mind through abstraction that makes the universals in the particulars differ from the universals after the particulars: the universals in the particulars, according to Italos, are not predicated of many particulars, but only of the one particular from which they are inseparable. Thus he refers to the universal animal, which he regards as one of the universals in the particulars; when it is predicated of Socrates, it cannot be predicated of anything else, such as Plato. On the other hand, the universals after the particulars are predicated of many particulars, and it is one and the same universal that is predicated both of all the particulars together and of every single one of them separately.

What is the significance of this detail? Does it mean that Italos understands the universals in the particulars as referring to forms that are particular? In other words, does it mean that he interprets Aristotle's immanent forms as particular rather than universal? The pedigree of such an interpretation is not negligible; both Proclus and his teacher Syrianus[13] viewed the immanent forms as particular, without implying in any way that they disagreed with Aristotle on this point. In addition, although Ammonius is not clear on this subject – and, hence, his illustration of the imprint on the different pieces of wax may be taken to suggest that the imprint is one and the same in all cases – there is no reason to believe that he was not here in agreement with these other Neoplatonists. Although this, of course, does not mean that such an interpretation of Aristotle's theory is correct, it is reasonable to think that, by Italos's time, treating Aristotle's immanent forms as particular was an acceptable, if not standard, interpretation.

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[13] See Proclus, *Elements of Theology* (ed. Dodds, pp. 23, 24, 116); Syrianus, *In Metaphys.* (*Comm. in Arist. Graeca* VI.1: 83). For the lack of agreement between Plotinus and Proclus on this topic, see A. C. Lloyd, "Neoplatonic Logic and Aristotelian Logic," *Phronesis* 1 (1955–6) pp. 62–3.

Most importantly, though, the point on which Italos seems to differ from Ammonius's account of the three types of universals is that he considers not only the universals after the particulars but also the universals in the particulars to be acquired by our mind through abstraction. For Italos seems to hold not only that the universals after the particulars are acquired by our mind through abstraction of the common characteristics of perceptible individuals – just as in Ammonius's commentary – but also that the universals in the particulars are acquired by our mind through abstraction of the particular form from the matter involved in each particular. Therefore, for Italos, the universals in the particulars do not represent the one in the many, in the sense of Aristotle's notion of immanent forms, as they do for Ammonius.

But if both the universals after the particulars and the universals in the particulars are acquired by our mind by abstraction, does this mean that, for Italos, they are not beings (*onta*)? Italos addresses this question often, and in great detail, in his *Quaestiones*, objecting strongly to the view that they are not. In Question 58, for instance, he presents a series of arguments in support of Antisthenes's position that genera and species are not beings.[14] All the arguments that support Antisthenes's position are meant to demonstrate that the universals are neither corporeal nor incorporeal – and, hence, that they are not beings, since beings have to be either corporeal or incorporeal. According to one of these arguments, for example, universals are not incorporeal because, if they were, the subjects they are predicates of would be incorporeal too, which is absurd; for instance, if we say that Socrates is a human being, and that the universal human being is incorporeal, then Socrates would be incorporeal too, which is absurd. On the other hand, universals also are not corporeal because, if they were, they would be perishable, since bodies are perishable; but since universals are not perishable, they cannot be corporeal (ed. Joannou, p. 79). Therefore universals are neither corporeal nor incorporeal, and hence they are not beings; rather, they are bare concepts stripped of every reality and existing only in thought.

To rebut this argument, Italos takes the position that universals are incorporeal, and he argues that they can be so without their subjects being incorporeal too; so, for instance, the genus *substance* is incorporeal, although it is predicated also of subjects that are corporeal (ibid., q. 3, p. 4). Italos further offers a whole series of arguments to support his own thesis. Before doing so, however, he stresses, again in Question 3 and in Question 8, that it is important to draw

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[14] Given that Antisthenes's text is no longer extant, the source of these arguments is a puzzle: it could be that Italos copied them from ancient sources still available in his time, or it could be that he himself constructed them for dialectical purposes – that is, in order subsequently to refute them and thus strengthen his own rival position.

what he takes to be Aristotle's distinction between two senses of something's being incorporeal:

 (i) Something can be incorporeal *per se*, truly, and strictly speaking. For instance, the soul, demons, the first cause, and the highest genera are all incorporeal in a strict sense, because they do not need a body for subsisting.
(ii) Something can be incorporeal *per accidens* and by abstraction. For instance, time, space, line, surface, and body are all incorporeal in a weak sense, because they depend on a body for subsisting.

Thus, according to Italos's interpretation of Aristotle, universals are incorporeal in the second, weaker sense: they are not strictly speaking incorporeal but depend on a body for subsisting. This is the sense that Italos himself adopts in his understanding of universals as incorporeal. For both in Question 3 (ibid., p. 4) and in Question 4 (p. 6), Italos explains that universals are incorporeal *per accidens* and not *per se*, because they are incorporeal insofar as they are in the human soul, while at the same time they are corporeal by participation (*kata metheksin*) insofar as they subsist in the particulars. The universals that he has in mind in such contexts are obviously the universals in the particulars and the universals after the particulars.

   If, however, universals are indeed incorporeal beings, then is there a special sense in which they are said to be beings? In Questions 3, 6, 19, and 31, Italos makes use of a distinction that is a commonplace in Platonic texts from Plotinus to Simplicius, but that seems to have even earlier origins: namely, the distinction between something subsisting and something depending on mere thought.[15] According to Italos, things that do not subsist (*anupostata*) but depend on mere thought are not beings. As for things that subsist, he distinguishes between two different kinds of beings (see q. 52, p. 71): those that subsist *per se*, which he calls "subsistences" (*hupostaseis*), and those that subsist in something else (*enupostata*). Subsistences are prior by perception, they are particulars, and they are for the most part bodies; in contrast, beings that subsist in something else are prior by belief and knowledge, they are incorporeal, they are predicates shared by many things, and they are thoughts (*noēmata/dianoēmata*). Italos's terminology here clearly shows the influence of the Christian Fathers – in particular, John of Damascus, whose *Dialectica* draws just this distinction between subsistences, things that subsist in something else, and things that do not subsist (§10/30; §26/43; §28/45; §29/46).

   According to Italos, therefore, both subsistences and beings that subsist in something else are beings, and thus they do not depend on mere thought. Italos

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[15] See Jonathan Barnes's commentary to his translation of Porphyry's *Isagoge*, p. 41.

distinguishes these two kinds of beings both from the standard examples of things that do not subsist, such as goat-stags and centaurs, and from his own examples of many-eyed human beings and four-headed horses; all these are, as he explicitly says (q. 3, p. 4), nothing but fabrications of the human mind and products of our imagination (*phantasmata*). On the other hand, there is also an important difference between subsistences and beings that subsist in something else. Although the first subsist *per se*, the latter are thoughts that subsist in something else. Hence, Italos's position on the three types of universals could be summarized as follows: All three are incorporeal beings, but the universals before the many particulars are subsistences, whereas the universals in the particulars and the universals after the particulars are beings that subsist in something else.

Italos's student Eustratios of Nicaea seems to follow his teacher on this issue both in his commentaries on Aristotle's works and in his theological treatises. For, on Eustratios's view, too, the distinction that matters for these issues is that between the universals that are the paradigms of perceptual individuals and exist in God's mind, and the universals that are later born than the perceptual individuals and that subsist in them.[16]

Neither Italos nor Eustratios, therefore, seems to try to reconcile Plato's and Aristotle's views on universals in the way the Neoplatonists did. Rather, they disagree with both ancient philosophers; they understand the Platonic ideas as God's thoughts, and they conceive of Aristotle's immanent forms both as inseparable from perceptible individuals and as existing in the human mind. Still, although on their view only God and the perceptible individuals exist in the strong sense as subsistences, they also want to stress that all types of universals are beings. They may be beings in a different sense from these subsistences, but they all are beings and not constructions of our mind devoid of reality.[17]

Many more Byzantine philosophers discussed the issue of universals, especially during the fourteenth and fifteenth centuries. To present them as following the Neoplatonist commentators on this subject before closely studying their (some-times unedited) works, it seems, would not do them justice. In addition, Italos's

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[16] For a more detailed study of Eustratios's account of universals, see Katerina Ierodiakonou, "Meta-physics in the Byzantine Tradition: Eustratios of Nicaea on Universals," *Quaestio* 5 (2005) 67–82.

[17] For this reason, I think it is misleading to label them as "nominalists," as A. C. Lloyd does in *The Anatomy of Neoplatonism* (Oxford: Oxford University Press, 1990) pp. 70–5, where he also describes the view as "conceptualist". Benakis, in contrast, has labelled the Neoplatonist and Byzantine account as "conceptual" or "moderate realism" (see note 10). On the alleged nominalism of John Italos and Eustratios of Nicaea, in particular, see Tatakis, *La philosophie Byzantine*, pp. 170–1; Périclès-Pierre Joannou, *Christliche Metaphysik in Byzanz: Die Illuminationslehre des Michael Psellos und Johannes Italos* (Ettal: Buch-Kunstverlag, 1956) pp. 140–6; "Die Definition des Seins bei Eustratios von Nikaia: Die Universalienlehre in der Byzantinischen Theologie im IX Jh.," *Byzantinische Zeitschrift* 47 (1954) 358–68; "Der Nominalismus und die menshliche Psychologie Christi: Das Semeioma gegen Eustratios von Nikaia," *Byzantinische Zeitschrift* 47 (1954) 369–78.

case demonstrates that there may be subtle but important details in Byzantine views that should be taken into consideration when trying to reconstruct their reasoning. This holds, of course, not just for the problem of universals, but for all philosophical issues that occupied them. Such a reconstruction, attentive to crucial detail, should be a prerequisite before one ventures to grasp the theological implications of Byzantine philosophy – or before one undertakes a comparison with the relevant and more thoroughly studied Western texts.

4

THE RISE OF THE UNIVERSITIES

STEVEN P. MARRONE

The culture of the learned elite in the Latin world bordering on the Mediterranean and stretching north into Europe underwent a profound transformation between the eleventh and the thirteenth centuries. Although the traditions of the immediately preceding period were never completely submerged, speculative and literary activity from the twelfth and thirteenth centuries on began to generate a kind of work that speaks to us with a philosophical immediacy that almost nothing from the seventh through eleventh centuries can presume to do. As with any cultural process, the roots of the change reached back deep in time, and in its entirety it extended to all areas of society, economic and political as well as literary and intellectual. It is no accident that the twelfth century has been characterized by Western medievalists as a period of "renaissance," while the origins of "Europe" as we think of it, and as it has exercised power in the modern world, have increasingly been pushed back to that era.

In a guide to medieval philosophy there is no need to engage this historical phenomenon in all its breadth or to speculate very deeply on its causation.[1] Reduced to the scope of medieval intellectual history, our concern is with the emergence of "scholasticism" in its strictest sense – or, as the title of this chapter suggests, with the appearance of a cultural sphere linked to the universities. Despite the fact that either orientation – broadly cultural or narrowly intellectual – must necessarily go seriously astray about the place it assigns the history of Arabic culture or of Byzantine Greek culture (see Chapters 1 and 3), the perspective they both provide gives us an entrée to a cultural shift of dramatic proportions.

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[1] For those with an ear to the sometimes controversial terminology of Max Weber, what we are talking about is the beginning of the "rationalization" of "the West." See Max Weber, *The Theory of Social and Economic Organization*, tr. A. M. Henderson and T. Parsons (New York: Oxford University Press, 1947) pp. 115–18 and 120–3.

SIGNS OF THE NEW INTELLECTUAL CLIMATE

So long as we resist allotting them a special causal status, three cultural events of more than a century long can stand as indicators of the intellectual trans-formation we should have in mind. They are a wave of translations into Latin of writings in Arabic, Greek, and Hebrew, a rapid evolution of educational institutions and the consequent proliferation of new institutional forms, and the construction of a social context, at once economic and political, that fostered what can only be called an incipient "professionalism." Of course all three did play a formative role in the shaping of high medieval scholastic culture, but standard accounts habitually distort their importance by extracting them from the web of social factors at work in so complex a cultural change.[2] Each was in truth as much effect as cause.

Translations into Latin

The rash of translations that began in the twelfth century has usually attracted the primary interest of intellectual historians because it so readily suggests a transfer of philosophical capital, inherited from Greek antiquity by medieval Arabs and Jews, to the Latin cultural coffers of the high Middle Ages. In addition to downplaying the fact that mere translation without interpretation, assimilation, and then development would almost surely have had little historical impact, the focus on translation obscures the important causal lesson that unless a need or desire had already been cultivated by preceding cultural evolution, no translating would have occurred. Still, a look at what was translated and when can serve as a useful barometer of intellectual interest and alteration. (See Appendix B for further details.)

For the study of logic, the medieval Latin tradition up through the early twelfth century was confined to a textual foundation later referred to as the *ars vetus* or *logica vetus* (old logic), consisting of Aristotle's *Categories* and *De interpretatione*, the Greek Neoplatonist Porphyry's *Isagoge* or *Introduction*, commentaries on them all by the sixth-century Roman Boethius, and a few further compendia, most notably again from Boethius's pen. Considerable technical sophistication was possible starting from this base alone, as is evident from Chapter 2's discussion of Anselm, Peter Abaelard, and others from the later eleventh century

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[2] Classic examples are David Knowles, *The Evolution of Medieval Thought* (New York: Vintage Books, 1962) pp. 151–205; Gordon Leff, *Medieval Thought St Augustine to Ockham* (Baltimore, MD: Penguin, 1958) pp. 168–82; and Étienne Gilson, *History of Christian Philosophy in the Middle Ages* (New York: Random House, 1955) pp. 235–50.

on. But beginning in Abaelard's own day a number of new works were either brought back into circulation after centuries of dusty neglect or made available for the first time in Latin, and the field of logic accordingly expanded beyond anything seen even in the ancient world. Aristotle's *Prior Analytics*, *Topics*, and *Sophistical Refutations*, long available in Boethius's translation, began actually to be read in the twelfth century, while sometime prior to 1150 James of Venice translated the remaining piece of Aristotle's Organon, the *Posterior Analytics*. These four, making up the *logica nova* (new logic), took decades to digest, with the first written commentary on the *Posterior Analytics*, by Robert Grosseteste, dating from around 1228. But as the subjects with which they were concerned took central stage, the range of logical speculation dramatically enlarged and its novelty rapidly intensified. Beginning with syllogistic and theory of demonstration, already by the mid-thirteenth century an elaborate modal logic was being fashioned accompanied by investigation into the properties of terms, to be supplemented in the fourteenth century by a whirlwind of activity on questions of invention, logical puzzles about sophisms and insoluble arguments, elaborate inferential exercises such as those called "obligations," and renewed attention to the rules of inference or "consequence" (see Chapters 10–14).[3]

Keeping to Aristotle alone, equally destabilizing advances were made in natural philosophy. Prior to the twelfth century, not a single one of Aristotle's natural works was available in Latin. Again, before 1150 James of Venice translated both the *Physics* and *De anima*, with other versions soon in circulation, followed late in the twelfth and anew in the thirteenth century by translations of *De caelo*, *De generatione et corruptione*, the *Meteorology* and eventually the rest of the *libri naturales*. By the end of the thirteenth century, all of Aristotle's philosophy of nature was at hand, the subjects he treated beginning to evolve into fields of investigation on their own. It is important to remember, however, that Aristotle did not come to Latin readers without introduction. His writings were accompanied by, indeed initially interpreted in light of, a much larger corpus of works in Arabic reaching far beyond the authentic Aristotle. Most important of these initially was the massive *Book of Healing* (*Al-Shifāʾ*) of the eleventh-century Persian Avicenna, the parts of which labeled in Latin as *De anima* and *De generatione* having been translated in the second half of the twelfth century. Although the *Shifāʾ* was not a commentary, its structure paralleled that of the Aristotelian corpus, and so it could be used as a guide to the Philosopher himself. Soon, however, Latin readers had access to proper commentaries, in the form of the equally influential and even more massive works of the twelfth-century Spaniard

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[3] Still the best introduction is Jan Pinborg, *Logik und Semantik im Mittelalter: ein Überblick* (Stuttgart: Frommann-Holzboog, 1972).

Averroes. His commentaries began to be turned into Latin in the early thir-
teenth century, with Michael Scot's translations of the long commentaries on
the *Physics* and *De anima* probably being read in Paris already by 1225.[4]

Even this only scratches the surface. Perhaps of greatest weight for philos-
ophy from a modern perspective was the translation of Aristotle's *Metaphysics*,
partially accomplished already by the late twelfth century and then fully in
several versions in the thirteenth. Here, too, Arabic writings established the
context of interpretation, with Avicenna's *Metaphysics* (again from the *Shifā*)
preparing the way for Aristotle's, and Averroes's *Great Commentary* once more
following and providing a standard gloss. Not far behind were the *Nicomachean
Ethics*, first completely rendered in Latin by Robert Grosseteste in the 1240s,
and the *Politics*, put into Latin by William of Moerbeke in the second half of
the thirteenth century. It can almost be said that these latter two translations
coincided with a virtual reinvention of both ethics and the study of politics in
the Latin Middle Ages, though in either case Arabic thinkers had anticipated the
change by at least two hundred years. Moreover, focusing just on Aristotle and
Aristotelian commentaries scarcely conveys the scale of the influx of new texts,
carrying with them whole new ways of thinking and mountains of unfamiliar
data and ideas. Translations from the Greek Neoplatonic and late Peripatetic
tradition continue throughout the thirteenth century, not to speak of a flood
of original works on philosophy as well as what we would call natural science
from Arabic and Hebrew well into the fourteenth. The enormity of the debt in
the theory of science alone is apparent when we consider that Euclid's *Elements*
and Ptolemy's *Almagest* were first read by Latin thinkers – in translation by way
of Arabic exemplars – only in the twelfth century.[5]

New educational institutions

If the story of translations conveys an idea of the revolution in subject matter
and forms of learning from the eleventh to the thirteenth centuries – practically
the emergence of philosophy in something like the sense we mean today – the
second of the cultural events mentioned above helps us understand how such

[4] On Aristotle translations, consult L. Minio-Paluello, *Opuscula: The Latin Aristotle* (Amsterdam:
Hakkert, 1972); and Bernard G. Dod, "Aristoteles Latinus," in N. Kretzmann *et al.* (eds.) *The
Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982)
45–79. The crucial articles on Avicenna and Averroes are still M.-T. d'Alverny, "Notes sur les
traductions médiévales des œuvres philosophiques d'Avicenne," *Archives d'histoire doctrinale et littéraire
du moyen age* 19 (1952) 337–58, and R. A. Gauthier, "Notes sur les débuts (1225–1240) du premier
'averroïsme'," *Revue des sciences philosophiques et théologiques* 66 (1982) 322–73.

[5] An excellent synopsis of the whole range of translations is Fernand van Steenberghen, *La philosophie
au XIIIe siècle*, 2nd edn (Louvain-la-Neuve: Institut supérieur de philosophie, 1991) ch. 3.

a transmutation was sustained. Until the late eleventh century, the monastery was the near exclusive locus for training in Latin letters and for acquiring familiarity with even the rudiments of the classical traditions of thought (see Chapter 5). For centuries, however, the education of monks had been ordered more toward producing performers of the liturgy than either thinkers or, if we anticipate a more mystical bent, adepts at meditation. As for the late antique obligation of bishops to provide the clergy attached to their cathedral church with opportunities for further learning in Latin literature (typically including the Bible, exegetical texts, and bits of ancient rhetoric and encyclopedic lore), that had long since fallen into decay. The exceptions, as at Rheims in the tenth century under the scholar–bishop Gerbert, later Pope Sylvester II, stand out by their isolation.

It was thus a phenomenon of vast importance when towards the end of the eleventh century and through the beginning of the twelfth an entirely new array of educational institutions sprang up, first in France and then throughout northwestern Europe. Most significant in the long run was a proliferation of episcopal sees where teachers were brought in and paid to offer courses – open not just to the resident clergy – that went beyond simple grammar, composition, and elementary rhetoric. These so-called cathedral schools at times took on a permanence and complexity of organization that made them hubs of intellectual activity in the novel disciplines described above – logic, in particular, and natural philosophy. A few even attracted students from far away, intensifying excitement at these schools and greatly spreading their fame. Among such, Paris excelled in prestige and size already by the second and third decades of the twelfth century. The masters huddled around the cathedral of Notre Dame constituted an educational resource unimaginable in Europe just a few centuries before.

As developments at Paris reveal, the cathedral schools were soon joined by other institutional types competing for students in a fast-growing market. An enterprising scholar like Abaelard, lured to Paris by its cathedral school, might set himself up on his own to give lessons in advanced subjects to students willing to pay to sit at the feet of so renowned a master. Abaelard experimented with such ad hoc educational establishments often in his early career – first at Mount St. Geneviève across the Seine from the cathedral, then at two royal domains, Melun and Corbeil. The fact that such irregular institutions could survive indicates the changing climate for intellectual pursuits. Even some monasteries got into the business of higher studies, particularly where the spillover from cathedral schools presented an opportunity. Abaelard's sometime nemesis, William of Champeaux, quit the cathedral school of Notre Dame once

Abaelard had established a presence there, only to take up residence at the monastery of St. Victor, not far from Mount St. Geneviève. Assured a sustenance from his monastic calling, he there founded a school renowned for the rest of the century.[6]

By the middle of the twelfth century, the concentration of educational activities at a place like Paris reached the point where central coordination became a necessity. Consolidation was gradual, proceeding by fits and starts, but before century's end there had arisen at least in practice a network of masters and students gathering the earlier enterprises – cathedral school, ad hoc establishments, students at the monastery door – under an institutional umbrella that was to underwrite the scholarship we associate with the high and late Middle Ages and to characterize higher education as it has spread from Europe throughout the modern world. Most basically, this new instrument of knowledge production was a corporation of masters who could act together financially and at law, and whose incorporation allowed them to systematize all instructional procedures within the limits of, for instance, a city's walls. By the early fourteenth century, such an institution was habitually referred to as an *universitas*, a Latin synonym for the modern word 'corporation.' At Paris, the earliest extant document registering its existence is a royal charter of 1200, confirming the corporate rights and privileges of the masters. It was in effect a guild of teachers, monopolizing higher education within the precincts of the city.

Emergence of professionalism

Of course, just as the emergence of universities helps explain the expansion of subjects and sources for inquiry represented by the new translations, so the universities would be incomprehensible outside a context of still wider social innovation. Here it suffices to glance at the third of the cultural events listed above – increasing professionalism in society's upper ranks. Before the twelfth century, the business of ruling, acquiring, producing, even healing in medieval Europe required little in the way of specialized training. Growing up in the environment where such work was done provided experience enough, and the right background made it entirely possible to engage in several such areas of activity over the course of one's maturity. After all, in feudal society the

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[6] On all these early twelfth-century developments, see Stephen C. Ferruolo, *The Origins of the University: The Schools of Paris and their Critics 1100–1215* (Stanford, CA: Stanford University Press, 1985); and Richard Southern, *Scholastic Humanism and the Unification of Europe*, vol. I: *Foundations* (Oxford: Oxford University Press, 1995).

landlord was typically also local ruler and usually the manager of a considerable agricultural estate. After the twelfth century, each one of these pursuits had its specialists. Social institutions such as governments, houses of commerce, even urban hospitals had arisen, where if those in charge were not formally trained, they had to surround themselves with technical experts who were.

A single example suggests how, and why, this was so. In England, already by the eleventh century government was as centrally oriented as anywhere in Europe. Still, most of the activity that governing entailed was transacted locally, usually under the supervision of the lower aristocracy, and almost completely by means of the spoken word. By the mid-1200s, all that had changed. Royal authority had become a prime mover, royal courts the common site for transaction, royal agents required for even mundane operations, and written documents everywhere instrumental. The wrenching nature of the change is apparent in a controversial episode involving King Edward I. In 1279, Edward sent commissioners into each English county in order to compile a written survey of all tenements and proprietary holdings throughout the realm. Shortly thereafter, the king's justiciars initiated a decade-long campaign of bringing suit in royal court against lords and magnates claiming to exercise any of the many privileges or franchises at the heart of aristocratic governance. In technical terms such proceedings were designated *quo warranto*, asking by what warrant the privilege was held.[7] Beyond the novelty of so global an assault on noble prerogatives, particularly disruptive about the king's proceeding was that his courts would no longer accept as "warrant" testimony regarding customs or oral accounts of events long past, but instead only written documents appropriately authenticated to certify their legal worth.

The English aristocracy reacted with such outrage that in 1290 the king, by way of compromise, fixed Richard I's accession in 1189 as the date before which claims to privilege would not require written documentation. In the long run, of course, this compromise mattered less and less. By 1300, in England, it was increasingly the case that an assertion of privilege, ownership, or special dispensation – down to the level of manorial serfs – could be effectively exercised only on the basis of written title. Making that possible, of course, demanded an army of lawyers and notaries understanding the law, fluent in its technical language, and producing the writs themselves. From a land of legal amateurs in 1100, England had become by 1300 a nation dependent on professional legists. Faced with so imposing a model, the monarchies and emerging principalities

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[7] A fascinating examination of Edward's *quo warranto* proceedings and their cultural import can be found in M. T. Clanchy, *From Memory to Written Record*, 2nd edn (London: Blackwell, 1993) pp. 2–6 and 35–43.

on the continent made sure not to be left far behind. Moreover, what was true of law rapidly became true of administration, true of healing and, at least to a modest degree, true of business as well. It became true of teaching just as it did of delineating religious orthodoxy. To enter into society as a lawyer, a physician, a magistrate, a royal clerk, a tax collector, a professor, or a theologian meant spending years in training, formally acquiring the habits of mind necessary to be awarded the proper authority. In what was an increasingly "rationalized" world, all such tasks were delivered into the hands of professionals. And universities provided the setting par excellence where professional training was done and from which certification was procured. They had become a cultural sine qua non.

THE UNIVERSITY CURRICULUM

As indicated above, these universities – the delivery systems whereby a more complicated education was afforded to a larger number of people at the upper levels of society than ever before – originated in the narrowest sense as corporations with specific legal privileges and obligations. For the most part, the corporation comprised the collected masters at a particular locale, though in Italy it was occasionally the student body that received incorporation. Earliest to achieve such status were the clusters of schools at Paris, Oxford, and Bologna, all operating in the requisite manner before 1200.

Several other competitors arose in the thirteenth century at Padua, Naples, Montpellier, Toulouse, Salamanca, and Cambridge. Another designation for such an entity was *studium generale*, a general center of learning. To count as a *studium generale* an educational establishment had to contain more than one faculty of study attracting students from far and wide and possessing adequate standing to guarantee its graduates the privilege of teaching at any other such school. Over the course of the thirteenth century the mendicant friars – Dominicans and Franciscans – established in a few cities like Cologne and Florence centers of study more or less meeting these requirements and thus regarded as functionally equivalent to those on the preceding short list. In the fourteenth century formal universities were set up in German-speaking regions – the first so-called German university was constituted at Prague in 1348. By the end of the fifteenth century universities were to be found all over Europe.[8]

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[8] A compact history of the universities is Olaf Pedersen, *The First Universities: Studium Generale and the Origins of University Education in Europe* (Cambridge: Cambridge University Press, 1997). Fundamental for Oxford is J. I. Catto (ed.) *The History of the University of Oxford*, vol. I: *The*

Operations at each were determined by a division into the faculties of learning alluded to above. Most basic was the faculty of arts, offering instruction to those entering the university at the primary level. Starting with a reinforcement of the knowledge of Latin construction and composition obtained in grammar school, the arts masters quickly turned their attention to providing the grounding in Latin literature, natural philosophy, and – most importantly – logic that would qualify a person as *litteratus* or literate, and so suitable for employment as administrator or clerk in this increasingly professionalized society. Responsible for the equivalent of the modern undergraduate education, the arts faculty was present at every university, usually dominating the governing apparatus and enrolling far and away the largest number of students.

Once they mastered the arts, some students set their sights on a career in one of the technical professions requiring yet further training and study. For them arose faculties in the so-called higher disciplines, corresponding loosely with graduate education in the modern world. Most widespread were the faculties of law, which in medieval Europe were divided between those devoted to civil law, built on the foundations of Roman jurisprudence, and those concerned with the canon law of the church, also drawing on Roman models. The mushrooming demand for experts in legal counsel and documentation ensured a ready supply of graduates of the arts to enroll under either of the two sorts of law faculty for certification in those specialized fields. Medicine, too – at least the medical expertise increasingly demanded by wealthy elites in cities and at ruling courts – called for a professionalized corps of physicians with formal instruction beyond the arts. In Italy especially, where classical traditions of learned medicine had never fully disappeared, but also in southern France, universities had from the earliest days included a cohort of professors who eventually constituted independent faculties of medicine. Finally, the institutional church began to make its own professional demands. Beyond the canon law required for ecclesiastical courts, a need arose for the technical interpretation of doctrine – in other words, for theology. In the first half of the thirteenth century, faculties of theology quickly distinguished themselves as most prestigious of all in advanced studies, most spectacularly at Paris but also at Oxford and eventually at a few other institutions as well.

Within each faculty, it was the professors who established the curriculum, fixing the subject matter, required texts, and sequence of courses. Foundational

for any literate career and all higher study, the curriculum in arts set the tone for intellectual endeavor throughout the period. Here is where to look first for the educational correlatives to much of what we would consider medieval philosophizing.[9] Foremost came training in what was referred to since antiquity as the trivium, the triad of arts concerned specifically with language. At the outset stood grammar, which aimed both at polishing grammar-school studies and at imparting the theory found in the classical texts of Donatus and Priscian (see Chapter 15). From here, the way proceeded fast to logic, the heart and soul of the arts in the Middle Ages. Formal training focused on the logic of Aristotle, both old and new, though students were expected to keep abreast of advances beyond Aristotle in the so-called "logic of the moderns" (*logica modernorum*). Rhetoric was squeezed in at the margins, sometimes just on feast days when other classes were suspended. In the late 1100s, students passed beyond these linguistic arts on to the ancient "group of four" or quadrivium, of which geometry, by way of Euclid, and music, by way of Boethius, received the greater emphasis, with only modest time allocated to arithmetic and astronomy.

By the turn of the thirteenth century, Aristotle's writings on natural philosophy, and subsequently metaphysics, posed a serious challenge to this classical Latin conception of the arts curriculum. Authorities, both bishops' officials and some professors instigated primarily by the theologians, at first resisted incorporating Aristotle's broader corpus into the course of study, fearing that his philosophy of nature in particular would endanger Christian belief. In Paris, where opposition was strongest, prohibitions in 1210 and 1215 formally excluded from the curriculum Aristotle's natural works and commentaries on them from the Arabic tradition, most probably those of Avicenna. Yet a papal proclamation of 1231 suggests that already by then the prohibition was wearing thin, and a curricular statute of the arts faculty in 1255 shows that by mid-century the Aristotelianizers had won the day. From then until the end of the Middle Ages, Aristotle's *libri naturales* and the *Metaphysics*, as well as the *Ethics*, came at all universities to dominate the arts curriculum outside of logic.

Teaching progressed by way of lectures on the foundational texts, supplemented by classroom and sometimes public disputation on theoretical problems or issues of interpretation and elaboration. Though the precise terms varied according to time and place, in all cases students began by attending lectures for a few years, then added the obligation to take part in the public disputations, and finally moved to "determination," when as bachelors of arts they would

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[9] A good survey of current knowledge of the curriculum at Paris and Oxford is provided by Olga Weijers and Louis Holtz (eds.) *L'enseignement des disciplines à la Faculté des arts, Paris et Oxford, XIIIe–XVe siècles: actes du colloque international* (Turnhout: Brepols, 1997).

themselves lecture on the base texts in submagisterial or "cursory" classes. After as many as seven or eight years altogether, the successful candidate would be granted official license to teach, shortly thereafter commencing, or "incepting" on, a teaching stint as full-fledged master of arts. A similar system was adopted in the faculty of theology, which provided, we moderns must never forget, perhaps even more than arts, the central locus for the philosophical thinking surveyed in this book. There the base texts were the Bible and a twelfth-century course book on the major issues of Christian doctrine, Peter Lombard's *Book of Sentences*. Again, following several years spent auditing magisterial lectures on both, students began to participate in disputations and then advanced as bachelors to lecturing "cursorily" themselves – at Paris, for two years on the Bible and then another one or two on the *Sentences*. At the end came licensing, succeeded – if and when an opening was available – by inception and a few years (or sometimes much longer) teaching as master of theology.

TYPES OF PHILOSOPHICAL WRITING AND OCCASIONS FOR PHILOSOPHIZING

When university masters lectured on a text, they proceeded section by section, stopping after each to comment on its meaning, both in the literal sense and in more general terms. The whole procedure was technically designated a *lectio* or reading. When, instead, they engaged in *disputationes*, an *aporia* or *quaestio* was introduced for debate. Under the master's supervision, contrary arguments were then presented by an opponent and a respondent, often followed by more freewheeling discussion but always by a formal determination or resolution of the issue (typically by the master himself) and then by answers to initial arguments still left unresolved.[10]

Loosely paralleling these two instructional methods were the two main literary genres, both probably originating as records of what had taken place in class but turning increasingly over the years into artificial pieces executed privately by the master. Linked to the readings of texts were commentaries, the most philosophically substantive being those on Lombard's *Sentences* (among theologians) and on the works of Aristotle (among both arts masters and sometimes theologians). Associated with disputations were collections of redacted, sometimes considerably revised *quaestiones disputatae*, or disputed questions. The

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[10] For a survey of the evolving form of the disputation, both as a classroom exercise and as a literary genre, see Olga Weijers, *La "disputatio" à la Faculté des arts de Paris (1200–1350 environ). Esquisse d'une typologie* (Brepols: Turnhout, 1995) and *La "disputatio" dans les Facultés des arts au moyen âge* (Brepols: Turnhout, 2002).

latter could range from an investigation inspired by a particular Aristotelian text to a wide-ranging overview or *summa*, spanning an entire area or field. Less prominent was a third genre, consisting of the *tractatus* or treatise on a particular subject or theme – for example, Thomas Aquinas's *On Being and Essence* – and also handbooks for a specific discipline, such as Peter of Spain's *Summulae logicales*. These circulated widely in the arts.

Of course it is taken as given here that the venue for philosophical thinking and writing, during most of the Latin Middle Ages, was the university. Beginning in the fourteenth century, laymen outside the walls of academe – Dante Alighieri is a case in point – increasingly intruded on the proceedings. So far as the university was concerned, however, the preeminent locus of activity was, by profession, within the faculty of arts, even if much of what we would consider philosophical speculation was a product of the three higher faculties as well. Current scholarship is only just beginning to mine works in law and medicine for the sometimes surprising yield of medieval philosophy to be found there. More customary has been the attention of historians of philosophy to scholastic theological writings. Much of what is covered in the chapters that follow will be taken from the literary legacy of bachelors and masters in theology. Perhaps a final reflection is warranted on why this is the case.

Simply put, the fact is that practicing theologians throughout the high medieval period regularly concerned themselves with philosophy as we conceive it and composed what we recognize as philosophical works. Aquinas, for instance, produced most of his commentaries on the logical and natural works of Aristotle, as well as on the *Metaphysics*, while he was a master of theology, often long after his earliest professorship in the faculty of theology at Paris. Perhaps more importantly, Thomas the theologian continued to tackle issues of sometimes exclusively philosophical import, making room for them extensively in his theological writings. It is no accident that his *Commentary on the Sentences* and *Summa theologiae* figure prominently in discussions of medieval philosophy.

There is a reason why this was so. Scholastic theologians saw their primary task as explicating their beliefs. But for them, especially in the Latin thirteenth and early fourteenth centuries, thinking about religious truth was not to be kept separate from understanding the rest of the world. If the clarification of doctrine was to aspire to anything like Aristotle's standards for certain knowledge or science (see Chapter 26), it would have to turn to natural reason and philosophy for much of both its content and its argumentation. Indeed, if theology were to maintain its prestige among its sister faculties at the university, it would have to be especially scrupulous about its arguments and careful to show how their conclusions were consistent with knowledge in other fields. No wonder theologians spent so much time philosophizing. And no surprise that they

were punctilious in distinguishing between appeals made solely to reason and those drawing upon revelation vouchsafed by faith. In such an intellectual atmosphere, philosophy might well find a home in the work of a theologian. And theological writings might easily be read and appreciated for their philosophical worth, without sacrificing even the most rigorous division between reason and revelation.

5

MONKS AND FRIARS

DAVID LUSCOMBE

Most medieval Christian philosophers were clerics and priests, who staffed the schools (and later the universities) in towns and cathedral cities. Many of these were also monks and friars. Monks contributed to philosophy in the cloisters of their monasteries and in universities, and friars also contributed both in the schools or *studia* of their orders and within universities.

MONKS

The transformation of the Roman Empire, particularly between the fifth and sixth century, was accompanied by educational initiatives on the part of bishoprics and monasteries. Between 397 and 421, Augustine of Hippo outlined a program in his treatise *On Christian Doctrine* for communicating Christian doctrine into which was integrated the study of profane authors and ancient culture.[1] Influential works were produced in Italy (by Boethius, Cassiodorus, and Pope Gregory the Great) and in Spain (by Isidore of Seville), which enabled active centers of culture in the West as far away as Anglo-Saxon England to counteract the stagnation of imperial decline.

The task of the monk was to escape from this world in order to find God. What place Benedict of Nursia (d. *ca.* 550), the father of Western monasticism, allowed for scholarly studies by the monks who followed his *Rule* is not clear, although *lectio divina* was an obligation that required literacy, books, meditation, and thought. Cassiodorus (d. *ca.* 580), on the other hand, provided a library in his monastery in Calabria in southwest Italy, called the *Vivarium* or "fish pond," from which ancient and Christian books were disseminated throughout Europe – to Northumbria, for example, and to the court of Charlemagne and to Isidore's Seville. Cassiodorus divided his *Institutions* into two books: *Divine* and *Human*. The first was devoted to the Bible, and the second to the seven liberal arts that provided the introduction for philosophical studies to be integrated

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[1] See Henri I. Marrou, *Saint Augustin et la fin de la culture antique* (Paris: E. de Boccard, 1938–49).

into the study of Christian doctrine, following the example of Augustine. In this way, a new culture was being born in princely courts, episcopal centers, and monasteries that could withstand decay – one that tied together the legacy of the ancient study of the arts and of philosophy with a Christian education.[2]

Monasteries and nunneries in medieval Europe were numerous. Some ran schools for boys or girls, while others were also important centers of scholarship and of book production: Corbie in Saxony, for instance, in the ninth century, or Malmesbury in Wiltshire in the twelfth. The survival within early medieval Western Europe of the literature – and therefore also the thought – of antiquity, both classical and Christian, is (to put it conservatively) largely due to the dedication of monasteries in the Carolingian epoch to the collection and the copying of texts.[3] Studious monks engaged in the study of the Bible and the writings of the Fathers, both Western and Eastern, who had interpreted and expounded the sacred text, such as Origen, Basil, Ambrose, Augustine, Jerome, Leo, and Gregory. *Theoria* for such monks meant prayer and contemplation in anticipation of celestial beatitude, while *philosophia* meant living wisely, not so much in accordance with the wisdom of this world as with that of Christ and with that of the next world (see Chapter 33). Its pursuit, however, also involved the study of grammar and of pagan literature. The Carolingian kings of Francia valued the education given in monasteries and in other church schools, and Alcuin of York – who developed the practice of using the tools of logic when inquiring into Christian doctrine – taught a generation of new monastic leaders, first at the Carolingian court and later as abbot from 796 to 804 at St. Martin's at Tours.[4]

In Carolingian education, scholarship and speculation about both secular and divine wisdom and learning were fused – and generated controversy. The foremost disputants in vigorous debates about the soul, the Eucharist, predestination and human free will, the nature and person of Christ, and icons all included monks as well as secular clergy, whose attitudes to learning and whose

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[2] See Jacques Fontaine, "Education and Learning," in P. Fouracre (ed.) *The New Cambridge Medieval History*, vol. I: *c.500–c.700* (Cambridge: Cambridge University Press, 2005) 735–59; Jacques Fontaine, *Isidore de Séville et la culture classique dans l'Espagne wisigothique* (Paris: Études Augustiniennes, 1984); John Contreni, "The Carolingian Renaissance: Education and Literary Culture," in R. McKitterick (ed.) *The New Cambridge Medieval History*, vol. II: *c.700–c.900* (Cambridge: Cambridge University Press, 1991) 709–57.

[3] See Pierre Riché, *Education and Culture in the Barbarian West, Sixth through Eighth Centuries*, tr. J. J. Contreni (Columbia: University of South Carolina Press, 1976); Claudio Leonardi, "Intellectual Life," in T. Reuter (ed.) *The New Cambridge Medieval History*, vol. III: *c.900–c.1024* (Cambridge: Cambridge University Press, 1999) 186–211.

[4] See John Marenbon, *From the Circle of Alcuin to the School of Auxerre: Logic, Theology and Philosophy in the Early Middle Ages* (Cambridge: Cambridge University Press, 1981).

functions were not always much different.[5] Contributions to new learning were also provided by monks such as Hilduin of St. Denis, who in the ninth century first translated the writings of pseudo-Dionysius from Greek into Latin (although this translation was quickly supplanted by a new translation by John Scottus Eriugena, the philosopher and scholar at the court of King Charles the Bald).

In the eleventh century, Anselm – monk and later prior and abbot of Bec in Normandy and, from 1093, Lanfranc's successor as archbishop of Canterbury – owed much to Lanfranc's mastery of the application of grammar and dialectic to the study of theological questions. Like his teacher, Anselm had traveled far, from Italy to Normandy, in search of a cloistered setting in which he could study and pray. Arriving at Bec around 1059, he soon produced distinctive, original, and carefully articulated works of prayer that led into deeply philosophical meditations. Anselm seems to begin with truths provided by scriptural revelation and to proceed to formulate deductions according to the rules of logic. But his work was also guided by conversations (*colloquia*) he had within the monastery of Bec with his monastic companions. Anselm was a fascinating speaker, fond of using analogies and images to illustrate his inquiries, but he was also deeply introspective in meditation and in pursuit of arguments that drew their strength from reason alone.

Peter Abaelard, usually portrayed as an aggressive teacher of logic in schools in and around Paris and as a champion of the use of dialectic in the field of theology, before being brought down as a heretic by Bernard, abbot of Clairvaux (the foremost Cistercian monk of the day), was also himself for over twenty years a monk, as well as an abbot who came to show a (perhaps still underestimated) dedication to the promotion of monastic ideals in the study of philosophy. In the years before his entry into monastic life, Abaelard took philosophy to mean the study of dialectic above all other branches of philosophy (*Historia calamitatum*, ed. Monfrin, lines 25–6, 78, 226). Admittedly his entry into monastic life – following a violent attack upon his person which resulted in his castration and his separation from his wife Héloïse – was not entirely voluntary, but he thereafter advocated the teaching of the arts as a hook or a bait to lead students to the study of true philosophy that is found in sacred books, thus following the example of Origen, whom Abaelard regarded as the greatest of Christian philosophers (ibid., 663–89).

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[5] See David Ganz, "Theology and the Organisation of Thought," in R. McKitterick (ed.) *The New Cambridge Medieval History*, vol. II: *c.700–c.900* (Cambridge: Cambridge University Press, 1995) 758–85; David Luscombe, "Hrabanus Maurus and the Predestination Controversy," in F. J. Felten and B. Nichtweiss (eds.) *Hrabanus Maurus. Gelehrter, Abt von Fulda und Erzbischof von Mainz* (Mainz: Publ. Bistum Mainz, 2006) 141–58.

Such a close convergence between dialectic and theology was, however, unusual, not least in monastic circles. Abaelard's condemnation for heresy at an ecclesiastical council held at Sens in 1141 was driven by monks such as Bernard of Clairvaux, who also sought the condemnation of the teaching of Gilbert of Poitiers in 1148.[6] Perceived antitheses between the meditation sought in the monastic cloister and disputations fought in the schools – between Christian reflection, pagan philosophy, and scholarly exercises – underlay such clashes.

Indeed, these disputes were fueled in part by competition to lay claim to the true meaning of philosophy. For many monks, as for some of the Greek Fathers of the church, philosophy was a way of living the monastic life wisely in imitation of Christ, in accordance with reason and after having renounced the world. Benedictine monastic meditation was, understandably, centered on the discipline of the inner self in the presence of God and according to the teaching of Scripture. The truest philosopher in this sense was Jesus Christ.[7] But the ancient philosophers of Greece and Rome were also held in high esteem, whatever limitations were heaped upon them. "Spoiling the Egyptians," it was often said, "served to enrich the Hebrews" – in other words, pagan philosophy could be put to good use by Christians. Abaelard, for instance, taught that among the Hebrews (such as the disciples of Elisha, the Essenes, and the Nazarenes) and the gentiles (such as Diogenes), as well as among the early Christians (such as John the Baptist and the Desert Fathers), there had always been people who lived chaste, contemplative lives separated from the world, seeking the truth about God while living a life of virtue. Abaelard claimed that a monastic instinct was universal, by which he meant the linking of the solitary life with prayer and the study and practice of philosophy.[8] Guided by Jerome, whose *Adversus Jovinianum* provided arguments for proclaiming that chastity and good philosophy were interdependent qualities,[9] Abaelard also saw models of monastic life in the lives of the ancient philosophers, and even their statesmen.

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[6] See John of Salisbury, *Historia pontificalis* (ed. Chibnall, pp. 15–41).

[7] Cf. Jean Leclercq, "Pour l'histoire de l'expression 'philosophie chrétienne'," *Mélanges de sciences religieuses* 9 (1952) 221–6; *L'amour des lettres et le désir de Dieu: initiation aux auteurs monastiques du moyen âge* (Paris: Cerf, 1957) pp. 99–100, and Henri Rochais, "*Ipsa philosophia Christus*," *Mediaeval Studies* 13 (1951) 244–7.

[8] When abbot of the monastery of St. Gildas in Brittany, Abaelard invoked, in a *Sermon* on John the Baptist, the Old Testament examples of Elijah and Elisha who lived in solitude, of John "who philosophized with the angels in the hermitage," and of Paul, Anthony, Hilarion, and Macharius, early Christian monks who were models of the monastic life which is the "Christian philosophy." Abaelard, *Sermon* 33 (*Patr. lat.* 178: 585). See Jean Leclercq, "*Ad ipsam sophiam Christum*: Das monastische Zeugnis Abaelards," in F. Hoffmann *et al.* (eds.) *Sapienter ordinare: Festgabe für Erich Kleineidam* (Leipzig: Benno, 1969) 179–98; Jean Leclercq, "'Ad ipsam sophiam Christum': Le témoignage monastique d'Abélard," *Revue d'ascétique et de mystique* 46 (1970) 161–81.

[9] See Philippe Delhaye, "Le dossier anti-matrimonial de l'*Adversus Jovinianum* et son influence sur quelques écrits latins du XIIe siècle," *Mediaeval Studies* 13 (1951) p. 71.

His insights are best presented in the second book of his *Theologia christiana*, where he explores the themes that, in his view, the ancients best exemplified: *contemptus mundi*, love of solitude, manual work, continence, temperance – and the study of letters. The truth of pagan philosophical teachings was the fruit of their perfect living (*Opera theol.* II: I.56–115).[10]

Many schools were run by canons who belonged to cathedral chapters or to lesser collegiate churches. Here the liberal arts were taught and boys were often prepared for the priesthood. A notable example around the year 1000 is the cathedral school of Chartres under Fulbert, and later, in the early twelfth century, under master Bernard of Chartres. New orders of regular canons – canons who lived under a rule, usually the one attributed to Augustine – sometimes also provided education and spectacularly so in the twelfth century at the abbey of St. Victor near Paris under Hugh, whose highly influential teaching and writing covered a very wide field. His *De sacramentis*, on the sacraments of the Christian faith, presents a sweeping view of the history of salvation from the work of Creation to the work of Restoration. His *Didascalicon*, perhaps the most important guide to the arts written in the twelfth century, seeks to show how the study of four branches of philosophy (theoretical, practical, mechanical, and logical) can restore the divine likeness within human nature.

FRIARS, THEIR *STUDIA*, AND UNIVERSITIES

Universities, which provided an arts curriculum, as well as supporting within a *studium generale* other faculties that might include theology, law, or medicine, began to take hold from the late twelfth and early thirteenth centuries when and where masters were incorporated (see Chapter 4). These developments were partly driven by secular and regular clergy – that is, by priests or canons who, in addition to teaching the arts, theology, or canon law, had been ordained to perform such tasks as preaching, while living either singly or within communities that observed a rule – but independent practitioners of medicine and civil law also taught and mentored pupils, and their incorporation in universities is not to be left out of account. Indeed, in some places their search for a more vocational education may have been the main driver of change.

In addition to students who learned the arts and studied the higher disciplines of theology, law, or medicine, there arrived, from the early thirteenth century

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[10] See also *Theologia "Scholarium"* (*Opera theol.* III: I.96–176). In his *Historia calamitatum* Abaelard reports Héloïse saying to him that all the world's peoples – Gentiles and Jews as well as Christians – have included some who sought a life of virtue in detachment from the world (ed. Monfrin, lines 482 ff.).

onward, students who belonged to orders of mendicant friars, especially the Franciscan order of Friars Minor (the Greyfriars) founded in 1209 by Francis of Assisi (1181/2–1226), and the Dominican Order of Preachers (the Blackfriars) founded by Dominic (*ca.* 1172–1221), which took definite shape in 1220, as well as the Carmelite and Augustinian (or Austin) friars. The mendicant orders dedicated themselves, under the special care of the papacy, to the ideals of poverty and humility for the sake of following the example of Christ (see Chapter 42), and also (unlike monks, generally speaking) to the tasks of preaching and teaching to public audiences outside their convents, and typically within cities and towns. They often enjoyed great success, and ran their own schools.

According to his biographer, Thomas of Celano, Francis was not a highly educated man, and he once said that educated men should forsake all their learning along with their other possessions: "learning robs many people of their gentle characters" (*Vita secunda*, par. 194). There were reservations within the Franciscan order about learning and study – there always had been some such reservations within religious communities – but there was a need for training in order to preach. According to his companions, Francis "venerated most warmly those who were wise in religion." He was happy for learned but prayerful men to enter his order. As his Testament reads, "We ought to honor all theologians and ministers of the divine word."[11] An early example was the Portuguese Antony of Padua (*ca.* 1195–1231), who became an Augustinian canon and studied theology at Lisbon and then Coimbra. In 1220 he joined the Franciscans, becoming, with the approval of Francis, the first lector in theology and also famous as a preacher. At Paris Alexander of Hales, a master who joined the Franciscan order in 1236, lent his weight to the emergence of the Franciscan *studium* there as well as to the use of the *Sentences* of Peter Lombard in preference to the Bible as the basic text for the teaching of theology. His students included John of La Rochelle, Odo Rigaldus, William of Middleton, and, above all, Bonaventure, who, when they became masters in Paris, showed the way to developing the teaching of theology in a systematic and comprehensive manner with the support of a detailed command of philosophical materials.

Long years of study were a necessary preparation for the Dominicans, who were especially committed to preaching. Dominic developed a style of itinerant, mendicant preaching against dissenting Albigensian communities in the south of France. Having established a permanent community for his mission at Toulouse, he gained recognition between 1216 and 1218 from Pope Honorius III for his new religious order, the Order of Preachers. A training in preaching was already

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[11] Ed. R. B. Brooke, *Scripta Leonis, Rufini et Angeli sociorum S. Francisci* (Oxford: Clarendon Press, 1970) p. 70.

important for clergy in cathedral schools; training for pastoral duties became more important for students, seculars and mendicants alike, with the arrival of the mendicant friars. The mendicants in their priories established independent schools for the education of their own number and of others also. In the case of the Dominican order, founded to preach the faith and to combat heresies, every convent was required to have a *lector* or teacher who had himself studied theology for four years.[12] And in some places *studia generalia*, which drew students of the order from all parts, promoted advanced study and research. Moreover, Dominic dispersed his earliest companions to university cities.

In Paris, Oxford, Cambridge, and elsewhere, as well as in Toulouse, mendicant *studia generalia* were implanted within university towns, but sometimes, as in Cologne, Erfurt, and Prague, the establishment of mendicant *studia generalia* preceded that of universities. Moreover, in many important universities, including Oxford, the teaching of theology was at times dominated by mendicant friars.[13] In some southern universities (such as Montpellier and Bologna), where there was for a long period no faculty of theology, mendicant *studia* had a monopoly in the teaching of theology.[14] On the other hand, although the Carmelite *studium* in Oxford in the early fourteenth century was highly active, the Carmelite order's *studium generale* for England was located in London from 1294. According to some scholars, William of Ockham, a student and a teacher at Oxford between 1307/8 and 1320, was in residence at the London Greyfriars between 1320 and 1324, together with Walter Chatton and Adam Wodeham, a period when he produced much of his philosophical and theological work.[15]

When located in university towns, the mendicants were closely linked with university activities, with mendicant teachers also occupying university chairs, non-mendicant students attending lectures given by mendicant masters, and some non-mendicant masters lecturing to mendicant students in their *studia*. It

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[12] See Marian Mulchahey, *"First the Bow is Bent in Study . . .": Dominican Education before 1350* (Toronto: Pontifical Institute of Mediaeval Studies, 1998). Also William Hinnebusch, *The History of the Dominican Order* (State Island, NY: Alba House 1966–73) vol. II.

[13] At Oxford the Dominicans and the Franciscans established *studia* in 1229–30. Carmelites arrived there in 1256 and Augustinian friars in 1266–7. Especially important studies relating to Oxford are those of J. I. Catto, "Theology and Theologians 1220–1320," in J. I. Catto (ed.) *The History of the University of Oxford*, vol. I: *The Early Oxford Schools* (Oxford: Oxford University Press, 1984) 471–517, and William Courtenay, *Schools and Scholars in Fourteenth-Century England* (Princeton: Princeton University Press, 1987).

[14] For Bologna see Hastings Rashdall, *The Universities of Europe in the Middle Ages*, rev. edn by F. M. Powicke and A. B. Emden (Oxford: Clarendon Press, 1936) I: 253.

[15] See William J. Courtenay, "The Academic and Intellectual Worlds of Ockham," in P. V. Spade (ed.) *The Cambridge Companion to Ockham* (Cambridge: Cambridge University Press, 1999) p. 23 with note, but for doubts about the London connection see Rondo Keele, "Oxford *Quodlibeta* from Ockham to Holcot," in C. Schabel (ed.) *Theological Quodlibeta in the Middle Ages: The Fourteenth Century* (Leiden: Brill, 2007) pp. 654–9.

was not until 1247, for instance, that the Franciscan *studium* at Oxford acquired a Franciscan, as distinct from a secular, master. Robert Grosseteste, who was not a friar, taught in the Franciscan *studium* there until 1235 and was succeeded by three other secular masters. At Paris as well, the first teacher of theology in the Dominican *studium* was a secular master, John of St. Albans, who was succeeded *ca.* 1225 by another secular, John of St. Giles. Some secular masters, such as John of St. Giles, Alexander of Hales, and Robert Bacon, later became friars and thereby brought the mendicant houses into closer association with their universities; in the 1240s and 1250s the friars established themselves in Oxford as teachers of theology: Richard Rufus of Cornwall, Thomas of York, Henry Wodstone, John of Wales, Thomas Docking, Adam Marsh, and Roger Bacon as Friars Minor; Richard Fishacre, Simon of Hinton, and Robert Kilwardby as Dominicans. Some of these had studied or taught at Paris and were also to return to Paris.

Although Augustinian friars were largely Italian, they and the other three major mendicant orders were 'international.' Their leading teachers and scholars had a European status that was reinforced both by their mobility and by their migrations around different centers of study. Links, for example, between the courses taught by friars such as Richard Rufus and John Duns Scotus when in Paris and when in Oxford are well attested. By 1250 or so, the friars were predominant among masters of theology in these two universities; the quality of their teaching was very high and their *studia* seem to have been well organized. The religious orders also did well in promoting contacts and exchanges, with students and teachers being sent from England or Italy or Germany to France and in other directions as well. Two notable examples are the Franciscan Scotus, who taught in Oxford, Cambridge, Paris, and Cologne, and the Dominican Meister Eckhart, who was sent from the Dominican convent in Erfurt to study in Paris (where he also later taught), but who was active as well within his order in Thuringia, Saxony, Strasbourg, and Cologne.

Despite these facts, most universities were principally the preserve of secular masters and secular students; friars, and to a lesser extent monks, were an additional presence. Benedictine and Cistercian monks, often rooted in the countryside, risked being left behind by the rise of university centers in cities and by the appearance of the orders of mendicant friars. At times from the mid-thirteenth to the fifteenth century, relations were very strained between the mendicant orders and the secular masters within some universities, notably Paris.[16] The causes of disputes varied: there were concerns over privileges,

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[16] For Paris see especially Michel-Marie Dufeil, *Guillaume de Saint-Amour et la polémique universitaire parisienne 1250–59* (Paris: Picard, 1972), and also Rashdall, *Universities* I: 370–97. For Oxford

over competition for the recruitment of students to courses given within the universities and of novices within the *studia* run by the friars, over the content of the teaching given, and also over the apocalyptic prophecies and teachings of the twelfth-century monk Joachim of Fiore and the issue of apostolic poverty that the friars especially supported (see Chapter 42).

One source of tension, at least in Oxford and Paris, was that secular theologians gained their degrees in theology after studying philosophy, whereas the mendicants were not allowed to study in the arts faculty but lectured on the *Sentences* and the Bible without graduating in arts. A further difficulty was that the mendicant friars, often operating outside of the traditional parochial and diocesan structures but directly subject to the pope, encountered opposition from those who defended a church hierarchy that was rooted in parishes, monasteries, and bishoprics. When they asked for licenses to undertake some of the functions of parish priests, such as hearing confessions, mendicant friars were seen by many secular clerics as intruders into a church that derived its proper form from a vision of the primitive church, in which the apostles and disciples were seen to be forerunners of the bishops and their clergy. In response, some apologists for the friars argued that church hierarchy rightly evolves over time; the earlier institutional hierarchy (notably, bishops and parish priests) was now accompanied by a "contemplative" hierarchy in which those who professed a purer life (such as Francis) had become preeminent over office-holding clergy. These debates in turn acquired a cosmic dimension when visions of the right structure for the church on earth were adjusted to suit visions of the heavenly or angelic hierarchy.[17]

THE UNIVERSITIES AND THE MONASTIC ORDERS

Important as the mendicant orders were in the development of university life and learning, monks contributed as well. Although outnumbered and overshadowed by friars – in the promotion of philosophical debate, they scarcely mattered – in their search for a university education for themselves monks founded colleges and *studia* in Paris, Oxford, and elsewhere. At Oxford they studied mainly

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see Michael Sheehan, "The Religious Orders 1220–1370," in Catto, *The Early Oxford Schools*, pp. 204–8, and also Rashdall, *Universities* III: 70–4.

[17] See Yves Congar, "Aspects ecclésiologiques de la querelle entre mendicants et séculiers dans la seconde moitié du XIIIe siècle et le début du XIVe siècle," *Archives d'histoire doctrinale et littéraire du moyen âge* 28 (1961) 35–151; David Luscombe, "The *Lex divinitatis* in the Bull *Unam Sanctam* of Pope Boniface VIII," in C. Brooke *et al.* (eds.) *Church and Government in the Middle Ages* (Cambridge: Cambridge University Press, 1976) 205–21; David Luscombe, "The Hierarchies in the Writings of Alan of Lille, William of Auvergne and St Bonaventure," in I. Iribarren and M. Lenz (eds.) *Angels in Medieval Philosophical Enquiry* (Aldershot: Ashgate, 2008) 15–28.

theology. They were not dominant as teachers, although John Uthred of Boldon, a notable preacher and controversialist, was a distinguished exception. In the thirteenth century monks had not had the rush of recruits that the mendicant friars experienced. Still, in Paris a college was founded in 1246 for students of the Cistercian order (the white monks), and in 1292 the general chapter of the order at Cîteaux ordained that every abbey with more than twenty Cistercian monks had to send one monk to a university. In Oxford, the Cistercians had already established a *studium*, perhaps in 1282. Benedictine (or black) monks also established colleges there, including Gloucester College in 1283, Durham College in 1286, and Canterbury Hall in 1361.[18] In 1336, constitutions of Pope Benedict XII laid a requirement on all monasteries to send suitable monks to study at universities.

EMERGING DIFFERENCES BETWEEN THE MENDICANT ORDERS

After the condemnation of 1277 (see Chapter 8), some (although by no means all) Franciscan and Dominican students developed pronounced differences over the correct use of philosophy, especially with respect to Aristotelian philosophy, the distinction between essence and existence (see Chapter 45), and the unity and plurality of forms (see Chapter 46). In 1286, for instance, John Pecham – who became lector to the Franciscans in Oxford after teaching theology in Paris, and who had a notable career as provincial of the order, as a teacher of theology in the papal court, and finally as archbishop of Canterbury – condemned as heretical the teaching of Thomas Aquinas on the unity of the substantial form (the rational soul) in human beings. Franciscan friars in England who studied Aquinas's *Summa theologiae* were required from 1282 on to use a *Correctorium* of his teaching provided by William de la Mare, to which there were five replies from Dominican critics, including Thomas of Sutton and Robert Orford, who called William's work a *Corruptorium*.

The differences that emerged between the mendicant orders generated various *viae* – a *via beati Thomae,* a *via domini Alberti*, etc. – but masters within each of the orders were not in perfect agreement either. For example, Aquinas, who had already come under attack from other Dominican masters between 1269 and 1270 over his view of the unity of the form that holds together the intellective and moral powers of a human being, was further condemned on this issue at Oxford in 1277 by Kilwardby, the Dominican archbishop of Canterbury.[19] On

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[18] Rashdall, *Universities* III: 185–91.
[19] See D. A. Callus, *The Condemnation of St Thomas at Oxford* (London: Blackfriars Publications, 1955).

the other hand, a series of chapter meetings of the Dominican order defended the study of Aquinas's thought. As well as being controversial, early Thomism was dynamic and creative, and mounted robust attacks against the threats facing it successively from the teachings of Henry of Ghent, John Duns Scotus, and Peter Auriol.

Albertism, the *via Alberti*, is often seen as a movement among followers of Albert the Great who turned against the teachings of Aquinas and who promoted the Neoplatonic tradition found, for example, in the *Liber de causis*, in Solomon ibn Gabirol, and in pseudo-Dionysius. This opposition was much more marked in fifteenth-century Cologne than in other parts of Europe, where it is more difficult to discern; in Cologne, the claims of the Albertists to be the true followers of Aristotle, as well as their differences with the followers of Aquinas, are perhaps best illustrated by Heymeric de Campo in his *Problemata inter Albertum Magnum et Sanctum Thomam*. The Albertists were also inspired by the works of the Dominicans Ulrich of Strasbourg, who had been a fellow student of Thomas but scarcely knew his work, and Dietrich of Freiberg, who was sharply anti-Thomist.[20] The Albertists were not all friars, however: one of Ulrich's most careful readers was Denys, the Carthusian monk of Roermond who had become a master of arts at Cologne in 1424[21] and whose writings were themselves widely read. They tended to reject the Thomist distinction between *esse* and *essentia*. They were also anti-nominalist: one of Heymeric's teachers was the Parisian master John of Nova Domus, whose critique of nominalism, the *via moderna*, is contained in his *De universali reali* (see Chapters 48–9).

The bold innovations – the "English philosophy" – that penetrated Paris and other places in the early fourteenth century were especially due to two Franciscans, Scotus and Ockham. Scotus's attack on "necessitarianism" or determinism was supported by Ockham, his fellow Franciscan, who also sought to free God from all limitations, be they essences, causes, universals, or Ideas. In the early fourteenth century there was also considerable tension between the members of the mendicant orders and others about the relationship between grace, free will, and predestination. Robert Holcot, for instance, a Dominican friar and also a pupil of Ockham, gave attention to humanity's partnership with God, whereas Thomas Bradwardine complains in *The Case of God Against the Pelagians* that, when he had studied philosophy at Oxford, "what he heard day in, day out,

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[20] See Maarten Hoenen and Alain de Libera (eds.) *Albertus Magnus und der Albertismus: Deutsche philosophische Kultur des Mittelalters* (Leiden: Brill, 1995); Gilles-Gérard Meersseman, *Geschichte des Albertismus* (Paris: Haloua, 1933–5).
[21] See Alessandro Palazzo, "Ulrich of Strasbourg and Denys the Carthusian," *Bulletin de philosophie médiévale* 46 (2004) 61–113.

was that we are the masters of our own free acts, that ours is the choice to act well or badly, to have virtues or sins."[22]

The sharpening in the early fourteenth century of differences between schools of thought – Dominican friars, for example, mostly proving to be followers of Thomas Aquinas and Franciscan friars becoming committed to support of the teaching of Scotus – led to a deepening conservatism. Dominican and Franciscan friars tended to follow the traditions of their own orders, and at chapter meetings Dominicans strove to promote the teachings of Aquinas. Although his teachings had been put under a shadow in 1277, Aquinas was canonized as a saint in 1323; in 1325 the current bishop of Paris, Stephen Bourret, reversed the condemnation of 1277 insofar as it affected St. Thomas.[23] Durand of St. Pourçain, a Dominican master in Paris in the early fourteenth century, had his teaching examined by a commission of fellow Dominican friars, led by Hervaeus Natalis, and was censured for departing from Aquinas's teachings in numerous ways. Criticism of Thomist and Aristotelian thought was a feature of much philosophical and theological inquiry in the fourteenth century. Peter of Ailly, a prominent nominalist and chancellor of the University of Paris in 1389, warned the faculty of theology against the method of Aquinas that resulted in interpretations of the articles of faith that were predetermined by philosophical doctrines.[24]

Such sharp differences also had soft edges. It would be misleading to think of Dominican friars as Thomists and Franciscan friars uniformly as Scotists. The lines of division between the mendicant orders were not so hard. The teaching of Scotus on the univocity of being (see Chapter 54) was sharply criticized, or at least received in a guarded way, by such fellow Franciscan friars as Richard of Conington, Robert Cowton, Peter Auriol, Nicholas of Lyra, and Ockham. Scotus's teaching on common natures (see Chapter 47) was also criticized by fellow Franciscans such as Auriol and Ockham, who claimed instead that all that the human mind knows is the individual. After the 1320s, distinctive schools of thought were marked by their absence in the two English universities;[25] the ascendancy of the Franciscans and Dominicans had begun to weaken.

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[22] Cited in Gordon Leff, *Bradwardine and the Pelagians: A Study of his "De Causa Dei" and its Opponents* (Cambridge: Cambridge University Press, 1957) p. 14.

[23] See Henri Denifle and Émile Chatelain (eds.) *Chartularium Universitatis Parisiensis* (Paris: Delalain, 1889–97) II: n. 838. (See also Chapter 8.)

[24] Peter of Ailly, *Consistorio per eundem contra M. Joannem de Montesano*, in C. Duplessis d'Argentré (ed.) *Collectio judiciorum de novis erroribus* (Paris: apud A. Cailleau, 1728–36) I. 2: 69–74.

[25] Courtenay, *Schools and Scholars*, pp. 190–2.

Ockham's nominalism did not establish firm roots even in Franciscan soil in the fourteenth century. It was influential insofar as it led many to question whether cognition requires species to act as intermediaries between a knowing subject and a known object, but Ockham's theory of knowledge, like Scotus's views on being, was largely rejected in England by such scholars as Walter Chatton and Adam Wodeham, both Franciscans, and by Robert Holcot, a Dominican. Ockham left no school: thirteenth-century views favoring cognition through species proved tenacious in his century, and nominalism enjoyed no triumph.

Furthermore, the divisions between realists and nominalists (see Chapters 47–8) cut across the distinctions between the various religious orders. The *via antiqua* was adopted by followers of Albert and Aquinas, whereas the *via moderna* was adopted by, among others, the majority of scholars in the University of Cologne in the fifteenth century. The "new" or "modern" way was associated with nominalism, and Ockham was its standard bearer, but realists tended to be associated with Scotus as well as with Aquinas.

In the fifteenth century each *via* could be followed in different ways: at Pavia, for example, there was one chair of theology for a Dominican follower of Thomas Aquinas and another for a Franciscan follower of Scotus, who was also regarded as a realist. There was also a widespread Thomist revival: in some Dominican convents, the *Summa theologiae* of Aquinas replaced Lombard's *Sentences* as the basis of teaching theology. Lorenzo Valla, no friend of scholasticism as such, nor a friar, celebrated the feast of St. Thomas by pronouncing in the church of Santa Sabina in Rome an *Encomium Sancti Thomae de Aquino*, published in 1457: Thomas, he proclaimed, was one of the authorities in the Christian tradition of theology that included Augustine and Anselm. The young Martin Luther, on the other hand, who entered the order of Augustinian friars (or hermits) at Erfurt in 1505, attended the University of Wittenberg in 1508, where he at first accepted a theology of justification derived from the nominalists.

6

PLATONISM

JAN A. AERTSEN

In 1939 Raymond Klibansky published a programmatic essay entitled *The Continuity of the Platonic Tradition during the Middle Ages*, in which he presented a new project: the *Corpus Platonicum Medii Aevi*, meant as a counterpart of the *Aristoteles Latinus*. The term "continuity" in the title of the essay had a polemical intent: the principal aim of the planned collection of texts was, as it is stated in the Preface, "to reveal a neglected link" in the history of thought. In the study of medieval philosophy there existed a strong tendency to regard this period as an era dominated by Aristotelianism; it was not until the Renaissance that Plato would have been rediscovered.[1] Against this prejudice Klibansky's essay pointed to the continuity of the Platonic tradition throughout the Middle Ages. Medieval Platonism originated from two sources, a *direct* tradition, based on translations of Plato's own works, and an *indirect* one through the intermediary of authors who transmitted essential doctrines of Platonism in their own accounts.[2] This chapter will be focusing on the Latin Plato – a clear restriction, because, as Klibansky stresses, a full understanding of the role of Platonism in the Middle Ages has to take the Arabic tradition into account.[3]

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[1] How strong this tendency still is was shown by *The Cambridge History of Later Medieval Philosophy* (N. Kretzmann *et al.* [eds.] [Cambridge: Cambridge University Press, 1982]), which has a section on "Aristotle in the Middle Ages" (pp. 45–98), but which completely ignores medieval Platonism.

[2] Raymond Klibansky, *The Continuity of the Platonic Tradition during the Middle Ages. Outlines of a Corpus Platonicum Medii Aevi* (London: Warburg Institute, 1939). Fifty years after Klibansky's essay, Carlos Steel took stock of the study of Platonism in the Middle Ages in his article "Plato Latinus (1939–1989)," in J. Hamesse and M. Fattori (eds.) *Rencontres de cultures dans la philosophie médiévale: traductions et traducteurs de l'Antiquité tardive au XIVe siècle* (Louvain-la-Neuve: Publication de l'Institut d'études médiévales, 1990) 301–16.

[3] There does not exist a comprehensive study on Plato's reception in Arabic thought. A classical survey of Plato Arabus remains Franz Rosenthal, "On the Knowledge of Plato's Philosophy in the Islamic World," *Islamic Culture* 14 (1940) 387–422, plus addenda in *Islamic Culture* 15 (1941) 396–8 (reprinted in Rosenthal, *Greek Philosophy in the Arab World* [Aldershot: Ashgate, 1990]). For the Arabic–Latin transmission of Plato, see Dag Hasse, "Plato arabico-latinus: Philosophy – Wisdom Literature – Occult Sciences," in S. Gersh and M. J. F. M. Hoenen (eds.) *The Platonic Tradition in the Middle Ages: A Doxographic Approach* (Berlin: De Gruyter 2002) 31–65.

PLATO LATINUS

Boethius, one of the "founders of the Middle Ages," saw it as his mission to make the treasures of philosophy accessible to the West. He tried to realize Cicero's exhortation to transfer philosophy from the Greek to the Latin world and formulated to that end an ambitious program: he wanted to translate the complete works of Plato and Aristotle into Latin and to show the fundamental accordance between the two philosophers by commentaries on their works.[4] But Boethius could only realize a fraction of this project, namely, translations of and commentaries on Aristotle's logical works. During the entire Middle Ages the direct knowledge of Plato remained rather restricted. In contrast to the Arabic-speaking world, the Latin West had no access, for instance, to the *Republic* and the *Laws*. Given the limited number of Latin texts available, the *Plato Latinus* cannot be seen as a real counterpart of the *Aristoteles Latinus*.

Up until the end of the fifteenth century, only four dialogues were translated into Latin: (i) the *Meno*, translated by Henry Aristippus in the twelfth century; (ii) the *Phaedo*, by the same translator; (iii) the *Parmenides* in the partial thirteenth-century translation of William of Moerbeke (note that the Latin *Parmenides* is not a translation of the dialogue, but a reconstruction on the basis of the lemmata, found in the commentary of Proclus, which ends with the first hypothesis); and (iv) the *Timaeus* in the partial translation – only the first part (17a–53b) was known – and commentary of Calcidius (fourth century).[5]

Among these works, only the *Timaeus* exerted a real influence on medieval philosophy, as the large number of extant manuscripts confirms. Platonism in the Middle Ages coincides to a large extent with the history of this dialogue. The *Timaeus* clearly exemplifies the continuity of the Platonic tradition from late antiquity to the Renaissance.[6] The principal medieval commentaries on this writing were composed by masters of the school of Chartres in the twelfth century, Bernard of Chartres and William of Conches. It was in the twelfth century that the Platonic influence reached its peak; Plato was called the *maximus philosophorum* (Abaelard) and the *princeps philosophorum* (John of Salisbury).

The study of the *Timaeus* in the twelfth century provided the materials for developing a rational account of the physical world, that is, for a natural science

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[4] Boethius formulates his program in his second commentary on the *De interpretatione* (ed. Meiser, II: 79). He refers to Cicero's exhortation in his commentary on Cicero's *Topics* (*Patr. Lat.* 64: 1152b).

[5] All published by the Warburg Institute in the series *Plato Latinus*, under Klibansky's general editorship.

[6] See Thomas Leinkauf and Carlos Steel (eds.) *Platons* Timaios *als Grundtext der Kosmologie in Spätantike, Mittelalter und Renaissance* (Leuven: Leuven University Press, 2005). See in particular in this volume the paper by Andreas Speer, "*Lectio physica*: Anmerkungen zur *Timaios*-Rezeption im Mittelalter," 213–34.

and cosmology. In contrast to the symbolic interpretation of the world in the early Middle Ages, which tended to reduce phenomena to a direct manifestation of the divine will, the dialogue's main task is to explain natural phenomena by reducing them to their ultimate natural causes, in accordance with Plato's search for the "legitimate cause and reason" (*Timaeus* 28a). Another Platonic feature of natural science in the twelfth century is the fundamental role of mathematics in the account of the order of sensible things. The commentaries in the school of Chartres establish the conformity of the philosophical teachings of the *Timaeus* on the origin and structure of the universe with the biblical narrative on the creation of the world in Genesis. Plato's divine Craftsman or Demiurge (*Opifex*), who constructed this world, was identified with the biblical creator.[7]

The Platonic science of nature was supplanted by Aristotle's physics in the thirteenth century. The turn from Plato to Aristotle, who became "The Philosopher" in this century, is one of the most remarkable developments in medieval philosophy. The change cannot be understood merely as the result of external factors, such as the texts becoming available in translation. The essential reason must rather be sought in a fundamental reorientation in intellectual life toward a new model of scientific rationality, which was better met by Aristotelianism.[8]

PROCLUS LATINUS

The information medieval thinkers had on Plato's philosophy was much more comprehensive than one would possibly expect on the basis of the few translations in the *Plato Latinus*. This fact can be accounted for by the indirect tradition, which was the most important source for the knowledge of Platonism in the Middle Ages. An example of this transmission is Boethius, who was not able to realize his translation project, but whose main work, *The Consolation of Philosophy*, impressively expressed the Platonic ideal of philosophy. Besides Boethius, the great exponents of Latin Platonism were Augustine (especially through his reports of Platonism in *The City of God*) and Macrobius in his commentary on the "Dream of Scipio" (*Somnium Scipionis*).[9] An important channel of Platonic doctrines from the Greek tradition was the *Corpus dionysiacum*. Thomas Aquinas observes that its author, who claims to be the Dionysius (the Areopagite) mentioned in the Acts of the Apostles (17:34), follows "the Platonic way of thought,"

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[7] See Tulio Gregory, "The Platonic Inheritance," in P. Dronke (ed.) *A History of Twelfth-Century Western Philosophy* (Cambridge: Cambridge University Press, 1988) 54–80.

[8] George Wieland, "Plato or Aristotle: A Real Alternative in Medieval Philosophy?," in J. Wippel (ed.) *Studies in Medieval Philosophy* (Washington: Catholic University of America Press, 1987) 63–83.

[9] See the rich documentation in Stephen Gersh, *Middle Platonism and Neoplatonism: The Latin Tradition* (Notre Dame, IN: University of Notre Dame Press, 1986).

and modern scholarship has established Dionysius's dependency on the thought of Proclus (d. 485).[10] The various channels transmitted Platonic doctrines with accents of their own, so that one could speak of medieval "Platonisms" in the plural, by distinguishing a strand going back to Augustine and another deriving from pseudo-Dionysius.[11]

From the end of the thirteenth century an immediate knowledge of Proclus, the philosopher who gave Platonism a systematic form, was possible through the Latin translation of some of his works. The most important text is the *Elementatio theologica*, the translation of which William of Moerbeke completed in 1268. We want to focus on the *Proclus Latinus*, since this translation had several effects on medieval philosophy.

First, it modified the thirteenth-century view of Aristotelianism. Thanks to the translation of Proclus, Thomas Aquinas discovered the Platonic character and the true paternity of the anonymous *Liber de causis*. This "Book of the Causes" was part of the curriculum in the arts faculty in Paris and was regarded as the necessary completion of Aristotle's *Metaphysics*. But in the prologue to his commentary (*ca.* 1271–2), Aquinas points out for the first time that "this book is an excerpt from the *Elementatio theologica* of Proclus."

Second, the Latin translation of Proclus made it possible to note certain differences between Plato's teaching and Proclus's Neoplatonism – a recognition that is quite exceptional in the Middle Ages. This insight was expressed by Henry Bate of Malines, who composed at the end of the thirteenth century a monumental encyclopedia *Speculum divinorum et quorundam naturalium*. Part XI of it is devoted to the "Platonic philosophy," in which he quotes nearly the entire text of Proclus's *Elementatio*. Henry observes that, following Plato, Platonists like Proclus distinguish many modes of participation. But he notices that he has never found in the "books of Plato that have been transmitted to us hitherto" any such complex theory. He refers to passages in the *Timaeus*, the *Meno*, and the *Phaedo*, and concludes his survey of Platonic texts with the observation: "Perhaps there is more to be found about participation in the *Parmenides* of Plato, a book that is not yet generally known among us; that is what I heard a short time ago from the translator of that book, who promised to send it to me, but his death prevented it" (XI.12, ed. Boese, pp. 42–4). The death to which reference is

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[10] See Aquinas, *Quaest. de malo* (ed. Leonine vol. XXIII) 1.2c, and H. D. Saffrey, "Nouveau liens objectifs entre le pseudo-Denys et Proclus," in *Recherches sur le Néoplatonisme après Plotin* (Paris: Vrin, 1990) 227–48.

[11] For the expression "Platonisms" in the plural, see M.-D. Chenu, *La théologie au douzième siècle* (Paris: Vrin, 1966) pp. 108–41. See also Josef Koch, "Augustinischer und Dionysischer Neuplatonismus und das Mittelalter," in W. Beierwaltes (ed.) *Platonismus in der Philosophie des Mittelalters* (Darmstadt: Wissenschaftliche Buchgesellschaft, 1969) 317–42.

made is that of the famous translator William of Moerbeke in 1286. Henry is obviously frustrated by his limited access to authentic Platonic texts. The dream of a complete translation of Plato's works was not realized until Marsilio Ficino's efforts during the Renaissance (1484).

Third, a remarkable manifestation of the superiority of Platonism over and against Aristotelianism is to be found in the voluminous commentary on the *Elementatio theologica* of Proclus, which was written by Berthold of Moosburg, Eckhart's successor as head of the *studium generale* of the Dominicans in Cologne, sometime between 1327 and his death in 1361.[12] This work – the only commentary on Proclus known from the Middle Ages – shows the vitality of the Platonic tradition after the reception of Aristotle, for, as we shall see, the commentator fully identifies himself with the philosophical project he is commenting upon.

A feature of Berthold's *Expositio* is that it does not make any attempt to harmonize Platonism and Aristotelianism according to the program formulated by Boethius of a fundamental "concordance" between the two protagonists of ancient philosophy: *Plato et Aristoteles . . . non concordant*. In the *praeambulum* of his Commentary, Berthold opposes "Platonic science," which is concerned with the divine things, to "the Peripatetic metaphysics," which deals with being insofar as it is being. He argues that the Platonic position is superior to the Aristotelian *habitus* of metaphysical wisdom and is therefore called a "superwisdom" (*supersapientia*), since it deals not only with the principles of being, but also with principles that are above being (*super entia*), such as the first good. The commentator clearly identifies himself with this more eminent position by speaking of "our (*nostra*) superwisdom" (praeamb. C, ed. Pagnoni-Sturlese *et al.*, I: 65–6, 68).

Berthold's criticism of Aristotle's ontological conception of metaphysics is specified in the commentary itself, which is carefully constructed: it discusses first what is presupposed (*suppositum*) by Proclus's propositions, and explains then the meaning of the *propositum* itself. In this analysis, Berthold appeals again and again to the different philosophical positions of "Plato" and "Aristotle." A telling example is his account of the *suppositum* of the eleventh proposition ("All beings proceed from a single first cause"), in which he observes that Aristotle and Plato held different views of being, the one, and the good.

Typical of Aristotle's position is the transcendental way of thought, which is characterized by three claims. (i) He posits some *communia*, which he calls *transcendentia*, because they surpass the single categories and "run through all of them." Among these transcendentals are *being*, *one*, *good*, *true*, *thing*, and *what* (*quid*) or *something* (*aliquid*). They are the same in reference and convertible with

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[12] On Berthold, see Alain de Libera, *Introduction à la mystique rhénane d'Albert le Grand à Maître Eckhart* (Paris: OEIL, 1984) pp. 317–442.

each other, but conceptually different. (ii) Among the common notions, *being* is first. It is the most formal of all concepts, by which each thing is distinguished from nothing or non-being. The most remarkable feature of Berthold's account is the conclusion that (iii) the transcendentals do not have extramental reality. This idea seems to be the consequence of the kind of generalness that applies to *being*. The commonness of *being* is a commonness of abstraction, realized by the intellect, which effects universality in things. "Hence *ens* does not have being in natural reality, but only in the soul" (prop. 11A, I: 185–6).

Berthold contrasts Plato's view of being and good with Aristotle's teaching. Plato denies all three elements of the Aristotelian position, claiming that (i) there is no convertibility between *being* and *good*; (ii) *being* is not the first among the *communia*; and (iii) *being* and *good*, taken in their generalness, also exist in reality. The last difference is decisive and can be accounted for by the kind of universality on which Plato bases his position. He does not understand the generalness of being and good in the sense of a "logical" or "predicative" universality, according to which the more universal something is, the more potential it is. He takes their generalness rather in the sense of a "theological" universality or a universality of "separation," according to which the more universal something is, the more actual or active it is. The consequence of the Platonic view is that *being* and *good* are really and conceptually distinct from one another, since the good, as the most universal cause of things, is prior, more universal, and more absolute than being. Berthold substantiates the primacy of the good by referring to Dionysius the Areopagite, whose *On the Divine Names* places the name 'good' before 'being' (ibid., I: 186–7).[13]

To sum up, Berthold understands Platonism and Aristotelianism as opposed structures of thought, as two competing archetypes of philosophy, which are mutually exclusive. The "Plato" and "Aristotle" of whom Berthold speaks are patently medieval transformations of the two protagonists of ancient philosophy. Berthold's "Plato" is in fact "a person with a double face": it is Proclus–Dionysius.[14] His "Aristotle" has also undergone a medieval metamorphosis, insofar as in the Greek philosopher there is certainly no *system* of the transcendentals; the development of a systematic theory was an original achievement of thirteenth-century philosophy. Berthold's commentary testifies to a Platonic reaction against the transcendental way of thought that dominated medieval philosophy after 1250.[15]

[13] See *Expositio* prop. 1A (I: 73–4), where Berthold already introduces the opposition between *universalitas praedicationis* and *universalitas separationis*, between *universale logicum* and *universale theologicum*.

[14] See de Libera, *Introduction à la mystique rhénane*, pp. 388–9.

[15] See Jan Aertsen, "Ontology and Henology in Medieval Philosophy (Thomas Aquinas, Master Eckhart and Berthold of Moosburg)," in E. Bos and P. Meyer (eds.) *On Proclus and his Influence in Medieval Philosophy* (Leiden: Brill, 1992) 120–40.

THE "PLATONIST" THOMAS AQUINAS

An author who is a telling example of the considerable indirect knowledge of Platonic thought is Aquinas. Although Plato's *Timaeus* was the only dialogue he knew, he gives evidence of a clear insight into the basic doctrines of Platonism.[16] In the twentieth-century interpretation of Aquinas's thought it was initially common to describe its distinctive character as "Christian Aristotelianism." The rediscovery of the "Platonist" Thomas began in the 1950s with two studies that recognized the fundamental importance of the Platonic concept of "participation" for Aquinas's metaphysics – a notion that Aristotle had sharply criticized. Since then several studies have shown that central elements of his conception of being are traceable to the thought of Plotinus, Proclus, and pseudo-Dionysius.[17]

Aquinas presents an evaluation of the Platonic approach in the prologue of his commentary on pseudo-Dionysius's *De divinis nominibus*. He mentions some reasons why Dionysius's writings are difficult to read. The principal difficulty is that the Areopagite employs the manner of speaking of the Platonists, a manner that has fallen into disuse among modern thinkers (*apud modernos*), that is, among those who are trained in Aristotelian conceptuality. Thomas proceeds to sketch the Platonist approach to reality that underlies their way of speaking.

The Platonists want to reduce all that is composed and material to simple and "abstract" principles (*abstracta*). "Abstract" has no cognitive meaning here, but an ontological meaning: the term means *separated from matter*. Thus the Platonists posit the existence of separate Forms of natural things: for example, Human-Being-in-itself. A concrete individual is not a human being by its essence, but by participation in that separate Human Being. This is called "human being *per se*," because it is identical with the human nature or species. The Platonists apply this "abstract" approach not only to the species of natural things but also to that which is most common, namely, *good*, *one*, and *being*. They hold that there is a first, which is the essence of goodness, of unity, and of being – a principle that we, Aquinas adds, call "God." The other things are called "good", "one" and "being" because of their derivation from the first principle. Therefore the Platonists called the first principle "the Good itself," "the Good *per se*," or "the goodness of all good things" (*In De divinis nominibus*, prologue).

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[16] See Cristina d'Ancona, "Historiographie du platonisme médiéval: le cas de saint Thomas," in S.-T. Bonino (ed.) *Saint Thomas au XXe siècle* (Paris: Éditions Saint-Paul, 1994) 198–217.

[17] See Cornelio Fabro, *Participation et causalité selon S. Thomas d'Aquin* (Louvain: Publications Universitaires, 1961); Louis-Bertrand Geiger, *La participation dans la philosophie de S. Thomas d'Aquin* (Paris: Vrin, 1942); Robert Henle, *Saint Thomas and Platonism: A Study of Plato and Platonici Texts in the Writings of Saint Thomas* (The Hague: Nijhoff, 1956); Klaus Kremer, *Die neuplatonische Seinsphilosophie und ihre Wirkung auf Thomas von Aquin* (Leiden: Brill, 1966); Wayne Hankey, "Aquinas and the Platonists," in Gersh and Hoenen, *The Platonic Tradition in the Middle Ages*, 279–324.

In the next part of the prologue, Aquinas rejects the first application of the Platonic method: there are no separate, subsisting Forms of natural things. But with regard to the first principle of things, he recognizes the legitimacy of the Platonist's reduction. In this respect their opinion is "the truest" and "in agreement with Christian faith." Therefore Dionysius called God sometimes "the Good itself," "the supergood," or "the goodness of every good" (ibid.).

Aquinas's evaluation of Platonism is mixed. As negative he assesses, like most medieval authors, its conception of the nature of things, subscribing to Aristotle's critique of the doctrine of Forms. The essence or nature of a thing is not a subsisting Form separated from it. The Platonic isomorphism between our abstract mode of knowing and the mode of being of things is a criticism that recurs again and again in Aquinas's writings. He values positively, on the other hand, the Platonic view of the relation of things to the first principle. This principle is transcendent and is the essence of goodness and being. Other things stand in a relation of participation to the first principle. Their being has been derived from the first, divine being. Thomas advances no argument for the validity of the Platonic method of reduction, but this can lie in nothing else than its application to the *maxime communia*, that is, to the transcendental notions. The Platonic approach is valid, insofar as the first principle, God, is regarded as the universal cause of things; he is the cause of what is most common. In this manner, Aquinas succeeds in showing the complementarity of the Dionysian–Platonic approach and the Aristotelian way of thought.

QUAESTIO DE IDEIS

Through all ages the doctrine of the Ideas has been seen as the core of Platonism. In the Middle Ages, there was with respect to this doctrine also a direct and an indirect tradition. The Latin translation of the *Timaeus* provided an immediate access to Plato's teaching; an important secondary source was Augustine's short treatise *Quaestio de ideis*. Without knowledge of the Ideas, he states, nobody can be wise (*sapiens*). Augustine takes the Ideas to be the primordial forms, the permanent *rationes* of things, which themselves are not formed and therefore are eternally present in the divine mind. What is subject to coming-to-be and to passing-away, that is, the whole sensible world, is formed according to the Ideas. For Augustine it is evident that the exemplar according to which everything is created is not something outside the divine mind. Such an opinion would be a "sacrilege" (*De diversis quaest. 83*, q. 46).[18]

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[18] See Martin Grabmann, "Des heiligen Augustinus Quaestio De ideis (*De diversis quaestionibus* LXXXIII, qu. 46) in ihrer inhaltlichen Bedeutung und mittelalterlichen Weiterwirkung," in *Mittelalterliches Geistesleben* (Munich: Hueber, 1936) II: 25–34.

The reception of Aristotle in the thirteenth century, however, confronted the medieval reader with a severe criticism of the doctrine of Ideas. In Books VII and XIII of his *Metaphysics*, the Philosopher argues that Plato's hypothesis of the Ideas is fully superfluous. The Ideas are necessary neither for the knowledge of things nor for their being. *Homo generat hominem*: the begetter suffices for the coming-to-be of things (VII.7, 1034a2–9). In his *Nicomachean Ethics* (I. 4), Aristotle presents a radical critique of Plato's Idea of the Good: such an Idea is theoretically impossible and practically irrelevant. These criticisms led to discussions that reflect the entire range of medieval attitudes toward Plato.

Aquinas endorses Aristotle's objections to Plato's Ideas, taken as the Forms of the natural things, which exist apart from those things. But he does not think Aristotle's criticisms apply to Augustine's version of the doctrine of Forms and accepts the necessity of the Ideas in the divine mind for our understanding of the world as creation: "Since the world was not made by chance, but by God acting by his intellect . . . there must exist in the divine mind a form to the likeness of which the world was made. And in this the notion of an Idea consists" (*Summa theol.* 1a 15.1c). When, on the one hand, Plato is rejected with the help of Aristotle, and, on the other, he is supported with the help of Augustine, it is not surprising that Ferrarius the Catalan, probably a student of Aquinas, could raise the question (*ca.* 1276) of "whether the Ideas that theologians posit in God are identical with the Platonic ideas."[19]

An example of a thinker who attempts to show, according to the program formulated by Boethius, the real concordance between Plato and Aristotle is Henry Bate. Part VII of his *Speculum* is entirely devoted to a defense of the Platonic doctrine of Ideas against the objections of Aristotle in the *Metaphysics*. There does not exist a deep opposition between the two philosophers, since the Philosopher's criticism concerns only the "surface" of Plato's language. When Aristotle, for instance, remarked that "the begetter suffices," he did not intend to deny the existence of the Ideas, but only refused to take them as entities entirely separated from the sensible substances, as some Platonists did (VII.1, ed. Steel and van de Vyver, pp. 100–2).[20]

Other authors severely criticize Aristotle's criticism of Platonism: he proves to be "the worst metaphysician."[21] According to Bonaventure, the "true"

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[19] *Quodlibet* q. 1: "Utrum idee quae theologi ponunt esse in Deo sint eedem cum ideis quae Platonici posuerunt" (Paris, Arsenal 379, ff. 225r–33v).

[20] See Carlos Steel, "Das neue Interesse für den Platonismus am Ende des 13. Jahrhunderts," in T. Kobusch and B. Mojsisch (eds.) *Platon in der abendländischen Geistesgeschichte: Neue Forschungen zum Platonismus* (Darmstadt: Wissenschaftliche Buchgesellschaft, 1997) 120–33.

[21] The expression is used by the Scotist Francis of Meyronnes (*ca.* 1320) in his discussion of Plato's doctrine of the Ideas (*Sent.* I.47.3 (ed. 1520, f. 134rbF).

metaphysician studies the exemplary cause of being. Aristotle had secluded him-
self from this center of metaphysics, because he had cursed (*exsecratur*) Plato's
Ideas. Consequently he fell into several errors: he ignored the exemplary cause
of things and denied divine providence (*Collationes in Hexaemeron* VI.2–4).

Because of a particularity in the reception of Aristotle's *Ethics*, the medieval
commentators were familiar with the commentary of a marked critic of
Aristotle. Robert Grosseteste, who first published a complete translation of
the *Nicomachean Ethics* into Latin (1246–7), at the same time translated a corpus
of Greek commentaries on this work. Part of this corpus was a commentary
on the first book composed by the eleventh-century Byzantine scholar Eustra-
tios of Nicaea, and containing a critique of Aristotle's critique that was clearly
inspired by Neoplatonism. According to Eustratios, Aristotle fundamentally
misunderstood Plato's Idea of the Good, whose commonness is not the uni-
vocal commonness of a genus but is based on the universal causality of the
Good.[22]

In his Commentary on the *Ethics* (1250), Albert the Great, when discussing
Aristotle's critique of Plato's Idea of the Good, refers to the "Commentator,"
that is, to Eustratios. He concludes that Aristotle's arguments against Plato are
only compelling when one takes the Idea of the Good as the form of a genus.
When, however, one understands, along with the Commentator, the Idea in
the sense of the exemplary cause of all good things, it is clear that Aristotle's
arguments are "useless" (*nihil valent*) (*Super Ethicam* I.6 n. 30). In this respect,
Plato, not Aristotle, has it right.

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[22] *In Ethicam Nicomacheam* I.6, in Robert Grosseteste (tr.) *The Greek Commentaries on the Nicomachean
Ethics of Aristotle* (Leiden: Brill, 1973) I: 76–7. See Kimon Giocarinis, "Eustratios of Nicaea's Defence
of the Doctrine of Ideas," in *Franciscan Studies* 24 (1964) 159–204.

7

AUGUSTINIANISM

GARETH B. MATTHEWS

St. Augustine, bishop of Hippo, was both a theologian of great influence and a philosopher of remarkable originality. He helped shape Christian orthodoxy by identifying the Christian heresies of Pelagianism, Manicheanism, and Donatism, the first two of which have special philosophical interest. Pelagianism, as captured by the maxim philosophers associate with Kant, 'Ought implies can,' stakes out a plausible limit on moral responsibility. Augustine's idea that human beings are obligated to obey the moral law despite the fact that, after the fall of Adam, they have been in a state of depravity in which they can do no good apart from the grace of God, poses a direct challenge to this plausible limit on moral responsibility (see Chapter 29). Augustine also sought to refute Manicheanism, according to which there is a cosmic principle of evil and darkness coeval with the principle of goodness and light. In responding to this attractive way of thinking about the origin of evil in the world, Augustine came up with several responses to the problem of evil, responses that directly influenced medieval discussions of the topic.

In writing no fewer than five detailed commentaries on the creation story in the biblical book of Genesis, Augustine did perhaps as much as any philosopher has done to try to make sense of the idea that God created the world out of nothing. Indeed, in the thirteenth-century debate on whether the world is eternal Augustine's view of *ex nihilo* creation became the antipode to the Aristotelian view that the world had no beginning (see Chapter 17).

This chapter focuses on several features of Augustine's philosophical thinking that prove especially important for later thought: (i) his first-person point of view, (ii) his doctrine of illumination, (iii) his ideas about the relationship between faith and reason, (iv) his argument for the existence of God, (v) his discussions of God's nature, (vi) his attempts to solve the problem of evil, (vii) his discussion of the problem of God's foreknowledge and human free will, (viii) his psychological voluntarism, and (ix) his internalism in ethics.

THE FIRST-PERSON POINT OF VIEW

Perhaps the single most striking feature of Augustine's philosophical thinking is that it often takes an explicitly first-person point of view.[1] One of his early works, *Soliloquies*, is written entirely in the first person. Augustine admits in that work to having coined the word 'soliloquies' (*soliloquia*) for use when "we are talking to ourselves alone" (II.7.14). His inner conversation partner is "Reason." Among Augustine's other works, his *Confessions*, written in the form of a prayer, is also notable for taking a first-person point of view.

Augustine seems to be the first philosopher to have thought that 'I exist' can be used to state a philosophically important truth. For him the knowledge claim that each of us can make by saying "I know that I exist" is the first and best response to the threat of global skepticism posed by the Academics: "I have no fear of the arguments of the Academics. They say, 'Suppose you are mistaken?' I reply, 'If I am mistaken, I exist.' A non-existent being cannot be mistaken; therefore I must exist, if I am mistaken" (*City of God* XI.26). Among later philosophers it is perhaps Descartes who makes the most use of the first-person point of view. Notably, Descartes, in his Second Meditation, offers 'I exist' as the foundation stone for his rational reconstruction of knowledge. But various medieval philosophers also recognize the philosophical importance of 'I exist.' Thus Gaunilo, in his reply "On Behalf of the Fool" to Anselm's ontological argument, makes use of Augustine's idea of the special status of 'I exist' to challenge Anselm. In *Proslogion* 3, Anselm had claimed that something than which nothing greater can be conceived (that is, God) cannot be conceived not to exist. The implication might seem to be that God alone cannot be conceived not to exist. Gaunilo responds:

Furthermore, I know with absolute certainty that I myself exist, but nonetheless I also know that I can fail to exist. But I understand beyond all doubt that the supreme being that exists, namely God, both exists and cannot fail to exist. Now I do not know whether I can think I do not exist even while I know with absolute certainty that I do exist. But if I can, why can I not do the same for anything else that I know with the same certainty? And if I cannot, it is not God alone who cannot be thought not to exist.

(tr. Williams, pp. 125–6)

The dilemma Gaunilo here offers Anselm is clever. Augustine's response to skepticism (namely, I cannot be mistaken in thinking that I exist) seems to leave us no alternative but to agree that God is not the only being who cannot be conceived not to exist.

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[1] See Gareth Matthews, *Thought's Ego in Augustine and Descartes* (Ithaca, NY: Cornell University Press, 1992) and *Augustine* (Oxford: Blackwell, 2005) ch. 1.

The "Flying Man" argument of Avicenna also seems remarkably Augustinian in making one's knowledge of one's own existence philosophically basic. According to this argument one is to think of oneself as suspended in a void without any sensory or other somatic input: even in this circumstance, Avicenna claims, one would know that one exists (see Chapter 23).[2] Avicenna then goes on to draw conclusions about the nature of the immaterial soul in the fashion of Book 10 of Augustine's *On the Trinity*. Avicenna's thought, however, could not have been inspired by his having actually read Augustine.[3] Thus we have here a parallel development in philosophy that underlines the significance of Augustine's thinking without being derived from it.

ILLUMINATION

Augustine's doctrine of illumination first appears in his early dialogue, *The Teacher* (*De magistro*):

Indeed, when we are concerned with things that we perceive with the mind, that is, by the intellect and reason, they are said to be things that we see immediately in that inner light of truth by which he himself who is called the inner man is illuminated, and from which he takes pleasure (12.40).

In this dialogue Augustine tries to convince us that, to learn what a head covering is, we must first use our senses. But, as we know from earlier examples in the dialogue, seeing one, or even several, instances of such a thing will not guarantee that we have grasped exactly what a head covering is. It is only by the inner light of reason and truth that we will come to know that.

The idea that knowing eternal truths is a result of an inner illumination is Platonic in origin. But, whereas Plato in *Republic* VI says that this illumination is an "offspring" of the Form of the Good (508b), Augustine makes God its source. Thus when, in *De Trinitate* XII, Augustine rejects the Platonic idea of "recollecting" the Forms from the soul's previous life, he adds this:

But we ought rather to believe that the nature of the intellectual mind is so formed as to see those things which, according to the disposition of the Creator, are subjoined to intelligible things in the natural order, in a sort of incorporeal light of its own kind, as the eye of the flesh sees the things that lie about it in this corporeal light.

(XII.15.24)

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[2] For a full discussion of Avicenna's argument, see Deborah L. Black, "Avicenna on Self-Awareness and Knowing that One Knows," in S. Rahman (ed.) *Arabic Logic, Epistemology and Metaphysics*, (Dordrecht: Springer, 2008) 63–87.

[3] Richard Sorabji suggests a common Neoplatonic source: see *Self: Ancient and Modern Insights about Individuality, Life, and Death* (Chicago: University of Chicago Press, 2006) ch. 12.

The generally recognized rival to divine illumination is the Aristotelian idea of abstraction, which struggles with the question of how we ever learn to abstract red, crimson, round, and ball – as well as an indefinitely large number of other universals – from our sample red ball. Augustinian illumination was supposed by generations of medieval philosophers, all the way through the thirteenth century, to supply a better answer (see Chapters 26–7). However, Augustinians in the thirteenth century also began to modify and adapt Augustine's teaching on illumination. Thus, for example, Bonaventure, although he speaks of illumination as a heavenly light "that gives infallibility to the knower," also allows for degrees of illumination (*Quaest. de scientia Christi* q. 4), and Henry of Ghent gradually develops a significantly Aristotelianized version of the idea of divine illumination.[4]

FAITH AND REASON

In the dialogue *On Free Choice of the Will* Augustine asks his interlocutor, Evodius, whether he is certain that God exists. Evodius replies that he accepts God's existence by faith, not by reason. Augustine then asks Evodius what he would say to an atheist. Evodius responds that he would appeal to the evidence of Scripture. When Augustine asks what room is left for philosophical investigation, Evodius replies that we want to know and understand what we believe (II.2.5.16); Augustine compliments Evodius and quotes Isaiah 7:9, which in his "Old Latin" translation reads: *Nisi credideritis, non intellegetis* ("Unless you have believed, you will not understand").

The idea that we should believe in order to understand is an Augustinian theme. In *Tractate* 29 on the Gospel of John, for example, Augustine writes: "If you have not understood, I say, 'Believe!' For understanding is the reward of faith." He adds: "Therefore, do not seek to understand that you may believe, but believe that you may understand." This ordering of faith and reason has profound implications for natural theology. So, for instance, even an argument for the existence of God should not be undertaken from a position of presumed neutrality. An opposed view is taken by Thomas Aquinas when he distinguishes between the articles of faith and the preambles to the articles. According to Aquinas, the preambles, including the conclusion that God exists, can be known simply by natural reason, without any presumption of faith (*Summa theol.* 1a 2.2 ad 1).

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[4] The complex and intricate details of how Augustinian and Aristotelian epistemologies competed with each other and transformed each other in the thirteenth century are well presented in Steven Marrone, *The Light of Thy Countenance: Science and Knowledge of God in the Thirteenth Century* (Leiden: Brill, 2001).

Anselm is most explicit in accepting Augustine's admonition to believe that we may understand. He first thought of calling his *Proslogion*, in which he argues for the existence and nature of God, "Faith in Search of Understanding" (*Fides quaerens intellectum*). It remained a motto for that work (see Chapter 51).

GOD'S EXISTENCE

Augustine is hardly the first philosopher to have proposed an argument for the existence of God. Moreover, he himself suggests more than one line of reasoning for the conclusion that God exists. But his most systematic attempt to prove the existence of God is to be found in Book II of *On Free Choice of the Will*. The argument there is not one that has become particularly important in the philosophy of religion. But it is remarkable in being, like Anselm's much more impressive and influential argument in his *Proslogion*, a purely a priori bit of reasoning. Like Anselm's argument, it begins with a definition of 'God,' which we can render this way:

x is God $=_{df}$ x is superior to the human mind (or rational soul) and nothing is superior to x.

Augustine then goes on to argue that Truth is superior to the human mind. So either Truth itself is God, or something superior to Truth is God. In any case, God exists.

The idea that Truth is superior to the human mind may strike us as rather strange. Augustine's notion seems to be that Truth sits in judgment on our thinking and what passes judgment on x must be superior to x. The idea that Truth might be God is also rather peculiar. For Augustine, however, the saying of Jesus, "I am the way, and the truth, and the light" (John 14:6), mitigates against its oddity.

THE NATURE OF GOD

The definition of 'God' above marks supremacy as the prime feature of God's nature. Augustine elaborates on this point in *On Christian Doctrine*: "For when the one God of gods is thought of, even by those who recognize, invoke, and worship other gods, either in Heaven or on earth, he is thought of in such a way that the thought seeks to attain something than which there is nothing better or more sublime" (I.7.7).

Modern readers may be reminded of Anselm's formula for God: "something than which nothing greater can be conceived." Even closer to Anselm is this characterization of God in the *Confessions*: "Nor could there have been or be

any soul capable of conceiving that which is better than you, who are the supreme and highest good" (VII.4.6).

Augustine, like Anselm after him, uses his general characterization of God to pick out the divine attributes. Thus the next sentence in the *Confessions* after the one above is this: "Since it is most true and certain that the incorruptible is superior to the corruptible . . . had it been the case that you [O God] are not incorruptible I could in thought have attained something better than my God." On this basis Augustine claims that God is incorruptible, all-powerful and all-knowing.

Although Augustine's treatment of the various divine attributes sets the stage for later medieval discussions of God's nature (see Chapter 54), it is, first and foremost, Augustine's idea of divine simplicity that most influenced later philosophical theologians. Here is the classical statement of that doctrine in Augustine's work, *De Trinitate*:

But God is not great by a greatness that is not that which he himself is – as if God were, so to speak, a partaker in greatness when he is great. For in that case greatness would be greater than God. But there cannot be anything greater than God. Therefore, he is great by that greatness that is identical with himself . . . Let the same also be said of the goodness, the eternity, the omnipotence of God, in fact of all those attributes that can be predicated of God.

(V.10.11)

The doctrine of divine simplicity is important in much of medieval philosophical theology. Thus Aquinas, for example, says that perfections cannot be predicated univocally of God and creatures because, whereas perfections in human beings are distinct from each other and from that being's essence, such is not the case with God, who is perfectly simple (*Summa theol.* 1a 13.5). The doctrine that God is perfectly simple remains a topic of discussion and controversy even today.[5]

THE PROBLEM OF EVIL

In addition to offering rational support for faith in God, Augustine also confronted the biggest threat to faith in a Being whose attributes include omnipotence and omnibenevolence, namely, the problem of evil (see Chapter 56). Indeed, the problem of evil occupied Augustine throughout most of his adult life. The obvious presence of evil in the world was part of what first attracted

[5] See, e.g., William Mann, "Divine Simplicity," *Religious Studies* 18 (1982) 451–71; Alvin Plantinga, *Does God Have a Nature?* (Milwaukee, WI: Marquette University Press, 1980); Eleonore Stump and Norman Kretzmann, "Absolute Simplicity," *Faith and Philosophy* 2 (1985) 353–91.

him to Manicheanism, with its idea of a cosmic force of evil co-equal with the cosmic force of good.

Long after Augustine had rejected Manicheanism and become a Christian, he still thought the Platonic idea, that it is matter that is evil, worth mentioning and rejecting: "Is it that the matter from which he made things was somehow evil? He gave it form and order, but did he leave in it an element that he could not transform into good? If so, why? Was he powerless to turn and transform all matter so that no evil remained, even though God is omnipotent?" (*Confessions* VII.5.7). If, however, God is perfectly good and God is the cause of everything besides himself, how could it be that God is not the cause of evil?

One of Augustine's responses to this question is to invoke the Neoplatonic thought that evil is "non-being," that is, a lack, or privation. As Augustine writes in *Enchiridion* ch. 12, "All things that exist, therefore, seeing that the Creator of them all is supremely good, are themselves good. But because they are not, like their Creator, supremely and unchangeably good, their good may be diminished and increased." Thus, in making something distinct from Himself, God made limited beings. But their limitations and their susceptibility to corruption are not anything substantial; they are limitations of something in itself good.

The idea of evil as a privation is echoed by other medieval philosophers. It appears, for example, in Anselm's *De casu diaboli* ch. 10; and Aquinas writes that "the absence of good, taken in a privative sense, is evil" (*Summa theol.* 1a 48.2). Augustine, however, sometimes expresses dissatisfaction with the privation solution to the problem of evil. Thus the continuation of *Confessions* VII.5.7 goes this way:

Or does [evil] not have any being? [But] why should we fear and avoid what has no being? If our fear is vain, it is certain that fear itself is evil, and that the heart is groundlessly disturbed and tortured. And this evil is the worse for the fact that it has no being to be afraid of. Yet we still fear.

The form of the problem of evil most discussed in recent philosophy is this: how can we consistently maintain that God is all-powerful as well as all-good and yet also admit that there is evil? This form of the problem is to be found in Augustine, too. Here is a statement of it from *Confessions* VII:

Here is God and see what God has created. God is good and is most mightily and incomparably superior to these things. But, being God, he created good creatures. See how God surrounds and fills them. Then where and whence is evil? How did it creep in? What is its root and what is its seed? Or does it not have any being?

(VII.5.7)

Perhaps Augustine's primary response to the problem in all its various forms is to say that sin, and hence evil, arises from the will, and indeed from a will that is free. An important good, he supposes, would be missing from creation if there were no free agents. Evil is thus the price of the great good of free agency: "Just as a stray horse is better than a stone which is not astray, since the stone does not have its own motion or perception, so the creature who sins of his own free will is more excellent than the creature who does not sin because he has no free will" (*On Free Choice of the Will* III.5.15.57).

In Book I of *On Free Choice of the Will* Evodius had asked why God could not have given us free will the way he gave us justice. Justice cannot be used to do unjust things. Why, Evodius had wanted to know, could God not have given us free will in such a way that we could not use it to do evil?

Evodius's question is echoed in recent philosophy by J. L. Mackie: "If God has made men such that in their free choices they sometimes prefer what is good and sometimes what is evil, why could he not have made men such that they always freely choose the good?"[6] Alvin Plantinga has argued, in response to Mackie, that it is at least logically possible that even an omnipotent being could not create free agents who never sin. In Plantinga's memorable phrase, it is logically possible that each human being with free will whom God could have created suffers from "transworld depravity."[7]

In the last book of the *City of God*, however, Augustine explains that God will, in fact, give the blessed in heaven the perfect freedom of the will that includes an inability to sin. Earthly human beings have a freedom of the will that includes the ability to sin as well as the ability not to sin. But the perfect freedom the blessed will receive in heaven includes only the ability not to sin.

Evodius's question, echoed sixteen centuries later by Mackie, now becomes more urgent. Why would God not have given Adam and all his descendants the perfect freedom Augustine says he will give the blessed in heaven? Augustine's answer in *City of God* XXII.30 is that the blessed will attain their perfect freedom only by partaking of God's own nature. Some merit would have been lost, Augustine reasons, if some human beings who could have chosen otherwise had not, with the grace of God, chosen not to sin.

GOD'S FOREKNOWLEDGE AND HUMAN FREE WILL

The chief threat to human freedom that Augustine confronts is not determinism, but rather God's foreknowledge, which suggests a kind of fatalism. Augustine

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[6] J. L. Mackie, "Evil and Omnipotence," *Mind* 64 (1955) p. 209.
[7] Alvin Plantinga, *The Nature of Necessity* (Oxford: Oxford University Press, 1974) pp. 49–53.

frames the problem of God's foreknowledge and human free will for all later Western philosophy. The problem is this: if God is truly omniscient and so foreknows everything that is going to happen, how is it possible for human agents to do anything of their own free will? Although Augustine states the problem in its most influential form, and indeed offers some of the most promising responses to it, the problem was not entirely original to him. As he himself makes clear in *City of God* V.9, he took the threat foreknowledge poses for free will from Cicero's *On Divination*. It is not, however, Cicero that subsequent philosophers have turned to in their discussions of this problem, but rather Augustine, whose *On Free Choice of the Will* offers at least three promising solutions and suggests a fourth.

Foreknowledge as a guarantee of freedom

This solution attempts to turn the problem into its own solution. We cannot will, Augustine writes, what is not in our power to will. So what we will is in our power to will, and, "since it is in our power, it is free in us" (III.3.8.33). If God foreknows everything, he foreknows that we will will certain things, that it will be in our power to do so, and that our power to will these things will be free in us. In this way God's foreknowledge guarantees our freedom. Anselm echoes this point when he insists that God can foreknow that it is without necessity that one is going to sin (*De concordia* I.1).

God's foreknowledge of his own free actions

Augustine's interlocutor, Evodius, points out that "God foresees with certainty what he will do" (III.3.6.23). Augustine then points out that the very same reasoning that leads us to suppose that God's foreknowledge threatens human freedom should lead us to conclude that it would also threaten God's freedom. But God is perfectly free. Thus, there must be something wrong with the reasoning that leads us to conclude that God's foreknowledge threatens human freedom.

God is not in time, but rather is eternal

As Evodius remarks, nothing ever happens, or comes to pass, within God (III.3.6.24). If there is no "beforehand" with God, then there is no foreknowledge either. This solution is perhaps less promising than the previous two, however, since God's knowledge from all eternity of what one will do seems no less a threat to freedom of the will than foreknowledge.

The modal solution

Augustine comes tantalizingly close to distinguishing between the necessity of the conditional ('Necessarily, if God foreknows that Adam will sin, then Adam will sin') and the necessity of the consequent ('If God foreknows that Adam will sin, then it is by necessity that Adam will sin'). Thus, for example, he writes: "Your foreknowledge that a man will sin does not of itself necessitate the sin" (III.4.9.39). But later philosophers, beginning with Boethius, make this distinction explicit. Aquinas, for example, uses the later medieval distinction between necessity *de re* and necessity *de dicto* to explain why arguments like this one are fallacious:

(1) Necessarily, if God foreknows that Adam will sin, Adam will sin.
(2) God foreknows that Adam will sin.
    Therefore,
(3) Adam will necessarily sin.
    The necessity in (1) is *de dicto*; that in (3) is *de re*. All that follows validly from (1) and (2) is
(4) Adam will sin.[8]

PSYCHOLOGICAL VOLUNTARISM

When Augustine introduces the will into Western thought, the question of how it might be related to other human faculties, in particular, the intellect, becomes a major philosophical issue. According to Augustine himself, the will has a remarkable independence, since, as he writes in the *City of God* XII.6, it has no efficient cause outside itself. Yet Augustine also seems to think that the intellect and the will are yoked together through the virtual unity of memory, understanding, and will, which, he writes, are "not three minds, but one mind" (*De Trinitate* X.11.18).

Aquinas gives the Augustinian balance between reason and will an important structure when he writes that intellect moves the will as an end and that the will moves the intellect as an agent (*Summa theol.* 1a 82.4). But Aquinas also appears to recognize cases of *intellectual determinism* when he writes that "if the will be offered an object which is good universally and from every point of view, the will tends to it of necessity, if it wills anything at all, since it cannot will the opposite" (ibid., 1a2ae 10.2c). The possibility of such intellectual determinism seems to be excluded by John Duns Scotus when he writes that "nothing other than the will is the total cause of volition in the will" (*Additiones magnae*

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[8] See Boethius, *Consolation of Philosophy* V.6; Thomas Aquinas, *Summa theol.* 1a 4.13 ad 3.

II.25.1 n. 22, ed. Wadding VI: 888).[9] Scotus thus counts as a psychological voluntarist. In this he echoes Augustine (see Chapter 30).

One difficulty with psychological voluntarism is the threat that the will, apart from the intellect, will be simply 'blind,' and so unable to make any genuine choice among the alternatives that the intellect presents to it. Scotus tries to avoid this difficulty by attributing a cognitive or rational aspect to the will. He speaks of there always being indistinct and imperfect intellections besides the entirely distinct and perfect ones. It may happen that the will takes pleasure in one of these indistinct or imperfect ones so that by taking pleasure in that particular intellection, the will "strengthens and intends it, whereas the intellection that is nilled, or in which the intellect takes no pleasure, is weakened and dismissed" (*Ordinatio* II.42.3).[10]

Augustine's solution to such problems seems to be much simpler. Even though his admonition, "If you have not understood, I say 'Believe!'" (as quoted earlier) apparently gives the will an edge over the intellect in matters of belief, his trinitarian conception of the mind as memory, understanding, and will in Book X of *De Trinitate* requires that there also be an essential unity in that psychological trinity, a unity that mirrors, even if only very imperfectly, the unity of the divine Trinity.

ETHICS

Augustine follows Ambrose in adding the four cardinal virtues of Greek antiquity – courage, temperance, wisdom (or prudence), and justice – to the Christian virtues of faith, hope, and love (or charity) that Paul recognizes in II Corinthians 13. Later medieval philosophers, such as Aquinas, followed him in accepting this list (see Chapter 36).

Perhaps Augustine's most distinctive contribution to ethics, however, arises from his commentary on this saying of Jesus: "You have heard that it was said, 'You shall not commit adultery.' But I say to you that everyone who looks at a woman lustfully has already committed adultery with her in his heart" (Matthew 5:27–8). Augustine's discussion of this verse in his *Commentary on the Lord's Sermon on the Mount* puts forward what William Mann has called, quite

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[9] The views of Scotus on human freedom are much more complex than this single quotation might suggest. See, e.g., William Frank, "Duns Scotus on Autonomous Freedom and Divine Co-Causality," *Medieval Philosophy and Theology* 2 (1992) 142–64.

[10] For translation see, *Duns Scotus on the Will and Morality*, tr. A. Wolter (Washington: Catholic University of America Press, 1986) pp. 173–5.

appropriately, Augustine's "inner-life ethics."[11] Central to Augustine's thinking here is his account of what he takes to be a complete sin. According to this account, the components of a complete sin are these: (1) suggestion, (2) pleasure, and (3) consent. Here is the way he explains these components:

The suggestion is made either through the memory or through the bodily senses – when we are seeing or hearing or smelling or tasting or touching something. If we take pleasure in the enjoyment of this [suggestion], it must be repressed if the pleasure is sinful. For example, if the craving of the palate is aroused at the sight of viands while we are observing the law of fasting, it arises only through pleasure; we do not consent to it, we repress by the law of reason, to which it is subject. But, if consent is given, then a sin is fully committed in the heart, and it is known to God, even though it be not made known to men, through the medium of any act.

Therefore, as I was beginning to say, these three successive stages may be likened to the action that is described in Genesis [3]. For the suggestion, as well as a kind of persuasion, is made as though by a serpent; the pleasure is in the carnal desire, as though in Eve; and the consent is in the reason, as though in the man [Adam]. And if a man passes through these three stages, he is, as it were, cast out from Paradise; that is to say, he is expelled from the most blessed light of justice and is cast unto death. And this is most strictly in accordance with justice, for persuasion is not compulsion.

<div align="right">(I.12.24; tr. Kavanagh, pp. 53–4)</div>

Augustine is not explicit about whether the first component by itself, that is, the mere suggestion of doing something illicit, counts as a sin, or whether it is only the first component plus the second, that is, pleasure in the thought of performing an illicit act, that counts as a sin. What we do learn is that nothing is a *complete* sin without all three components. But the most startling claim Augustine makes is that these three components together constitute a complete sin, whether or not the action suggested and consented to is ever carried out (see also Chapter 37).

The influence of Augustine's inner-life ethics on later thought is nowhere more direct or profound than it is on the ethics of Peter Abaelard. According to Abaelard's *Ethics, or Know Thyself*, one sins by showing contempt for the creator, God. And one does that by consenting to violate one of God's laws. Abaelard gives the example, which he takes from Augustine's *On Free Choice of the Will* I.4.25, of a servant who kills his master, not because the servant actually wants to kill his master, but because he wants to save his own life and believes that to do so he must kill the master. Abaelard rejects what we might call a Principle of the Transitivity of Desire (that is, one wants what one believes to be the

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[11] "Inner-Life Ethics," in G. Matthews (ed.) *The Augustinian Tradition* (Berkeley: University of California Press, 1998) 140–65.

consequences of what one wants), but accepts a Principle of the Transitivity of Consent (that is, one consents to what one believes to be the consequences of what one consents to). Thus, Abaelard can allow that the servant does not want to kill his master, even though the servant believes that killing his master will be a consequence of his defending himself. Nevertheless, on Abaelard's view, the servant indirectly consents to the killing, and, since killing violates God's command not to kill, he sins. As William Mann points out, although Abaelard makes use of Augustine's example from his *On Free Choice of the Will*, he does not follow Augustine's analysis of the case; instead, he uses and develops Augustine's account of sin in his *Commentary on the Sermon on the Mount* to handle the case of the servant's homicide.[12]

   Abaelard insists that success in carrying out a sinful act that one has consented to adds nothing to one's sin. At the same time, he also thinks that an action that would otherwise be sinful is not a sin if it is done under compulsion or through ignorance. It is the consent that is the sin. In all this he is remarkably Augustinian.[13]

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[12] William Mann, "Ethics," in J. Brower and K. Guilfoy (eds.) *The Cambridge Companion to Abelard* (Cambridge: Cambridge University Press, 2004) 279–304.

[13] For a fuller account of Augustine's ethics, see Bonnie Kent, "Augustine's Ethics," in N. Kretzmann and E. Stump (eds.) *The Cambridge Companion to Augustine* (Cambridge: Cambridge University Press, 2001) 205–33.

CENSORSHIP*

FRANÇOIS–XAVIER PUTALLAZ

INTRODUCTION

A great many medieval thinkers were involved in the process of censure, either as defendants or as members of an inquiry commission. Often nothing came of the process beyond suspicions or denunciations; other times judicial procedures were initiated; sometimes these led to drastic disciplinary measures.

It is very tempting to judge the Middle Ages in light of these practices of information control and to draw the conclusion that freedom of thought was systematically restricted. Another temptation – more subtle – is to reconstruct the history of ideas from these condemnations. Judicial procedures usually entailed a list being made of very short, allegedly erroneous propositions taken from the work of one or more authors: 13 condemned by the bishop of Paris in 1270, and 219 more in 1277; 22 against Peter of John Olivi in 1283; 51 against William of Ockham in 1326, to mention but a few. It is thus very appealing to any historian to cling to these collections of articles in order to reconstruct, by antithesis, an author's thought, thereby dispensing with the detailed reading of an all too vast body of work. This is one of the reasons why contemporary historiography has focused on the phenomenon of medieval censorship, uncritically adopting the hermeneutical principle that has been widely accepted since Ernest Renan, according to whom "every condemnation in ecclesiastical history rests on a professed error."[1] Reality, however, is more complex.

In order to understand this, it is useful to begin with the famous condemnation of 1277, whose long list of condemned theses targets the arts masters at the University of Paris, but without mentioning any specific names. The range of philosophical theses touched on in this condemnation is vast, and united only by the fact that every thesis is said to stand in real or apparent opposition to the Christian truth. This is arguably the most important censure of the Middle

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* Translated from the French by Amandine Catala.
[1] Ernest Renan, *Averroès et l'averroïsme* (Paris: Calmann-Lévy, 1949), p. 211. Cf. Alain de Libera, *Penser au Moyen Âge* (Paris: Seuil, 1991).

Ages, and indeed is paradigmatic of the great medieval condemnations. Still, it is important to underscore the great diversity of realities that fall under the general label of 'censure,' and to take care that presenting doctrinal history through examples in this way should not interfere with the broadening of the cultural field – including, for instance, a deeper understanding of the pressures connected with Islam that were exerted on various thinkers. In this chapter, however, such broadening will be limited to Latin examples in the thirteenth and fourteenth centuries, while making no claims about the modes of censorship experienced outside the Latin West.[2]

THE CONDEMNATION OF MARCH 7, 1277

Reactions against the censure

In 1308, John of Pouilly testified: "That is what I wanted to say in the hall of the bishop, but I could not do so, because I was prevented from it." In those solemn circumstances, a venerable master stood up, reducing John to silence. The latter remembers: "Oh, Blessed God! I saw there was no one in Paris to dare hold this conception that I deem true; God knows the reason why, and I know it too."[3] It is the noxious effect of the 1277 condemnations that John of Pouilly is complaining of, thirty years after the fact. Moving back closer to the event, we find the testimony of James of Douai, master in the faculty of arts at Paris *ca.* 1275. He too attacks the pernicious influence of the censors: "Though philosophy is the great perfection of man, philosophers are oppressed nowadays . . . And the fact that philosophers are thus oppressed keeps many from practicing philosophy."[4]

  The most famous reaction comes from Godfrey of Fontaines, master of theology in Paris. Long after the death of Stephen Tempier, the censor–bishop responsible for the 1277 condemnations, Godfrey is asked in a quodlibetal question in 1291 "Whether a master in theology should contradict an article of the

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[2] Among Islamic authors, al-Ghazālī notoriously concluded his *Incoherence of the Incoherence* by issuing a *fatwā* decreeing that anyone who teaches one of these three claims – that the world is eternal; that God knows only universals; and that the soul does not return to its body after death – is an apostate from Islam, deserving of death (see Chapter 50). See Frank Griffel, *Apostasie und Toleranz im Islam: die Entwicklung zu al-Gazālīs Urteil gegen die Philosophen und die Reaktionen der Philosophen* (Leiden: Brill, 2000). Averroes is perhaps the best-known case where such pressure was brought to bear, although he was ultimately rehabilitated after a period in exile. See, e.g., Roger Arnaldez, *Averroes: A Rationalist in Islam,* tr. D. Streight (Notre Dame, IN: University of Notre Dame Press, 2000).

[3] John of Pouilly, *Quodlibet* II.13 (Paris Bibl. Nat. lat. 15372, f. 58r).

[4] See the discussion in Luca Bianchi, *Censure et liberté intellectuelle à l'Université de Paris (XIIIᵉ–XIVᵉ siècles)* (Paris: Les Belles Lettres, 1999) pp. 73–6.

bishop if he believes that the opposite proposition is true" (*Quodlibet* VII.18 [ed. *Phil. Belges* III: 402]). Either the master in theology is going to lie, which is detrimental to his mission, or he incurs a sentence of excommunication. Godfrey's response is nuanced: if the thesis in question touches upon salvation, the master should say what he believes, whatever the threat; if, on the contrary, the issue is ancillary, the master should of course not teach error, but it is still safer to refrain from telling the truth. If, however, the thesis in question can be proved, then the bishop's condemnation "constitutes an error, because it prevents the search for and knowledge of the truth." In this case, one should insist that the new prelate should "lift the condemnation and excommunication," whose continuation:

is harmful to the perfection of intellect, since people cannot freely search for the truths that are a great perfection for their intellect. And, moreover, what a scandal for non-believers as well as many of the faithful are the ignorance and simplicity of these prelates who hold as erroneous and contrary to faith that which is incompatible neither with faith nor with morals!

<div align="right">(ibid., III: 403–4)</div>

According to Godfrey, the articles condemned in 1277 hinder scientific progress, create scandal in the academic world, and are harmful to the irreplaceable doctrine of Thomas Aquinas.

Aquinas and the condemnation

It was indeed common to think that Thomas's views were a target of the censure. Thomas did not belong to the faculty of arts – which was the only faculty implicated by the condemnation – but several contemporaries suggest that he was, nevertheless, a target. Indeed, the Dominican John of Naples felt compelled to write a defense of Thomas, showing that the incriminated articles do not touch his teachings. And on February 14, 1325, two years after the canonization of St. Thomas, the bishop of Paris, Stephen Bourret, lifted the sentence of excommunication weighing on those articles that touched (or seemed to touch) upon Thomas's thought.[5]

Some modern historians have also thought that Thomas was the main target of the condemnation, under the cover of a criticism of the arts masters. Fernand van Steenberghen, however, notes that Thomas's two most controversial

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[5] The symbolic date of March 7, the third anniversary of the death of Thomas of Aquinas, bolsters this interpretation. John of Naples's defense is in the form of a question "Whether it can be permitted in Paris to teach the teachings of Brother Thomas with respect to all of his conclusions" (ed. Jellouschek).

theses – the unicity of substantial form and the impossibility of matter's existing without form (see Chapter 46) – are not listed in the 219 Parisian propositions; the authority of Thomas, he argues, would have protected him from attack.[6] Robert Wielockx agrees that Thomas was not a target of the 1277 condemnation, but for a different reason: he believes that, besides the great condemnation targeting the arts masters, Bishop Tempier initiated two other actions, one against Giles of Rome (which interrupted Giles's career) and another against Thomas, which did not go through because of the influence of certain cardinals at the papal court.[7] More recently, however, Johannes Thijssen has shown the low probability of a distinct trial against Thomas. Thijssen's thesis is that Tempier initiated a total of two actions: one, anonymous, on March 7, and another against Giles of Rome, which included certain Thomistic doctrines.[8]

Between these two divergent interpretations – one treating Aquinas as an explicit target of the condemnation of 1277, the other not regarding him as a target of that particular condemnation at all – there remains the view that has been common since the ground-breaking works of Roland Hissette: namely, that Thomas was indirectly targeted by the censure, which contains some fifty-three articles that one might see as having a basis in Thomas's work.[9] John Wippel, who characterizes as purely verbal the distinction between a "direct" or "indirect" target, thinks that the censors had to have known whether a certain thesis was also held by Thomas.[10]

One reason for this diversity of opinions is that it is not always easy to distinguish the views of different authors in the condemned propositions. A recent study has shown that the author principally targeted by thirty such articles, the arts master Siger of Brabant, was using a method that would nowadays be

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[6] Fernand van Steenberghen, *Maître Siger de Brabant* (Louvain: Publications universitaires, 1977) pp. 147–8.

[7] See Giles of Rome, *Apologia*, ed. Wielockx, pp. 75–120, 215–24; Robert Wielockx, "Autour du procès de Thomas d'Aquin," in A. Zimmermann (ed.) *Thomas von Aquin: Werk und Wirkung im Licht neuerer Forschungen* (Berlin: De Gruyter, 1988) 413–38.

[8] Johannes M. M. H. Thijssen, *Censure and Heresy at the University of Paris, 1200–1400* (Philadelphia: University of Pennsylvania Press, 1998) pp. 54–6. According to Thijssen, the second action did not result in a formal condemnation of Giles, precisely because of the resemblance of his doctrines to those of Thomas. Rather than face a condemnation for heresy, Giles suffered a mere disciplinary measure, which would be lifted in 1285, when he was finally accepted as a master of theology.

[9] Roland Hissette, *Enquête sur les 219 articles condamnés à Paris le 7 mars 1277* (Louvain: Publications universitaires, 1977). Jürgen Miethke, "Papst, Ortsbischof und Universität in den Pariser Theologenprozessen des 13. Jahrhunderts," in A. Zimmermann (ed.) *Die Auseinandersetzungen an der Pariser Universität im XIII. Jahrhundert* (Berlin: De Gruyter, 1976) 52–94.

[10] John P. Wippel, "Thomas Aquinas and the Condemnation of 1277," *The Modern Schoolman* 72 (1995) 233–72. See also John P. Wippel, "The Parisian Condemnations of 1270 and 1277," in J. Gracia and T. Noone (eds.) *A Companion to Philosophy in the Middle Ages* (Oxford: Blackwell, 2003) 65–73.

characterized as plagiarism: Siger uses phrases taken directly from Thomas's texts, silent borrowings that touch upon central themes, but whose original meaning Siger transforms by giving them an exclusively philosophical flavor.[11] For example, article 98 (198) condemns the idea that "in the order of efficient causes, the secondary cause exercises an activity that it does not receive from the first cause." This has to do with a doctrine that Siger defends explicitly in Question 2 of his *Quaestiones super librum de causis*, where he denies all direct intervention in the universe on the part of the first cause, on the grounds that this would undermine secondary causes. To explain this, however, he appeals to an argument that Aquinas had developed in his theology of the Eucharist in order to explain the separability of accidents during the miracle of transubstantiation. Thus one sees how Thomas's texts are transformed.

The history of the censure

How did such measures arise? In Paris, the emergence of Aristotelianism had inspired distrust for many years, and there was no lack of prohibitions. In 1210, Archbishop Peter of Corbeil convened a council that, upon threat of excommunication, banned the teaching in Paris of Aristotle's books on natural philosophy.[12] On April 13, 1231, Pope Gregory IX reiterated these bans, demanding that the speculative books of Aristotle not be used before being examined by a commission responsible for expurgating them of any "suspicion of heresy."[13] These measures did not, however, hinder the rise of Aristotelianism. Although the University of Paris had forbidden the teaching of Aristotle's main books since 1210, their efforts had no effect in the long run. On March 19, 1255, the Paris faculty of arts officially included the full range of Aristotle's works in the catalogue of texts required for teaching.

Within this same faculty, however, various philosophers adopted theses that seemed to stand in direct opposition to the Christian faith. According to Bonaventure in 1267, the main such errors concerned the eternity of the world, the unicity of intellect within all human beings, and astral determinism – all theses that are linked to Averroes's interpretation of Aristotle, and that, he says, make the cross of Christ vain. According to Bonaventure, it is not philosophy

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[11] Ruedi Imbach, "Notule sur le commentaire du 'Liber de causis' de Siger de Brabant et ses rapports avec Thomas d'Aquin," *Freiburger Zeitschrift für Philosophie und Theologie* 43 (1996) 304–23; François-Xavier Putallaz and Ruedi Imbach, *Profession, philosophe: Siger de Brabant* (Paris: Cerf, 1997) pp. 162–8.

[12] Henri Denifle and Émile Chatelain (eds.) *Chartularium Universitatis Parisiensis* (Paris: Delalain, 1889–97) I: 70.

[13] Ibid., I: 138.

itself that is at issue, but rather the pretension of those who want to turn it into a self-sufficient type of knowledge, "instead of seeing in it a way toward other types of knowledge." When philosophy is viewed as self-sufficient, "the one who wants to remain in it falls into darkness" (*Collationes de septem donis Spiritus sancti* IV.2 [*Opera* V: 476]).

In 1270, the response to suspect theses propagated in the faculty of arts took various forms. Aquinas's *De unitate intellectus* refutes in detail Siger of Brabant's Averroistic theory of the intellect (see Chapter 23). Others respond more brutally, not by engaging their opponents philosophically but by compiling diffuse lists of errors. The *De erroribus philosophorum*, traditionally ascribed to Giles of Rome, denounces various theses of Aristotle, Averroes, Avicenna, al-Ghazālī, and al-Kindī. On December 10, Tempier, already the bishop of Paris, condemns thirteen propositions and threatens to excommunicate anyone who supports them. The condemned theses are all said to stand in real or apparent opposition to the Christian truth.

It does not seem that this measure had the effect hoped for, however, for the bishop reiterated his condemnation on March 7, 1277 – now with 219 propositions. The prologue describes several trustworthy persons as having informed the ecclesial authority of certain masters of arts who have exceeded the limits of their faculty by encroaching upon theology. These masters have allegedly dared to spread "abhorrent errors" in their schools without refuting them, claiming that there are things that are "true according to philosophy, but not according to the catholic faith, as if there were two opposite truths."[14]

This condemnation has been the object of many studies,[15] but some novel elements deserve to be underlined.[16] First, it is an anonymous condemnation: the persons being targeted are not designated. This is unusual: normally, a list of censored propositions is imputed to named suspects, who are ordered to appear. Moreover, it seems that cases not resolved by the competent authority (for example, the university) would ordinarily be transferred to the court of the bishop; yet here it is the bishop who is initiating the process. To understand this, we should pay more attention to the role played by the pontifical legate Simon de Brion, the future Pope Martin IV: might it have been under his influence that the various censures were brought forward? Shortly after his death in 1285, the turmoil over these censures ends. It is also likely that the January 18, 1277 letter of Pope John XXI – concerned with the propagation of certain ideas at

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[14] Ed. David Piché, *La condamnation parisienne de 1277* (Paris: Vrin, 1999) p. 75.

[15] In addition to the works cited already, see Kurt Flasch, *Aufklärung im Mittelalter? Die Verurteilung von 1277* (Mainz: Dieterich, 1989); J. Aertsen *et al.* (eds.) *Nach der Verurteilung von 1277: Philosophie und Theologie an der Universität von Paris im letzten Viertel des 13. Jahrhunderts* (Berlin: De Gruyter, 2001).

[16] Thijssen, *Censure*, pp. 43–8.

the faculty of arts – played a role in the origin of the condemnation. This is especially so since a few months later a new letter from the pope, dated April 18, 1277, demands an investigation focused on the theologians. Finally, it is possible that the three arts masters, including Siger of Brabant, who were cited to appear before the Inquisitor Simon du Val on November 23, 1276, were acquitted at that appearance. This would explain why their names could not appear in the condemnation of 1277, since the procedures mandated that no one could be prosecuted twice for the same crime.

A TYPOLOGY OF CENSORSHIP

Forms of condemnation

It is useful to begin with 1277, since it is the most famous condemnation, but it certainly was not the only one; as mentioned above, there were many, and of many different forms. Here I will set aside censorship within Jewish and Islamic circles, and within the Christian context I will deal only briefly with extra-academic condemnations, including those that were prior to the creation of the universities. Of these, Abaelard's trial is particularly well known. Around 1138, William of St. Thierry was offended by his reading of Abaelard's *Theology*, and alerted Bernard of Clairvaux: "Once more Peter Abaelard teaches new things, and his books go beyond the seas and the Alps . . . He produces in the divine Scripture what he used to produce in dialectic, inventions that are his own."[17] Abaelard is rebuked both for his originality and for his rationalistic tendencies with respect to church dogma. Bernard of Clairvaux subsequently writes a *Treatise against Various Erroneous Articles of Peter Abaelard*. As for Abaelard, he is asked to defend his doctrine personally, against Bernard, at the Council of Sens, on June 2 and 3, 1140. But the debate is biased, the Abaelardian theses having been judged beforehand. Unable or unwilling to explain himself, Abaelard turns to Rome. This backfires, for in July 1240 a pontifical decree condemns him and reduces him to silence, as though he were a heretic. At this point Abaelard gives up the fight and asks Peter the Venerable of Cluny for shelter.

Can we say that Abaelard was "censored"? What is the meaning of this term in the Middle Ages? First, there exist ecclesiastical censures, which deprive people of certain spiritual goods: a "suspension" deprives clerics of one or more of their roles as priest; an "interdict" applies to a whole community; and "excommunication" expels one from the community of believers. Such

[17] Jean Jolivet, *Abélard, ou la philosophie dans le langage* (Paris: Seghers, 1969) pp. 35–6.

ecclesiastical censures concern the church, and should not be confused with academic censures, even though the latter can lead to the former. On the academic side, there is the "prohibition," which is a ban often limited to a place and a time, forbidding the propagation of certain ideas viewed as heterodox, dangerous, or objects of scandal. The "condemnation," valid by contrast in any place and for an unlimited period of time, targets theses that explicitly contradict the teaching of the church. But these distinctions are not rigid, and there are exceptions, such as the "condemnation" of 1277, which seems to have applied only in Paris.

In general, although here too the vocabulary is not strictly fixed in the Middle Ages, one can distinguish between error and heresy. There is an *error* when a thesis is false or erroneous – that is, when a thesis is *intellectually* incompatible with orthodoxy, whatever the subjective intention of the author might be. By contrast, *heresy* entails both the explicit will to defend a thesis contradicting the faith, and persistence in one's error.[18] Some heresies consisted in popular movements that were hostile to ecclesiastical authority, such as the Cathar heresy; in the academic field, on the other hand, the term 'heresy' was often used with a certain semantic plasticity, in order to stigmatize an assertion thought to be erroneous. For example, in his *Summa quaestionum super sententias*, the Franciscan Peter of John Olivi had the imprudence to characterize as "heretical" a common thesis, defended even by Aquinas.[19] An inquiry commission would later rebuke Olivi for this use of the term.[20] His remark was indeed likely to offend, since by calling this thesis "heretical" he was attacking not only the Dominican Aquinas, but also William de la Mare – a Franciscan himself, regent master in theology in Paris around 1274–5, and author of the *Correctorium fratris Thomae* (see below). William had become one of the most important characters of the Franciscan order, so to proclaim loud and clear that one of his theses was heretical was to look for trouble. At the same time, this shows how unprincipled the usage of this term sometimes was.

The vocabulary of censure was itself not univocal. In the strict sense, as noted above, a *heretic* (*hereticus*) is a person who voluntarily persists in a position contrary to the faith (*pertinax*). The word 'heresy,' however, has come to designate a proposition that stands in direct opposition to revealed truth or established

[18] On the term "heresy," see W. Lourdaux and D. Verhelst, *The Concept of Heresy in the Middle Ages (11th–13th c.)* (Leuven: Leuven University Press, 1976).

[19] *Summa* I.6 (Vat. Borgh. 322, f. 174vb; Borgh. 328, f. 159rb). See Putallaz, "Les idées divines dans la censure: le cas Olivi (1248–1298)," *Revue thomiste* 103 (2003) 411–34.

[20] Ed. G. Fussenegger, "'Littera septem sigillorum' contra doctrinam Petri Ioannis Olivi edita," *Archivum Franciscanum Historicum* 47 (1954) n. 5, p. 51; cf. Damascus Laberge (ed.) "Responsio quam fecit Petrus [Ioannis] ad litteram magistrorum, praesentatam sibi in Avinione," *Archivum Franciscanum Historicum* 28 (1935) n. 4, p. 127.

dogma.[21] If a proposition contradicts a positive theological conclusion that follows from a premise of the faith, then it is declared *erroneous* (*erronea*), as opposed to a *false* proposition, which merely contradicts the truth. The characterization *temerarious* (*temeraria*) applies to any opinion standing in opposition to common opinion, without being founded on robust reasons. Finally, a thesis is *dangerous to the faith* (*fide periculosa*) if it leads to noxious consequences that are likely to contradict a truth of the faith. In his 1285 response to the Parisian commission that was censoring him, Olivi refers to the panoply of judgments that this commission has attached to some excerpts from his work: "Some passages were judged false, others heretical, others dubious in the context of the faith, others dangerous for our order, others filled with ignorance, others established in a presumptuous manner, others were simply crossed off or marked with an X."[22]

Objects of censorship

Luca Bianchi[23] has presented a useful typology of censorship, showing that condemnations could target different objects:

BOOKS Either they were burnt, as were the notebooks of David of Dinant (1210), the *Periphyseon* of John Scottus Eriugena (1225), the *De periculis* of William of St. Amour (1259), and the *Exigit ordo* and the *Letters to Bernard* of Nicholas of Autrecourt (1346); or they were prohibited, as were alchemy books and the *Defensor pacis* of Marsilius of Padua (1327); or their use in education was limited – by making lists of condemned articles, for example, or by erasing certain passages. Books were purged, cut, censored. Finally, there was a form of advanced censorship, which amounted to a kind of preventive control, in the manner of today's *nihil obstat*.

IDEAS Most often, it was the freedom of teaching that was limited, by prohibiting certain courses on delicate matters: this was the case in 1210 for Aristotle's natural philosophy, for example, and in 1339 for the views of Ockham. Alternatively, there were doctrinal censures, where certain ideas were reproved by characterizing the errors as dangerous, temerarious, or contrary to faith: the condemnation of 1277 is of that type. Finally, in some cases a certain doctrine was imposed upon an author: this was the case for Durand of St. Pourçain, who was forced to rewrite his *Sentences* commentary.

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[21] See Thijssen, *Censure*, pp. 2–5.   [22] Laberge, "Responsio," p. 132.
[23] See Bianchi, *Censure*, pp. 21–52.

Persons At times sanctions − such as prison or exile − were taken against individual persons, as in the case of William of St. Amour in 1259. Pressure was also exerted, and sometimes intimidation. There were, to be sure, few very harsh punishments, but the sentences inflicted varied greatly. Despite the common stereotype, extreme measures against heretics were no more common during the Middle Ages than during antiquity (think of Socrates) or the Renaissance (think of Giordano Bruno). To be sure, there were a few notable cases − as when the corpse of Amalric of Bene was exhumed and some of his partisans were condemned to be burned alive − but these were exceptions.[24] Most sentences consisted in a public retraction of the suspect theses.

Procedures As Thijssen has shown,[25] disciplinary procedures could consist of five steps:

1. Most cases were initiated by *denunciations* to a competent authority (see below). These authorities thus had a reactive function: they rarely took the initiative themselves. Denunciations almost always stemmed from suspect teachings or the dissemination of ideas thought to be dangerous.
2. Once a denunciation has been made, the competent authority begins a *preliminary inquiry*, which consists, on the one hand, of judging whether the incriminated ideas are erroneous and, on the other hand, of identifying the suspects who are propagating them. Witnesses are called to testify, documents are seized, personal notes are demanded, and, as in Olivi's case, a *rotulus* is made that consists of verbatim quotations from the suspect's works. A list is thus crafted of articles deemed heretical, false, erroneous, or simply presumptuous.
3. The suspect is then *summoned to appear*. If he does not, he is judged by default and often excommunicated, since − not having appeared − he is persisting in error. The accused might defend themselves with a panoply of tactics. They might maintain, for instance, that they never defended the propositions they are accused of holding, that the propositions were taken out of context to alter their meaning, or (as Durand of St. Pourçain claimed) that the suspect propositions were private opinions, never publicly taught.[26] Alternatively, they might insist that they merely "recited" the opinions − that is, stated them without endorsing them − or they might complain that no one has ever asked them what they really meant, as when Olivi asserts that his intentions were different.[27] Finally, like Meister Eckhart, they might simply object that there is nothing they can do if readers are unable to understand.[28]

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[24] See Denifle and Chatelain, *Chartularium*, I: 70–2. On the thirteenth century as compared to other eras, see Yves Dossat, *Les crises de l'inquisition toulousaine au XIIIe siècle, 1233–1273* (Bordeaux: Bière, 1959) pp. 266–7.

[25] See Thijssen, *Censure*, pp. 19–39.   [26] Ibid., p. 29.

[27] Laberge, "Responsio," p. 133. Olivi also distinguishes between reciting and endorsing (ibid., pp. 128–30).

[28] Eckhart of Hochheim, *Eine lateinische Rechtfertigungsschrift des Meister Eckhart*, ed. A. Daniels (Münster: Aschendorff, 1923) p. 65. See Heinrich Stirnimann and Ruedi Imbach, *Eckhardus*

4. There then ensues *the sentence*, and its enactment. Pure and simple acquittal was very rare; at a minimum, the suspect was compelled to retract the erroneous theses publicly. Many authors anticipated such judgments with a *revocatio conditionalis* as follows: "If I have said something false against faith or morals, I revoke it in advance in obedience to the church." After the sentence follows the condemnation and the subsequent handing over to the secular authorities if the defendant has not retracted, as in the case of William of St. Amour, who was exiled from Paris in 1259.[29]

5. Finally, it was always possible to *appeal* to the pontifical court, but such a process was costly in terms of both time and money.

The authorities who could be asked to initiate such a procedure were numerous. It could, for example, be the head of a religious order, as it was in the case of Olivi (who had to sign the *Letter of Seven Seals*, which ordered him to retract a series of twenty-two theses taken from his works).[30] Olivi, in fact, complained about the procedure. Other disciplinary authorities included members of academic institutions, most often the chancellor, surrounded by a group of masters in theology. If the case were not settled at that level, the file could then be transferred to the bishop or the pope, the only two courts having the power of jurisdiction in "criminal" cases – that is, cases leading to a penalty such as excommunication.

Places other than Paris also saw censures, as in the case of the following three censures that specifically targeted Aquinas. First, on March 18, 1277, the Dominican archbishop of Canterbury, Robert Kilwardby, condemned thirty propositions, including several concerning Aquinas's doctrine of the unity of substantial forms. Second, representing a different sort of censure, the Franciscan William de la Mare crafted a *Correctorium* of Aquinas's work. This was adopted by the general chapter of the Franciscans meeting in Strasbourg in May 1282, which authorized "the diffusion of the *Summa* only under the condition that it be put in the hands of particularly intelligent readers, and that it be presented with the declarations of brother William de la Mare." Finally, on October 29, 1284, the new archbishop of Canterbury, the Franciscan John Pecham, gave a speech before the members of the University of Oxford that reprised the theses condemned seven years earlier. As reported, "he even specifically insisted on one of these doctrines that in his opinion was particularly noxious, the one that claims there is in a human being but one form."[31]

Theutonicus, homo doctus et sanctus: Nachweise und Berichte zum Prozeß gegen Meister Eckhart (Freiburg: Universitätsverlag, 1992).

[29] See Michel-Marie Dufeil, *Guillaume de Saint-Amour et la polémique universitaire parisienne, 1250–1259* (Paris: Picard, 1972).

[30] Ed. Fussenegger, "Littera"; see David Burr, *The Persecution of Peter Olivi* (Philadelphia, PA: American Philosophical Society, 1976).

[31] See François-Xavier Putallaz, *Figures franciscaines, de Bonaventure à Duns Scot* (Paris: Cerf, 1997) pp. 43–6.

ANTI-OCKHAMIST MEASURES

As we have seen, there were a great number and variety of condemnations. Although the focus has been on the 1277 condemnation, we could have singled out the famous condemnation of Autrecourt (1346),[32] or that of John of Monzon, who fled in 1387 after the faculty of theology prohibited the support of fourteen of his theses on the Immaculate Conception, and the censure commission appointed by Clement VII forbade any relations with him, even drinking and eating.[33] Before closing, however, we will consider still another – one that is particularly important for the history of medieval philosophy.

In his *Dialogus*, crafted after he had fled the pontifical court of Avignon to take refuge in Munich with the Emperor Ludwig of Bavaria, William of Ockham presents a set of conclusions in favor of the freedom of thought. According to him, no one should condemn ideas, at least not those philosophical ideas that do not touch upon theology and that have never been formally condemned, "because in these areas, everyone should be free to say freely whatever he pleases" (I.2.24).[34]

This is not the first time one finds an author claiming the right to a freedom of thought that he himself was deprived of. Ockham was the object of a lengthy trial in Avignon, and his teachings were eventually the target of decrees issued by the faculty of arts in Paris between 1339 and 1341.

During the trial (on May 12, 1325), when King Edward II writes to John Lutterell in Avignon, asking him to come back to England as soon as possible, Pope John XXII himself responds to the king, asking him to excuse the prolonged stay of Lutterell at the court, for he has to remain longer in order to "pursue before the pope his own cause against a pestilent doctrine."[35] It is clear that this *doctrina pestifera* is Ockham's. But why does it deserve such a harsh critique? If one looks at the list of the fifty-one articles ultimately incriminated by the inquiry commission, one notices that it has undergone a modification since the first inventory made by Lutterell himself. It is not the philosophical theses that are targeted. Indeed, these theses are only of secondary importance;

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[32] Zénon Kaluza, *Nicolas d'Autrecourt. Ami de la vérité* (Paris: Académie des inscriptions et belles-lettres, 1995).

[33] Denifle and Chatelain, *Chartularium*, III: 511. See Peter of Ailly, *Tractatus ex parte universitatis studii Parisiensi pro causa fidei, contra quemdam fratrem Johannem de Motesono Ordinis Praedicatorum*, in C. Duplessis d'Argentré (ed.) *Collectio judiciorum de novis erroribus* (Paris: apud A. Cailleau, 1728–36) I.2: 87–8.

[34] Ockham here explicitly targets Robert Kilwardby, but also indirectly the condemnations by Stephen Tempier, and the one that affected Olivi. This second part seems to be a later text inserted in the *Dialogus* after 1331–2.

[35] Ed. A. Pelzer, "Les 51 articles de Guillaume Occam censurés, en Avignon, en 1326," *Revue d'histoire ecclésiastique* 18 (1922) 246–7.

the commission did not think that the heart of Ockhamism lay in its philo-sophical structure.[36] What was at stake lay elsewhere – in Ockham's impact on theology, especially what might be called his "Pelagianism." Ockham thought that the habit of charity is not indispensable for a meritorious act, and that God can embrace any good act of the human will produced by our natural capacities alone. It is essentially because of the Pelagian naturalism entailed by Ockham's thought that his teachings are characterized as "pestilent."

The trial went on and on. Ockham stayed at the Franciscan convent of Avi-gnon from 1324 until he fled on May 26, 1328, when, with the general minister of the Franciscan Order Michael of Cesena and three other coreligionists, he joined the worst enemy of the papacy, the Emperor Ludwig of Bavaria. Ockham died at the court of the emperor, most likely in 1347.

The year before, in a letter of May 20, 1346, the new pope, Clement VI, reminded the members of the faculty of arts in Paris to avoid novelties and to stick with Aristotle's text and with ancient commentators. What are these novelties? To be sure, they included Ockhamism. As of 1341, members of the faculty had to formally swear "to observe the statutes issued by the faculty of arts against the science of Ockham and by no means to support that science and any like it, but only the science of Aristotle and his commentator Averroes, and other ancient commentators and interpreters of Aristotle, except in cases that run counter to the faith."[37] Members of the English nation at the university also had to abjure the activities of the *secta occamica*.[38] These two oaths echoed two statutes issued in 1339 and 1340 that were aimed, if not directly against Ockham's ideas, then at least against their propagation.

A great deal of patient effort has been spent untangling this complicated case.[39] The statute of September 25, 1339, for instance, sought to bring a halt to the normal practice of various members of the faculty by prohibiting the public or private teaching of Ockham's doctrines, but this was probably not a doctrinal condemnation; most likely, it was only to prevent the use of texts from Ockham that had not previously been examined by a commission of experts and that were, thus, not clear of all suspicion. This statute cleverly appears to

[36] See Josef Koch, "Neue Aktenstücke zu dem gegen Wilhelm Ockham in Avignon geführten Prozess," in *Kleine Schriften* (Rome: Edizioni di Storia e Letteratura, 1973) II: 347.

[37] Denifle and Chatelain, *Chartularium*, II: 680.

[38] Zénon Kaluza, "Les sciences et leurs langages: Note sur le statut du 29 décembre 1340 et le prétendu statut perdu contre Ockham," in L. Bianchi (ed.) *Filosfia e teologia nel trecento. Studi in ricordo di Eugenio Randi* (Louvain-la-Neuve: Fédération internationale des instituts d'études médiévales, 1994) 197–258, esp. pp. 216–77.

[39] Besides Thijssen, Kaluza, and Bianchi, one can mention the numerous studies by William Courtenay, including "The Registers of the University of Paris and the Statutes Against the 'Scientia Occamica'," *Vivarium* 29 (1991) 13–49.

be a purely administrative act: extra-curricular courses are forbidden (that is, public lectures on Ockham's works or private courses on his logic), as well as citation of his work.

As for the real reasons behind this measure, they still remain unclear today. Most likely, in addition to the philosophical problem of Ockham's reduction of Aristotle's ten categories to two (see Chapter 48), and his critique of the notion of time, it is Ockham's interpretive method – his hermeneutics – that does not respect the traditional interpretations of the authorities. Does terminist logic, applied to Aristotle's texts, not make the intention of the reader prevail over the intention of the author? It is thus possible that this new hermeneutics was viewed as threatening the survival of Aristotelianism, which until then was seen as a body of scientific doctrines, with nothing metaphorical about it.

This perceived threat is also one of the possible motivations behind the second statute, issued on December 29, 1340, which is one of the real puzzles of Ockham studies. Without citing any specific propositions, this statute sets the tone for curricular lectures on the Aristotelian corpus. Since it is the "errors of the Ockhamists" that are targeted here, the statute can be read as warning against a series of themes originating in Ockham, as manifested in arts masters who were making a reprehensible use of them. As Luca Bianchi puts it, they are probably "protocols of philosophical exegesis founded on just those forms of propositional analysis that were prohibited by the faculty of arts."[40]

The first article, for example, which may have originated with John Buridan, forbids arts masters to "declare absolutely false a well known proposition of an author whose work they are teaching, if they deem that this author, by establishing this proposition, meant something true." In other words, it is forbidden to stick to the letter of a text and to reject it on that basis, without paying attention to the author's intention. Ironically, the censors were prohibiting precisely that which had been the leitmotiv of prior censures: namely, to take the author's actual intention into account to a lesser degree than the objective force of a thesis as interpreted in concrete terms.

The 1340 statute is probably the second phase of the same crisis that brought about the 1339 statute. At a time when, for political reasons, Ockham was at best unwelcome, the arts masters decided to get rid of his growing influence, which threatened to disrupt a long tradition of philosophical interpretation of Aristotle. The task of policing educational practices meant that, in order to defend the traditional Aristotle, the Ockhamist reading of it had to be proscribed.[41] However, with Ockhamism still spreading in Paris and throughout the rest of Europe during the second half of the fourteenth century, these

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[40] Bianchi, *Censure*, p. 147.   [41] For this interpretation, see ibid, pp. 157–62.

prohibitions do not seem to have exerted a decisive influence on the movement of ideas, except perhaps insofar as Ockham became viewed not as an Aristotelian but as an alternative to Aristotelianism, all the way into the seventeenth century. This is by no means the least influence that such a censure might have.

CONCLUSION

This last observation raises the difficult problem of what influence condemnations have. Neither a secondary phenomenon nor a central event in themselves (Duhem), the condemnations perhaps bear witness to the irrepressible emergence of the autonomy of thought (Flasch, de Libera, Bianchi).[42] At the same time, it is also possible that medieval thinkers (in contrast to our own modern sensibilities) never interpreted freedom of thought as if it were a goal in itself; and that instead they saw free discussion as always in service to the truth. This balance, of course, was unstable. The historian who wants to avoid projecting onto the Middle Ages our strong convictions regarding freedom of thought will find an interesting articulation of this mindset in Godfrey of Fontaines:

Sometimes a question is so unsettled, its truth being uncertain, that one can have different opinions about it, without danger for faith or morals, and without rashly defending one or the other side. In that case, to impose an obligation or restraint that compels people to steadfastly stick to one of these opinions is to impede knowledge of the truth. For it is thanks to the diverse opinions that cultured and learned men hold concerning such questions, through various discussions taking one side or the other so as to find the truth, that that truth is best discovered . . . Consequently, to impede this method of investigating and establishing the truth is evidently to impede the progress of those who study and seek to know the truth.

(*Quodlibet* XII.5 [ed. *Phil. Belges* V: 101])

Here, freedom of debate is the indispensable prerequisite for the search for truth; nevertheless, the truth itself retains priority.

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[42] See Pierre Duhem, *Le système du monde: histoire des doctrines cosmologiques de Platon à Copernic* (Paris: Hermann, 1913–59); Flasch, *Aufklärung im Mittelalter?*; de Libera, *Penser au Moyen Âge*; Bianchi, *Censure.*

9

MODERNITY

ROGER ARIEW

There is very little content to the concept of modernity except as a term of contrast with antiquity and the Middle Ages, and what is signified as "modern" changes, depending upon the specific contrast one wishes to make. Historians often use the term to designate nineteenth-century phenomena such as the industrial revolution, the rise of capitalism, the institution of representative democracy, and urbanization. In philosophy, "modernity" is usually taken to refer to the period that discarded medieval or scholastic philosophy, beginning roughly in the sixteenth century and encompassing such intellectual movements as the Renaissance, the Reformation, and the Counter-Reformation, continuing in the seventeenth with what is called the Age of Reason (early modern philosophy), and culminating in the eighteenth with the Enlightenment.

THE *COGITO* AND MODERNITY

Of course, all of the terms above are imprecise and disputed, but few will disagree that the work of René Descartes typifies early modern philosophy and sets the agenda for the philosophers who came after him. So the question of philosophical modernity – namely, how best to describe the reasons for the rise of modern philosophy and the waning of scholasticism – may be resolved by determining the break one wishes to depict between the work of Descartes and that of the scholastics.

Numerous elements in Descartes's *Meditations* have been considered modern and contrasted with scholastic philosophy; these have included his use of radical skepticism and his appeal to the first-person perspective – that is, the *cogito* – as the first principle of knowledge. These modern elements are sometimes contrasted with what is thought to be a residual scholastic element in Descartes's thought, namely his use of a causal principle to prove the existence of God.[1] Of

[1] See, for example, Martial Gueroult, *Descartes' Philosophy Interpreted According to the Order of Reasons*, tr. R. Ariew *et al.* (Minneapolis: University of Minnesota Press, 1984–85) II: 255–60, as against I: 128–33.

course, many moderns such as Baruch Spinoza were neither skeptical nor committed to the first-person perspective; in addition, these elements were not unknown in medieval philosophy. Nicholas of Autrecourt, for example, took skepticism most seriously (see Chapter 28). Thomas Hobbes, in his Objections to the *Meditations*, even chided Descartes for bringing up stale old skeptical arguments: "since it is commonly observed that there is a difficulty in distinguishing waking from dreams, I would have preferred the author, so very distinguished in the realm of new speculations, not to have published these old things" (ed. Adam and Tannery, VII: 171).[2] Moreover, the *cogito* can be found before Descartes and, in particular, in several of Augustine's works. When Descartes published the *Discourse on Method* (1637) containing his argument, a number of people informed him of this fact. Descartes responded to one of them as follows:

You have obliged me by bringing to my notice the passage of St. Augustine that bears some relation to my "I think, therefore I am." Today I have been to read it at the library of this city, and I do indeed find that he makes use of it to prove the certainty of our being, and then to show that there is in us a kind of image of the Trinity, in that we exist, we know that we exist, and we love this being and the knowledge that is in us. On the other hand, I use it to make it known that this *I* who is thinking is an *immaterial substance*, and has nothing in it that is corporeal. These are two very different things. It is something so simple and natural in itself to infer that one exists from the fact that one is doubting, that it might have come from anybody's pen. But I am still glad to have come together with St. Augustine, if only to shut the mouths of the little minds who have tried to quibble with that principle.

(ed. Adam and Tannery, III: 247–8)

Descartes here sketches what he thinks is a significant contrast between his *cogito* and Augustine's. According to Descartes, he, unlike Augustine, uses the *cogito* to argue that the self is an immaterial substance and that thus it is immortal.[3]

One can dispute whether Descartes's claimed contrast with Augustine is accurate.[4] There are, however, other precedents for Descartes's *cogito* that seem

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[2] Some propose that a major shift occurred in skepticism itself, between ancient and modern skepticism, a thesis that was even held during the seventeenth century (see Pierre Bayle's *Dictionary*, "Pyrrho," note B). But again, not all moderns took skepticism seriously. Even Cartesians in the seventeenth century rejected, reinterpreted, or severely limited Descartes's method of doubt; see Tad Schmaltz, *Radical Cartesians* (Cambridge: Cambridge University Press, 2002); or Roger Ariew "Cartesian Empiricism," *Revue roumaine de philosophie* 50 (2006) 71–85. In any case, when one sees a genuinely skeptical modern philosopher such as David Hume, his skepticism is Ciceronian and practiced in opposition to Descartes's "antecedent" skepticism. See Hume's *Enquiry conc. Human Understanding*, sec. 12, "Of the Academical or Sceptical Philosophy."

[3] For the intellectual relations between Augustine and Descartes, see Stephen Menn, *Descartes and Augustine* (Cambridge: Cambridge University Press, 1998), and Gareth Matthews, *Thought's Ego in Augustine and Descartes* (Ithaca, NY: Cornell University Press, 1992).

[4] Blaise Pascal thought that the differences between Augustine's and Descartes's *cogito* were so significant that Descartes could be claimed its "true author," even if he had learned it by reading

to use the argument in the same way Descartes claims he does, and these may even shed light on Descartes's intentions. One can, for instance, find something akin to the Cartesian line of reasoning in the treatise by Jean de Silhon entitled *L'immortalité de l'âme*. Silhon, a religious apologist, was a friend and correspondent of Descartes. *L'immortalité de l'âme* was published in 1634, before the *Meditations* and *Discourse on Method*. In it, the existence of God, supreme cause of our being, is unfolded from the *cogito*, knowledge of self, which is taken to trump the possibility that the senses are deceiving us or that we are dreaming:

> Every man who has the use of judgment and reason can know *that he is*, that is, that he has being. This knowledge is so infallible that, even though all the operations of the external senses might in themselves be deceptive, or even though we cannot distinguish between them and those of an impaired imagination, nor wholly assure ourselves whether we are awake or asleep, or whether what we are seeing is the truth or illusion and pretense, it is impossible that a man who has the power, as some have, to enter into himself, and to make the judgment *that he is*, should be deceived in this judgment, and *should not be*... Now this judgment that a man makes, *that he is*, is not a frivolous piece of knowledge, or an impertinent reflection. He can rise from there to the first and original source of his being, and to the knowledge of God himself. He can draw from it the demonstration of the existence of a divinity... He can draw from it the first movements toward religion and the seed of this virtue that inclines us to submit ourselves to God, as to the first cause, and to the supreme principle of our being.[5]

The reason why Silhon's line of reasoning might be relevant to considerations about modernity is that the above passage occurs in his Second Discourse, entitled: "That It Is Necessary to Show God Exists before Proving the Immortality of the Soul. Refutation of Pyrrhonism and of the Arguments That Montaigne Brings Forth to Establish It." Thus Silhon makes use of a *cogito* as the basis for an argument for God's existence and for the immortality of our souls in order to refute the skepticism of Michel de Montaigne. Silhon issues a Counter-Reformation response to the Catholic brand of skepticism to which Montaigne and his close follower Pierre Charron were appealing, itself a Renaissance-inspired Catholic Counter-Reformation move; as Charron said, "an academic or a Pyrrhonist will never be a heretic: the two things are opposites" (ibid.,

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Augustine: "For I know what difference there is between writing a word by chance, without making a longer and more extended reflection on it, and perceiving in this word an admirable series of consequences that prove the distinction between material and spiritual natures, and making of it a firm principle, supporting an entire physics, as Descartes claimed to do" (*Œuvres*, p. 358).

[5] Tr. Ariew *et al.*, *Cambridge Texts in Context: Descartes' Meditations* (Cambridge: Cambridge University Press, 1998), pp. 199–200.

p. 62).[6] The modernity of the *cogito* as first principle of knowledge derived through a skeptical method is challenged when one sees a *cogito* used as a response to Montaigne's and Charron's brand of skepticism, a *cogito* that does not really stop to discover the self as subjective, but immediately goes on to find God and establish religion. This *cogito* is the seventeenth-century version of the Augustinian *cogito*; at the very least, it shows that one can hold a *cogito* not for modern reasons, as a phenomenologist, let us say, but for reasons rooted in issues germane to seventeenth-century thought and attempting to defend the status quo.

Silhon was not the only thinker within Descartes's circle who made use of a *cogito* to prove the immortality of the soul. Marin Mersenne, Descartes's principal correspondent, referred to two such works in a letter written in 1635 to the Leyden Protestant professor of theology André Rivet: "we have recently published two books on the immortality of the soul, one a large quarto in French, the other an elegant octavo in Latin" (ed. de Waad *et al.*, V: 80). The two books published on the immortality of the soul in 1634–5 were the French quarto by Silhon and a Latin octavo by the Jesuit Antoine Sirmond, entitled *De immortalitate animae demonstratio physica et Aristotelica*. In another letter to Rivet in 1638, Mersenne objected to his correspondent's position by claiming that "there is a difficulty with thinking that the soul or human understanding has some operation that is independent of the senses, if one holds Aristotle's axiom *nothing is in the intellect without being prior in sense*." To emphasize the difficulty, Mersenne added that several of his people – that is, French thinkers from his circle – "have recently written a small number of books to prove the immortality of the soul on the grounds that it has operations that do not at all depend on the senses" (ibid., VII: 24). Clearly in 1638, Mersenne was thinking of Silhon and Sirmond, as well, perhaps, of the Descartes of the *Discourse*.

It is not clear whether Mersenne meant to include Descartes with these other figures, as engaged in a common project, but Sirmond's line of reasoning resembles not just Silhon's but also Descartes's. His intent (as he claims in his title and specifies in his subtitle: *Adversus Pomponatium et asseclas*) was to demonstrate the immortality of the soul against the interpretations of Aristotle by Pietro Pomponazzi and his followers, using arguments based on Aristotelian principles. As an Aristotelian, Sirmond granted that if our soul had an operation proper to itself, that is, independent of the body, it would be able to survive the body; now, the action of the understanding would be the soul's proper operation, which it could do without the body, as long as it did not require phantasms to do so. If, as Pomponazzi thought, phantasms were necessary for the

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[6] For background on the use of skepticism by Montaigne and Charron as a response to the intellectual crisis of the Reformation, see Richard Popkin, *The History of Scepticism: From Savonarola to Bayle* rev. edn (Oxford: Oxford University Press, 2003).

soul to think, then the soul would have no operation of its own independent of the body. So the issue revolved around whether some sort of impressed species was necessary for the perception of external objects. Sirmond argued that the soul could use intentional species, lacking anything better, but he also argued that there is no need for an intermediary such as an intelligible object in the case of the soul's knowledge of itself, in which intellect and intelligible object are conjoined (French ed. 1637, p. 193). Thus, he judged that "our soul can know itself without the impression of any species" (ibid., p. 169).[7] And, of course, Sirmond also judged, as did Silhon and Mersenne, that "the mind that can operate without body can also subsist by itself. The human mind can accomplish the former. Therefore, it can accomplish the latter . . . Therefore it is immortal" (ibid., pp. 56–60). Unlike Descartes and Silhon, Sirmond did not use his *cogito* to answer any skeptical challenge. Like them, he used it to prove the immortality of the soul, but – again unlike them – he did so within a self-consciously Aristotelian framework.

We seem to be seeing similar views that can be described in dissimilar ways. Descartes's attempt to answer the skeptic by establishing that he exists as a thinking thing is often considered emblematic of modern philosophy, even though the line of argument continues in an effort to prove the existence of God and immortality of the soul from these foundations. Silhon's similar endeavor to answer the skeptic by proving his own existence, continuing with the existence of God and immortality of the soul, cannot be thought of as a progressive move, being clearly rooted within a Renaissance perspective, in the debates between Reformation and Counter-Reformation positions. Finally, Sirmond's attempt to show that the soul knows itself without the intermediary of the senses, and thus is immortal, is issued in an Aristotelian context, in continuity with scholastic philosophy. As a result, it does not look as if this set of doctrines can constitute the contrast between medieval and modern philosophy.

CARTESIANS AND ARISTOTELIANS

It should not be too surprising if the difference between modern and scholastic philosophy cannot be located in a specific set of doctrines. To do so, we would have to contrast, let us say, the views of Cartesians against those of the

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[7] Sirmond extends this ability of the soul to know itself without intermediary to the separated soul and to angels: "the separated soul . . . knows itself without any means other than itself. And it is not difficult to believe that angels who have a more penetrating eye, similarly see in their own nature, without any other aid or impression of species, not only themselves, but many other things" (ibid., p. 193). For more on Sirmond and Silhon, see Léon Blanchet, *Les antécédents historiques du "Je pense, donc je suis"* (Paris: Alcan, 1920) pp. 126–38.

Aristotelians. But either group may be difficult to delineate in that manner. Take for example, "Aristotelian." In the seventeenth century we find the case of Jean-Cécile Frey, who was associated with the University of Paris from 1607 to his death in 1631. As was usual then, he lectured on the four parts of philosophy: logic and ethics the first year; physics and metaphysics the second. Among Frey's lectures is a small treatise called *Cribrum philosophorum qui Aristotelem superiore et hac aetate oppugnarunt* ("A Sieve for Philosophers Who Oppose Aristotle Both in Earlier Times and in Our Own"), a straightforward defense of Aristotle against those who have challenged his doctrines. In his preface Frey writes: "My intention here is to shake the principal anti-Aristotelian doctrines of the principal authors (collected here into this little bundle, as it were) through a sieve of dialectical truth" (*Opuscula*, p. 29). The work that follows is a diatribe against his contemporaries and those of the previous generation who had the temerity to challenge the philosophy of Aristotle. Frey is eager to defend The Philosopher against every attack and every perceived slight. This may strike one as odd, however, particularly since, like all seventeenth-century scholastics, Frey himself departs from properly Aristotelian doctrines in his own teaching. Thus we have a situation in which the same doctrine can be designated as anti-Aristotelian or as Aristotelian depending upon the context in which it is pronounced.

Such dual perspectives can be seen everywhere. Théophraste Bouju, for instance, a contemporary of Frey, wrote a textbook, *Corps de toute la philosophie* (1614), whose subtitle announced: "All of it by demonstration and Aristotle's authority, with explanations of his doctrine by Aristotle himself." Despite the subtitle, Bouju denied in his textbook that there is a sphere of fire and an absolute division between the sublunary and superlunary world. These, most would agree, were important Aristotelian doctrines; dispensing with them requires Bouju to rework substantially the Aristotelian theory of the four elements, of natural and violent motion, and of the heterogeneity of the sublunary and superlunary world (along Stoic lines) – doctrines that happened to be among those most contested by anti-Aristotelians. For the schoolmen, departures from properly Aristotelian doctrines were generally presented as elaborations of his intentions; outside the schools they were often cited as objections to them. Thus, the terms 'Aristotelian' and 'anti-Aristotelian' seem to depend upon the contexts in which they are uttered. Similar things can be said about 'Cartesian.' As a result, it becomes difficult to specify a set of philosophical doctrines that identifies Aristotelians versus Cartesians – and more so for scholastics versus moderns.

Still, there are clear indications that significant changes were taking place. One sees the multiplication of titles, such as Frey's *Cribrum* or Pierre Gassendi's

Exercitationes paradoxicae adversus Aristoteleos (*Unorthodox Essays Against the Aris-totelians*, 1624), together with the rhetoric of "new philosophers," or ancients versus moderns, accepted even by scholastics. For example, the Oratorian[8] Jean Baptiste de la Grange wrote *Les principes de la philosophie contre les nou-veaux philosophes, Descartes, Rohault, Regius, Gassendi, le P. Maignan, etc.* Authors of seventeenth-century scholastic textbooks, such as the Dominican Antoine Goudin and the Franciscan Claude Frassen, felt the need to discuss critically Descartes's philosophy, alongside that of their respective heroes, Thomas Aquinas and John Duns Scotus. Descartes himself saw himself in opposition to the Aris-totelians and at times considered himself at war with Jesuits and other scholastics; as he said to Mersenne, "these six Meditations contain all the foundations of my physics. But please do not tell others, for that might make it harder for sup-porters of Aristotle to approve them. I hope that readers will gradually get used to my principles, and recognize their truth, before they notice that they destroy those of Aristotle" (ed. Adam and Tannery, III: 298). There were even thinkers who set out to mitigate the differences between the ancients and the moderns. René le Bossu published *Parallèle des principes de la Physique d'Aristote et de celle de René Des Cartes* (1674). As he saw the situation, Aristotle had been teaching beginners, and so started with what was obvious to everyone, the sensible things around us, for example, and asked what they were made of. Descartes, at a more advanced stage of science, considered the matter common to everything, which is extended substance, and claimed that every particular is given a form by the way that general matter is shaped. Their principles are therefore not so opposite to one another.

More importantly, one also sees political and ecclesiastical condemnations, consisting in institutional attacks on the moderns and a corresponding support for the scholastics. In 1663 the Catholic church put Descartes's works on the *Index of Prohibited Books*. Shortly thereafter, in 1671, the archbishop of Paris issued a verbal decree from King Louis XIV directed initially at the University of Paris, but immediately extended to the whole kingdom: "The King exhorts you, sirs, to bring it about that no other doctrine than the one set forth by the rules and statutes of the University is taught in the Universities and put into theses. He leaves you to your prudent and wise conduct to take the necessary course of action." The reason for the decree was a possibility of "confusion in the explanation of our mysteries." The decree mentions "certain opinions the

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[8] The Oratory of France was founded in 1611 by Pierre de Bérulle. Given that the most famous Oratorian, Nicolas Malebranche, was also a noted Cartesian, Oratorians are often thought to be followers of Descartes. This is not an altogether accurate view; for the relationship between Carte-sianism and the Oratory, see Roger Ariew, "Oratorians and the Teaching of Cartesian Philosophy in Seventeenth-Century France," *History of Universities* 17 (2001–2) 47–80.

faculty of theology once censored," a reference to a condemnation of fourteen anti-Aristotelian propositions in 1624, when the Sorbonne had censored various opinions disseminated by some alchemists. The faculty objected to their philosophical claims, which attacked "peripatetic dogma," and asserted that "the prime matter of the Peripatetics is fictitious" and "their substantial forms are absurdly defended." The faculty also censored the claim rejecting that "physical alterations happen through the introduction or destruction of an accidental entity," because, the Sorbonne said, it attacked the "holy sacrament of the Eucharist." The king's 1671 exhortation recalled the subsequent *arrêt* issued by the Court du Parlement in the earlier incident, which prohibited "all persons, under pain of death, from either holding or teaching any maxims against the ancient authors approved by the doctors of the Faculty of Theology." Although anti-scholasticism comes in countless forms during the seventeenth century, Cartesianism was clearly the "other doctrine" against which the 1671 decree was directed, even if Louis did not directly mention it, since Cartesianism dominated the discussion in Paris during the latter part of the century. In any case, he clarified his intent as early as 1675, specifically naming those who "taught the opinions and thoughts of Descartes" as ones who "might bring disorder to our Kingdom." The Sun King ordered that they "be prevented from continuing their lessons in any way whatsoever."[9]

There is a first-hand account of the subsequent events at the college of Angers in the *Journal* kept by François Babin, doctor of the faculty of theology, who was horrified by the attitudes of the Cartesians:

Young people are no longer taught anything other than to rid themselves of their childhood prejudices and to doubt all things – including whether they themselves exist in the world. They are taught that the soul is a substance whose essence is always to think something; that children think from the time they are in their mothers' bellies . . . It is no longer fashionable to believe that fire is hot, that marble is hard, that animate bodies sense pain. These truths are too ancient for those who love novelty. Some of them assert that animals are only machines and puppets without motion, without life, and without sensation; that there are no substantial forms other than the rational soul.

(ed. 1679, p. 2)

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[9] On the 1671 decree, see Jean-Baptiste Duhamel, *Philosophia universalis* (ed. 1705, V: 18). For the 1624 condemnation of atomism, see Jean de Launoy, *De varia Aristotelis fortuna* (ed. 1656, 128–9, 132), and Charles Duplessis d'Argentré, *Collectio judiciorum de novis erroribus* (ed. 1736, II: 147). Louis XIV's 1675 restatement is described in François Babin's *Journal* (ed. 1679, p. 6). For more on the events in 1624, see Daniel Garber, "Defending Aristotle/Defending Society in Early 17th C Paris," in C. Zittel and W. Detel (eds.) *Wissensideale und Wissenskulturen in der frühen Neuzeit* (Berlin: Akademie Verlag, 2002) 135–60.

It is clear that, for Babin, something had gone terribly wrong. He continued his observations, moving from pedagogical and epistemic to metaphysical and theological problems, and ultimately to political ones:

The Cartesians assert that accidents are not really distinct from substance; that it would be well to guard oneself from attributing some knowledge or certainty to the testimony of our senses . . . They make the essence of all bodies consist in local extension, without worrying that Christ's body does not better accommodate their principles and our mysteries; they teach that something does not stop being true in philosophy even though faith and the Catholic religion teach us the contrary – as if the Christian and the philosopher could have been two distinct things. Their boldness is so criminal that it attacks God's power, enclosing him within the limits and the sphere of things he has made, as if creating from nothing would have exhausted his omnipotence. Their doctrine is yet more harmful to sovereigns and monarchs, and tends toward the reversal of the political and civil state.

(ibid.)

According to Babin, the Cartesians were so out of control that, far from heeding the king's edict, they were making a mockery of it. They wrote satirical verses and issued their own decree: if the king and his henchmen were going to condemn Cartesianism, the Cartesians in turn were going to condemn the authorities to their fate for having supported Aristotle.

The Cartesians' satire traveled even to Angers. Babin reproduced the verses and prefaced a version of the satirical decree with the following comment:

We produce this piece here to show that the innovators use all their wit and industry in order to evade and translate into ridicule the powers that fight against them; and that they do not fail to use mockery, caricatures, or jokes to validate their decried opinions, wishing by that means to dazzle the common minds by the effect of a false light and to persuade the rabble that reason, truth, knowledge, and good sense are theirs alone.

(ibid., p. 18)

In their "*arrêt burlesque*" the Cartesians mandated that Aristotle be reestablished "in the full and peaceful possession of the schools" and commanded "that he always be taught and followed by the regents, masters, and professors of the schools – without, however, their being required to read him, or to know his opinions" (ibid., p. 19). They similarly ordered the heart to remain the principle of the nerves and the blood to stop circulating. They even reestablished the good reputation of the Scotistic *haecceities* and other formalities. In fact, other than protecting Aristotle from the examination of Reason, the Cartesians, in their burlesque, seemed most eager to prevent Reason from defaming and from banishing from the schools the "formalities, materialities, entities, identities, virtualities, *haecceities*, petreities, polycarpeties, and all the other children of the

defunct master of the Schools, John Scotus, their father." If the court did not act, they suggested, this "would bring about a great prejudice and cause a complete subversion of the Scholastic philosophy which derives all its substance from them" (ibid., p. 19). The Cartesians' *arrêt* "banishes Reason to perpetuity from the schools of the aforementioned University, prohibits it from entering there, from troubling or bothering the aforementioned Aristotle" (ibid., p. 18).

Of course, the authorities at Angers prevailed. They submitted some professors' writings to examination and found that the authors were teaching the prohibited propositions. Consequently, Fathers Fromentier and Cyprien Villecroze of the Oratory were censured; Fathers Bernard Lamy and his successor, Vincent Pélaut, were ultimately prohibited from teaching and exiled from Angers (ibid., pp. 35–45). The censors of Angers identified a number of Oratorian theses as Cartesian; for example, they objected to Fromentier's teaching that real accidents are not to be distinguished from substances and to his explanation of the Eucharist without having recourse to real accidents. They also complained about the doctrine of the indefiniteness of the universe and of Cartesian doubt, against which they asserted: "To say that we must doubt all things is a principle that tends toward atheism and upsets the foundations of the highest of mysteries . . . It manifestly entails atheism or at least the heresy of the Manicheans, who accepted a good and an evil principle for all creatures" (ibid., pp. 40–1). And they objected to both Fromentier's doctrine about the immateriality and immortality of animal souls and Descartes's animal-machines as originating from the same impoverished ontology. In the case of Lamy, the censors protested against numerous propositions identified as Cartesian. Two of these concerned problems previously raised against Fromentier about the explanation of the Eucharist. However, with Lamy, instead of just complaining about real accidents, they objected to the definition of extension as the essence of body and the rejection of substantial forms. They also derided Lamy's acceptance of the *cogito*, his assertion that children think in their mother's womb and that sensations such as pain are experienced in the soul, not in the body. Apart from their critique of skepticism and of the *cogito*, for the authorities of Angers to be a Cartesian was mostly equated with two things: first, with the acceptance of a mechanistic or corpuscularian philosophy of bodies, entailing the denial of real qualities and substantial forms together with the rejection of formal and final causation; second, with dualism, requiring the clean separation of soul as immaterial thinking substance and body as material extended substance.[10] These

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[10] For questions about mechanism and forms, see Roger Ariew, *Descartes and the Last Scholastics* (Ithaca, NY: Cornell University Press, 1999), Dennis Des Chene, *Physiologia: Philosophy of Nature in Descartes and the Aristotelians* (Ithaca, NY: Cornell University Press, 1995), and Robert Pasnau,

metaphysical theses were thought to have significant negative consequences for Catholicism. Most interesting as well is the rhetoric of the episode, the sense of incomprehension on both sides: the mockery of the Cartesians, the indignation of the journal writer, and so forth. The positions are so polarized that the situation looks like what Thomas Kuhn would have signaled as a paradigm shift.

VARIETIES OF ARISTOTELIANISM

Despite such clashes, the elements considered modern by both the Cartesians and the scholastics were not really so modern. William of Ockham and others might have agreed that final causes need not be invoked in the explanation of natural phenomena.[11] In any case, notable moderns, such as G. W. Leibniz and Robert Boyle, reintroduced formal and final causes,[12] and there were plenty of corpuscularian scholastics in the seventeenth century (at the very least, Fromentier, as above, the Minim Emmanuel Maignan and the Jesuit Honoré Fabri). A significant variation in late Aristotelian matter theory was the theory of *minima naturalia,* generally discussed in the context of rarefaction and condensation, or change of quantity. Although Aristotle was strongly anti-atomist, thinking that the continuum could be divided indefinitely, he also uttered the seemingly innocuous proposition that "neither flesh, bone, nor any such thing can be of indefinite size in the direction either of the greater or of the less" (*Physics* I.4). This comment took off on its own, and by the seventeenth century the resulting doctrine entailed that there are intrinsic limits of greatness and smallness for every sort of living thing. For example, some argued that since every natural body has an actually determined substantial form, every natural body must have a determinate assortment of accidents and its quantity must be limited to some particular range. Moreover, they asserted limits even for the four basic elements (earth, air, fire, water), which have no intrinsically determinate magnitude; the elements might be augmented indefinitely, if there were matter enough, and their division can be continued indefinitely. They

"Form, Substance, and Mechanism," *Philosophical Review* 113 (2004) 31–88, among others. More generally, for an account of the relation between Descartes's philosophy and science, see Daniel Garber, *Descartes' Metaphysical Physics* (Chicago: University of Chicago Press, 1992) and *Descartes Embodied* (Cambridge: Cambridge University Press, 2001).

[11] For Ockham, see *Quodlibet* IV.1. Also see Marilyn McCord Adams, *William Ockham* (Notre Dame, IN: University of Notre Dame Press, 1987) chs. 18 and 22, esp. pp. 975–9.

[12] For Boyle, see *A Disquisition about the Final Causes of Natural Things* (1688), in *Works* vol. IX; for Leibniz, *Discourse on Metaphysics* (1686) sec. 18–21 etc. in *Philosophical Essays* 35–68. Christia Mercer, *Leibniz's Metaphysics: Its Origins and Development* (Cambridge: Cambridge University Press, 2001) traces Leibniz's early and continued commitment to final and formal causes.

do have an extrinsic limitation, however, with respect to prime matter: there may not be enough prime matter to sustain a form and the amount of prime matter is finite. Moreover, they cannot be indefinitely condensed or rarefied – that is, they cannot have their quantity diminished or augmented indefinitely – without being corrupted. For example, earth cannot become as rarefied as fire, and fire cannot become as condensed as earth. When air is condensed beyond a certain point, it becomes water, and water overly rarefied becomes air. Thus, for a late scholastic, rarefaction and condensation could result in generation and corruption under appropriate circumstances. There is, then, a natural minimum of any given element, which is to say that late scholasticism could countenance a kind of atomism. This doctrine of a natural minimum became a bridge between Aristotelian and alchemical theories of matter.

Daniel Sennert, professor of medicine at Wittenberg, provides a good example of a corpuscularian alchemist working within scholastic tradition.[13] In a discourse on "Atoms and Mixtures," originally published in his *Hypomnemata physica* of 1636, Sennert develops the notion that the matter constituting bodies is composed of particles that can be divided again into their original minimal form. Like other chemists, he uses chemical operations to argue that there are atoms in nature. "And although those Atomes be so exceedingly small; yet the essential forms of things remain in them entire, as was lately said, and experience it self does witness" (*Thirteen Books* XI.1 [ed. 1659, pp. 453–4]). Sennert's atoms are of two kinds. First are those from which all things are made, that is, the four Aristotelian elements, each with its own form. They are the smallest things in nature. Sennert argues that the particles of fire are the smallest atoms, that they are "more subtile than the atomes of earth," and "that they diffuse not themselves beyond their Natural bounds" (ibid., p. 454). He constructs an argument on analogy with light, which he claims has a *minimum naturale*: "though there is not a smallest in quantity, yet Light hath a smallest in Nature, that is to say, so smal a Light that it cannot be smaller without perishing. After which manner there are also the smallest among Natural Bodies; which if they be any more divided they lose their form and essence" (ibid.). Sennert even argues that this view is consistent with the division of the continuum to infinity:

Now those disputes against Atomes concerning the infinite division of that which is continued of indivisible Lines, are disputed not from Natural but Mathematical Principles. For the question is not here . . . whether a thing continued to be perpetually

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[13] William Newman, *Atoms and Alchemy: Chymistry and the Experimental Origins of the Scientific Revolution* (Chicago: University of Chicago Press, 2006), is an excellent exposition of early modern alchemy centered around Sennert and his influence on Boyle.

divisible Mathematically? but, whether or no Nature in her Generation and resolution of Bodies does not stop at some smallest Bodies, than which there are not, nor can be any smaller.

(ibid.)

The second atoms, which Sennert specifically identifies with the principles of the chemists – such as quicksilver, vitriol, sulfur, and salt – are the first mixtures, or second-order corpuscles composed out of the atomic elements. These are rarely divided, but other compound bodies normally resolve into them. "For there are (in the second place) Atomes of another kind besides the Elementary (which if any man wil term first mixt bodies, he may do so as he please) into which as similar parts other compounds are resolved" (ibid., p. 451). Sennert's hierarchy of particles enables him to recover the alchemical tradition as a middle-level theory within a broadly Aristotelian framework of the four elements differentiated at the basic level by their natures. This provides just one example of how the connection between the philosophers we consider modern and the onset of modern science is not as straightforward as one might think.

The rise of modern philosophy and the waning of medieval philosophy cannot be accounted for by pointing to a new doctrine or set of doctrines. Perhaps one can say that some doctrines that were once on the periphery coalesced at the center; one can also point to many social and institutional changes, together with the growing tendency to philosophize in the vernacular and the beginnings of scientific societies outside the schools. Early modern figures such as Descartes began to construct systems they considered to be in opposition to those of the scholastics, and the scholastics often accepted the characterization of that opposition, further polarizing the situation. In the second generation, such philosophers as Leibniz and Malebranche saw themselves as philosophizing with both scholastic and Cartesian doctrines among their options, together with other possibilities such as Gassendi's neo-Epicureanism. Ultimately, in the third or fourth generation, philosophy was done in the background of debates between rationalists and empiricists, with Descartes, Locke, and Hume in mind. By the time Immanuel Kant referred to "school metaphysics," the scholastic philosophy he was thinking of was not that of the medieval period, but of Christian Wolff.

II

LOGIC AND LANGUAGE

THE DEVELOPMENT OF LOGIC IN THE TWELFTH CENTURY

CHRISTOPHER J. MARTIN

The twelfth century was one of the most important and exciting periods in the history of logic. At the start of the century, the production of elementary glosses on ancient texts gave way to a sophisticated commentary literature in which writers developed and debated their own theories concerning what we would now classify as ontology and philosophical logic. Most famous today are the disputes over the status of universals; the present chapter, however, focuses on the less well-known – but, I believe, more important – work done on theories of meaning, modality, and the relation of logical consequence. Many of the works that have survived from the twelfth century are anonymous, but fortunately at least some of those by Peter Abaelard do bear his name: in particular his survey of logic, the *Dialectica* (probably written around 1112) and a set of commentaries on the books of the *logica vetus* known as the *Logica "Ingredientibus"* (probably written between 1115 and 1120). Abaelard is the outstanding logician of this period and is, indeed, one of the greatest of all logicians.[1] His work in these areas fundamentally shaped later development in logic; what follows is essentially an account of his views and of the problems to which they gave rise.

To grasp the importance and originality of Abaelard's work, it is first necessary to understand in some detail the character of the semantical and logical theories that Boethius bequeathed to the Middle Ages. These were transmitted in his translations of both Porphyry's *Isagoge* and Aristotle's *Categories* and *De interpretatione*, together with his own *Introductio ad syllogismos categoricos* and *De syllogismo categorico* (which together paraphrase *Prior Analytics* I.1–7), his treatises *De hypotheticis syllogismis*, *De differentiis topicis*, and *De divisione*, and his commentaries on the *Categories*, as well as on the *Isagoge* and *De interpretatione*, both of which he commented on twice. This small collection of works, later referred to as the *ars vetus* or the *logica vetus* (the Old Logic), would determine the structure

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[1] For a more extensive discussion of Abaelard's revolution in logic, see Christopher J. Martin, "Logic," in J. Brower and K. Guilfoy (eds.) *The Cambridge Companion to Abelard* (Cambridge: Cambridge University Press, 2004) 158–99.

and aims of logic, or dialectic, at the beginning of the twelfth century. Abaelard's monumental achievement was to transform Boethius's confused and sometimes incoherent material into a unified logical theory.

THE MEANING OF NAMES: IMPOSITION AND ESSENCE

Twelfth-century theories of the meaning of names – and, indeed, all such theories developed in the Middle Ages – take as their starting point Aristotle's remarks in the first three chapters of *De interpretatione* and Boethius's extensive commentary on them. For both Aristotle and Boethius, the meaning of a name is an understanding (*intellectus*) – that is, an affection of the soul (*passio animae*) – that in the mind of a speaker prompts an utterance of the name and that, in turn, is constituted as an understanding in the mind of a listener who hears the utterance. Aristotle postulated a natural relationship of likeness between understandings and things in the world. Boethius explained this relation in terms of a simple but influential theory of form-transference: the sensible forms of extramental individuals are transferred to the mind through the sense organs and reproduced there as images of their sources. The form that constitutes an individual as the kind of thing that it is is separated out by the mind from the other forms to yield the understanding of the thing's species. (Unfortunately for the history of semantics, in his longer commentary on *De interpretatione* I [ed. Meiser, pp. 27–8], Boethius complicated this account by translating a cryptic aside from *De anima* III.8, and so bequeathed to his early twelfth-century successors Aristotle's authority for the highly problematic claim that every understanding requires a co-present image.)

Names, both spoken and (by extension) written, are causally but conventionally associated with understandings. This association is established and maintained by acts of *imposition* – that is, the initial baptism and later ostension of individuals with their proper names and of paradigms of natural kinds with their specific and generic names. A name primarily signifies the understanding with which it is associated by this process and secondarily signifies the things in the world of which that understanding is a likeness (ibid., pp. 33–4). The understandings signified by common names are the same for all speakers of a given language. Those signified by proper names differ, however, in that corresponding to the different descriptions that may be given of the named individuals, different collections of accidental forms distinguish one individual from another at different times (ibid., ch. 7, pp. 136–7). The understandings signified by natural kind terms such as 'human being' or 'stone' – unlike those signified by descriptions or propositions – are said to be simple since no mental act of composition is involved in obtaining them. Nevertheless, according

to Boethius, these understandings possess a conceptual structure correspond-
ing to the definition of the kind in question; this allows him to say that, in
understanding *human being*, we understand *mortal rational animal* (ibid., ch. 2,
p. 74).

Abaelard agrees with Boethius's general picture of the relationship between
names, understandings, and things, and he develops this basic account into a
sophisticated theory of signification and reference in which proper and general
names both function in the same way. He rejects the naïve form-transference
model of understanding, however, in favor of a combination of an act-object and
adverbial theory. On this approach, understanding is not invariably mediated
through an image; rather, the understanding signified by a name is a mental act
of attending to an object *as* something – the adverbial component of the theory.[2]
The object may be either an extramental individual – Socrates, for example, if he
is standing in front of me when I hear the name 'Socrates' – or a mental image,
if an appropriate extramental object is not present. Abaelard further maintains
that since everything that exists is individual, the understanding associated with
a species name has as its object a *confused* image resembling equally all and only
the individual members of that species. His theory of understanding does not,
however, really need such an image, since it makes no distinction between the
mental operation of understanding a general name and that of recognizing an
individual as a member of a particular kind. For the latter, what is necessary
is that the extramental individual be attended to as belonging to the kind in
question. We may thus, Abaelard says, attend to a particular piece of oak either
as oak, as wood, or as body (*Logica* "*Ingredientibus*," p. 329).

Abaelard apparently assumes that our recognition of the kinds into which the
world is divided is entirely unproblematic. When the impositor (and so in the
first place Adam) introduces a new general name, he intends that it shall apply
to all and only individuals of the kind to which the paradigm example belongs.
His audience associates the new name with an understanding that attends to
either an individual or an image, *as* (or *as of*) an individual of that kind. We
thus recognize stones as stones, according to Abaelard, and we understand what
a speaker is talking about when he uses the name 'stone' (*Logica* "*Nostrorum
petitioni sociorum*," ed. Geyer, p. 567).

Abaelard is an essentialist, though he does not use the term 'essence' but
rather 'nature' for the set of features that constitute something as a member of
a species. Natures are expressed by definitions, which must be determined by
the investigations of the natural scientist (*physicus*),[3] since without them we do

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[2] See, e.g., *Logica* "*Ingredientibus*," ed. Geyer, p. 322; *De intellectibus*, ed. Morin, nn. 28, 62 sq.
[3] See *Dialectica*, ed. de Rijk, pp. 286–7.

not in general know the definitions even of the natural kinds that we are easily able to identify: "we all know in our ordinary use of language which things are called 'stones.' What the proper *differentiae* of stone are, however, or what the properties of this species are, we are still not able, I believe, to assign with a word with which the definition or description of stone might be completed" (*Collationes*, ed. Orlandi and Marenbon, p. 207).

Although in introducing the word 'stone' the impositor is ignorant of the nature of stones, its meaning is nevertheless, as he intends it to be, precisely that of the definition that completely expresses the nature of stones. That is to say, the understanding signified by 'stone' *contains* everything contained in the not yet, and perhaps never, formulated definition. The understanding signified by the term is, however, *simple*, whereas that signified by the definition is composite. In understanding the name we attend to precisely what we would attend to in understanding the definition if we knew it. The only difference is that in the first case we understand the components all together and all at once, whereas in the second case we understand them separately and in succession (*Logica* "*Ingredientibus*," p. 325).

Abaelard differs from Boethius in treating proper names in the same way that he treats natural kind terms. Whereas Boethius had taken differences between individuals to require different proper names to signify their different sets of accidents, Abaelard takes 'Socrates' to signify only what 'human being' signifies. He defends this view on the grounds that Socrates's accidental features change over time, and that Socrates might have an identical twin brother.[4]

Abaelard's essentialism and his theory of imposition entail that natural kind and proper names rigidly designate the kinds and the individuals on which they are imposed. His account of signification and understanding guarantees both that the understanding signified by a natural kind term contains everything contained in the compound understanding that is signified by its definition, and that a proper name signifies everything contained in the understanding signified by the corresponding species name, even though someone using the terms may well not know what this is. Propositions such as 'If something's a human being, then it's rational' and 'If something's Socrates, then it's an animal' are thus, on Abaelard's account, what we would now call analytic a posteriori truths.

THE DISCOVERY OF PROPOSITIONALITY

If one had to choose a single passage to illustrate the true greatness of Abaelard as a philosophical logician, it might be this:

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4 *Logica* "*Nostrorum Petitioni Sociorum*," p. 547; *Logica* "*Ingredientibus*," p. 142.

Since [Boethius] concedes that 'If it's day, then it's light' is a single proposition in which different propositions are reduced to a single sense by the preposed conjunction, I do not understand why 'Apollo is a prophet and Jupiter thunders' cannot be called a single proposition, just like 'When Apollo is a prophet, Jupiter thunders.' Whence each of them may have a single proposition [that is its negation and] with which it divides [truth and falsity]. So that just as we say 'It's not the case that if it's day, then it's light,' we may also say 'It's not the case [both] that Apollo is a prophet and Jupiter thunders.'

(*Logica* "*Ingredientibus*," p. 380)

As well as maintaining that the copulative conjunction 'and' does not form a single proposition from the two given propositions, Boethius rejects the Stoic practice of preposing a negative particle to a proposition. Instead, he insists that it must be applied directly to the verb. Neither he nor the commentary tradition to which he belongs had any notion at all of a propositional operation in the modern sense, and so recognized nothing corresponding to a modern propositional logic.[5] From the sources available to us it seems that Abaelard was the first in the Middle Ages fully to understand propositionality as we do and the first to deploy this understanding in the formulation of the principles of propositional logic.

Believing that Frege discovered it, Peter Geach honors as the *Frege Point* the distinction between propositional content and the force with which that content is employed. It is this distinction that must be drawn if propositional contents are to be manipulated with propositional operations.[6] A propositional operation is a function that takes any propositional content and transforms it into a new propositional content. The assertion 'Socrates is sitting,' for example, and the command 'Be seated, Socrates!' have the same propositional content – *that Socrates is sitting*. The operation of truth functional propositional negation transforms this into the content *it is not the case that Socrates is sitting*, which is true if the original is false and false if the original is true. This content may then be asserted with 'Socrates is not sitting' or commanded with 'Do not sit, Socrates!'

Although he lacks a terminology adequate to formulate this point generally, Abaelard clearly makes this very distinction between force and content. He maintains, for example, that the very same understanding is signified by an utterance of the assertion 'I hope that the king will come,' and an utterance of the wish 'Would that the king will come.' He believes that the difference in the force of utterances is indicated either by their different grammatical moods or

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[5] See Christopher J. Martin, "The Logic of Negation in Boethius," *Phronesis* 36 (1991) 277–304.
[6] Peter Geach, "Assertion," *Philosophical Review* 69 (1960) 221–5.

by the occurrence in them of markers such as adverbs (*Logica* "*Ingredientibus*," p. 374).

Abaelard refers to the operation of propositional negation as what he calls *extinctive* or *destructive* negation, distinguishing it from the predicate negation found in the works of Aristotle and Boethius, which he calls *separative* or *remotive* negation. Extinctive negation is what we would classify as a truth-functional operation that, applied to any propositional content, forms another that is false if the original is true and true if the original is false, independently of whether or not the extension of the subject term is empty. Such negation may be iterated without limit. Separative negation, on the other hand, applies only to categorical propositional contents and cannot be iterated. In the standard case, according to Abaelard, the truth of an affirmative categorical '*S* is *P*' requires that the extension of '*S*' is not empty. The separative negation '*S* is not *P*' is then true just in case the extension of '*S*' is not empty and '*S* is *P*' is false (*Dialectica*, pp. 173–84).

Abaelard can thus distinguish the extinctive negation of any simple categorical as its contradictory from the separative negation as its contrary. Relying on both this and the distinction between propositional content and the force with which that content is employed, he is able to reinterpret Aristotle's claims about the relations between general categorical propositions in terms of a genuinely propositional logic.

In addition, contrary to Boethius's insistence that his own expression 'Some *S* is not *P*' (corresponding to the formulation '*P* does not inhere in some *S*' employed by Aristotle in the *Prior Analytics*) has the same meaning as the expression 'Not every *S* is *P*' (given by Aristotle as the contradictory opposite of 'Every *S* is *P*' in *De interpretatione* 7), Abaelard finds here the distinction between predicate and propositional negation and constructs a rectangle of opposition rather than the Aristotelian square (*Logica* "*Ingredientibus*," pp. 408–11), as shown in Fig 10.1.

Like propositional negation, copulative conjunction is for Abaelard a purely extensional operation; the conjunction '*P* and *Q*' is true just in case each of '*P*' and '*Q*' is true. The logical operations of disjunction and conditionalization on the other hand, as we will see below, are highly non-extensional.

Abaelard's *Dialectica* distinguishes the syntactic constructions (*constructiones*) employed in making modal claims from the sense (*sensus*) of these constructions.[7]

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[7] Although Abaelard certainly knew something of at least the first few chapters of the *Prior Analytics* (part of the *logica nova* that would become fully available only later in the century), his complex and sophisticated treatment of the logic of modal terms seems to be based only on the discussion of the interaction of negation and modality in Chapters 12 and 13 of *De interpretatione.*
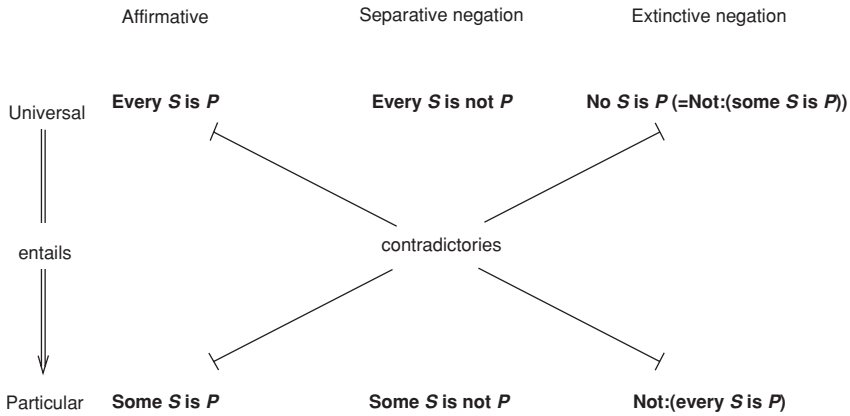
Fig. 10.1 Rectangle of opposition.

With respect to syntax, the subject and predicate are determined by the rules of grammar. With respect to sense, however, the mode is an adverbial operator modifying the connection of the predicate to the subject in the corresponding simple categorical. Thus, both 'Socrates is necessarily human' (using an adverbial mode to modify the predicate) and 'Socrates being human is necessary' (using a nominal mode as the predicate) are, according to Abaelard, used to make precisely the same modal claim. Yet only the first shows properly in its construction that what is intended is a claim about the connection between the grammatical and logical subject 'Socrates' and the grammatical and logical predicate 'human.' Although the second has the same logical subject and predicate, its grammatical subject is 'being human' and its grammatical predicate 'necessary.'

Hence, according to Abaelard, modal claims are properly understood as claims about things (*de rebus*), and their equivalence or otherwise is determined by considering the sense of modal sentences rather than their grammatical construction (*Dialectica*, pp. 191–210). Adopting this procedure for resolving their meanings, he works out the relations of equipollence (that is, identity of truth value) that hold between the modal propositions derived from simple categoricals of different quantity and quality. Indeed, Abaelard goes on to develop the first medieval account of the modal syllogism (and one quite unlike Aristotle's, of which he had no knowledge). He notes that corresponding to every mood and figure of Aristotle's categorical syllogism there is a mixed modal syllogism – that is, a syllogism in which either one of the premises or else the conclusion is non-modal. On Abaelard's *de rebus* account of modality, a syllogism may have

two modal premises only if the predicate of each premise is modalized. But in that case in order for there to be a syllogism the predicates must be the same and the middle term of an argument in the second figure, the conclusion of which is non-modal. In the first and third figures the major premise may be modal, but the minor must then be categorical and the conclusion modal. In contrast to Aristotle, there are thus for Abaelard no completely modal syllogisms (that is, syllogisms of which both of the premises and the conclusion are modal), since on the *de rebus* account of modality the corresponding arguments would lack a middle term, and so not be syllogisms (ibid., pp. 245–8).

In the *Dialectica*, Abaelard contrasts his *de rebus* theory of modals with the theory of one of his teachers (whom he does not further identify). According to this theory, a grammatical construction with a nominal mode does in fact properly represent the logical structure of the claim being made; the claim made by 'Socrates being human is necessary,' for example, is that the propositional content of the corresponding simple categorical is a necessary truth. We thus have clearly formulated by the second decade of the twelfth century the distinction between the *de re* and *de sensu* accounts of modality. The latter, however, construes modalities as predicates of propositional contents, and there is no suggestion that modality is a propositional operator. In the *Dialectica* Abaelard rejects the *de sensu* reading as not properly modal, and he argues at length that its proponents do not properly understand what it commits them to in terms of the truth or falsity and the convertibility of propositions containing nominal modes (ibid., p. 195).

In the *Logica* "*Ingredientibus*," Abaelard again distinguishes between the grammatical construction and the sense of modal propositions. He adds, however, that he has now seen Aristotle's *Sophistical Refutations* (part of the *logica nova*), and he proceeds to identify the distinction made there between the divided (*per divisionem*) and composite (*per compositionem*) readings of modal propositions with his own distinction between what are today called *de re* and *de sensu* claims. He then acknowledges that some modal claims are irreducibly impersonal and so not resolvable into equivalent *de rebus* claims (pp. 195–8). In addition to establishing which propositions are equipollent, he shows how to work out, for all the various quantities and qualities they might have, which *de rebus*/divided modal claims follow from which other ones and which of them are contradictories, contraries, and subcontraries. He also begins to investigate the logical relations between *de rebus*/divided and *de sensu*/composite modal claims (pp. 198–203). It would be well over a hundred years before there was a comparable attempt to develop a theory of modal propositions.[8]

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[8]   See Henrik Lagerlund, *Modal Syllogistic in the Middle Ages* (Leiden: Brill, 2000).

ARGUMENTATION AND CONDITIONAL PROPOSITIONS

Although Boethius's treatise *De hypotheticis syllogismis* offers an account of the logic of conditional and disjunctive sentences, it played no role in the development of logic after the middle of the twelfth century – apparently as a result of Abaelard's criticisms. Because he lacks an understanding of propositionality, Boethius has no way to formulate the rules for the manipulation of conditionals generally by saying, as we do, that, if '*p*' and '*q*' and '*r*' are any propositional contents, no matter how complex, then the following are all valid arguments: 'If *p*, then *q*, *p*; therefore *q*' (*modus ponens*); 'If *p*, then *q*, not:*q*; therefore not:*p*' (*modus tollens*); and 'If *p*, then *q*, if *q*, then *r*; therefore if *p*, then *r*' (*perfect hypothetical syllogism*). Rather, Boethius lists all the possible forms of simple conditionals with a simple categorical affirmation as antecedent and consequent, and he states *modus ponens* and *modus tollens* separately for each case. He does the same for composite conditionals with one of the antecedent and consequent a simple categorical and the other a simple conditional, and likewise for conditionals with both antecedent and consequent a simple conditional. For all forms of the simple conditional he also gives the appropriate perfect hypothetical syllogism. And that is all as far as inferences with conditionals are concerned. In addition, Boethius imposes some very curious constraints on compound conditional premises, which perhaps reflect an ancient attempt to connect hypothetical and categorical syllogistic, but which have some strange consequences. For example, the conditionalized contraposition 'If (if *p*, then *q*), then (if not:*q*, then not:*p*)' is unacceptable, since a necessary condition for the truth of such a conditional, according to Boethius, is that there is an appropriate connection between the antecedent and consequent conditionals, and for this to be so both conditionals must be false. This, however, contradicts his own proof of *modus tollens* in which he argues that 'if *p*, then *q*' is true 'not:*p*' follows from 'not:*q*' (*De hypotheticis syll.*, pp. 354–80).

Boethius stipulates that a necessary condition for the truth of a simple conditional is that the truth of the antecedent is inseparable from that of the consequent – that is, it is not possible for the antecedent to be true and the consequent false at the same time. He does not explicitly indicate whether this is also sufficient, but he does distinguish between conditionals in a way that suggests it is not. The distinction, which will be standard in medieval logic until William of Ockham, is that between conditionals such as 'If fire is hot, then the heavens are spherical,' which hold accidentally, and those such as 'If something is a human, then it is an animal,' which express a natural consequence (*consequentia*) in which there is an explanatory connection between antecedent and consequent (ibid., pp. 218–20). A disjunction, according to Boethius, is

equivalent to a conditional that has the opposite of the first disjunct as its
antecedent and the second disjunct as its consequent. Since he also holds that as
a matter of fact the only conditionals of the form 'If it's not:*A*, then it's *B*' that
are true are those in which '*A*' and '*B*' are simple terms immediately opposed
to one another (and so exclusive and exhaustive of the domain to which they
apply), the same holds for 'It's *A* or it's *B*,' for example 'It's sick or it's well'
with respect to animals (ibid., p. 234). Disjunctions containing negative terms,
like the corresponding conditionals, hold for terms that are exhaustive but not
necessarily exclusive.[9]

Boethius classifies a conditional as affirmative or negative depending only
on whether its consequent is affirmative or negative (ibid., p. 252). Despite
repeatedly giving examples that show that he does not accept the principle of
conditional excluded middle for an affirmative and the corresponding negative
conditional – that is, that 'If it's *A*, then it's *B*' and 'If it's *A*, then it's not
B' are contradictory – his treatment of the hypothetical syllogism appears to
commit him to just this. The problem arises because Boethius has no operation
of negation to apply to the whole of a conditional proposition and so no way
of distinguishing its negation from the negative conditional corresponding to a
given affirmative. As a result, he claims as valid the arguments 'If it's *A*, then (if
it's *B*, then it's *C*), but if it's *B*, then it's not *C*; therefore it's not *A*' and 'If (if
it's *A*, then it's not *B*), then it's *C*, but it's not *C*; therefore if it's *A*, then it's *B*'
(ibid., pp. 285, 298).

Aristotle's logic also lacks propositional negation and includes a principle for
argumentation that reflects this, which would prove fundamental for twelfth-
century logic. In Boethius's obscure report, the principle appears as follows:
"It is not necessary that the same is when the same both is and is not – as
when *A* is, if for this reason it is necessary that *B* is, if the same *A* is not, it is
not necessary that *B* is, that is, that it is because *A* is not" (ibid., p. 222). This
principle is harmless if it is read as insisting that 'if something's A, then it's B'
and 'if something's not A, then it's B' cannot both be true where '*A*' and '*B*'
are general names and the predications are contingent. It becomes extremely
dangerous, however, as we will see, when it is interpreted as maintaining – as it
is by Abaelard – that 'if A, then B' and 'if not:A, then B' cannot both be true
where '*A*' and '*B*' are propositions of any degree of complexity.

Abaelard tries extremely hard to make some sense of Boethius's account of the
hypothetical syllogism; even he can do nothing with it, though, since it is not a
logic of compound propositions. In the end he replaces the various figures with
the schema for *modus ponens*, *modus tollens*, and perfect hypothetical syllogism,
and he converts Boethius's term negations into propositional negations. These

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[9] See Martin, "The Logic of Negation."

are applied to the entire conditional in instances of *modus tollens* where the antecedent is itself a conditional. Disjunction likewise combines propositions of any complexity, with 'either *p* or *q*' equivalent to 'if not *p*, then *q*' (*Dialectica*, pp. 469–532).

Unlike Boethius's treatment of hypothetical syllogisms, the account of topical inference he sketched in *De differentiis topicis* remained important throughout the Middle Ages. Indeed, perhaps the most characteristic feature of twelfth-century logical commentaries is their analysis of arguments in terms of the topical warrant involved. An argument might, for example, rely on a property of definitions, and so hold 'from definition,' or it might rely on an appeal to authority, and so hold 'from authority.' According to Boethius, following Cicero, topical differences (*loci differentiae*) are that from which we draw *argumenta*; they are the reasons that settle questions one way or the other, which we express in arguments. Boethius claims that these *loci* are employed with syllogisms, and he does indeed give some examples of their use to 'justify' inferences that have the form of an Aristotelian categorical syllogism. More often, however, his examples are of *loci* used to warrant enthymematic inferences and to furnish a direct proof of conditional propositions.

Each topical difference is associated with a collection of undemonstrable self-evident principles, known as *maximal propositions*, which state the logical properties of that difference. According to Boethius, these are what do the work in topical arguments. For example, the conditional 'If the world is ruled by providence, then humans are ruled by providence' is proved from the premise that humans are part of the world, appealing to the *locus* 'from an integral whole' and the maximal proposition 'what holds of a whole holds of its parts' (*De topicis differentiis*, pp. 32–3 [1188C]).

Abaelard's development of Boethius's treatments of conditional propositions and the topics into a unified treatment of inference is one of the most remarkable achievements in the history of logic. He connects them by insisting that our only source for true conditionals are certain *loci differentiae* and their maximal propositions. Abaelard is perfectly clear that some arguments and the corresponding conditionals are valid and true simply in virtue of their form. Moreover, he introduces for the first time the modern definition of validity in terms of substitutability (*Dialectica*, p. 255). Categorical syllogisms from Aristotle's three figures, as well as certain syllogisms not mentioned by Aristotle, hold for all uniform substitutions of terms, while *modus ponens*, *modus tollens*, and perfect hypothetical syllogisms hold for all uniform substitutions of propositional contents. Arguments and the corresponding conditionals that satisfy the substitutability criterion and have a canonical form are classified by Abaelard as *perfect entailments* (*inferentiae*). Such entailments are distinguished from *imperfect entailments* (that is, enthymemes and the corresponding conditionals), which

hold only for substitutions of terms that stand in particular relationships (ibid., p. 253). These relationships are some of those that are catalogued by the topical differences. Thus, the relationship of species to genus, according to Abaelard, is such that any substitution for 'human' and 'animal' in the conditional 'If Socrates is human, then Socrates is an animal' results in a true conditional if the first of the new terms is related to the second as species to genus. So, for example, 'If Socrates is a pearl, then Socrates is a stone' holds in virtue of the maximal proposition 'Of whatever the species is predicated the genus is predicated' (ibid., p. 310).

Contrary to Boethius, Abaelard insists that since syllogisms are perfect entailments, they do not require the support of a locus. This claim was controversial in the middle of the twelfth century and identified as one of a number of characteristic doctrines of the school associated with Abaelard and known as the Nominales. Abaelard sets out to establish in his *Dialectica* just which *loci* warrant imperfect entailments. Contrary to some of his contemporaries, he insists that not all can do this, since not all can provide the appropriately necessary connection between terms. For such a connection Abaelard requires not simply inseparability – the usual modern criterion for validity, according to which it is impossible for the first term to apply but not the second – but also that there be a relevant connection in the form of a meaning relation between them. In order for a conditional proposition to be true, the sense, or understanding, of the antecedent must contain that of the consequent; the conditional and the corresponding enthymeme are then imperfect entailments (p. 253). Abaelard distinguishes, however, between true conditionals and valid enthymemes. All that he requires of valid arguments is that a false conclusion never follow from true premises, which is the case if the inseparability condition alone is met. Since the truth of a conditional also requires relevance, he denies that an argument is valid if and only if the corresponding conditional is true; thus, he rejects what we now call the Deduction Principle.

For a conditional to be true, Abaelard requires that the sense or understanding of the antecedent must contain that of the consequent. This formalizes Boethius's notion of natural consequence by connecting it to a distinction, which Boethius takes from Porphyry, between features included in the definition of a natural kind and features that belong accidentally but inseparably to individuals of that kind. These latter inseparable accidents are such that, although their bearer cannot possibly exist without them, it is possible to think of that thing without thinking of those accidents. Porphyry's example, repeated throughout the Middle Ages, is the blackness of a crow; another is the ability of human beings to laugh. For Abaelard, the conditional 'If something is human, then it is able to laugh' is thus false, even though we can always validly argue from something's being human to its being able to laugh. The original

imposition of the term 'human' guarantees that its sense (that is, the under-standing constituted in the mind of someone hearing it) includes being mortal, rational, and an animal – but not being able to laugh. Hence, the conditional 'If something is human, then it is an animal' is true, even though those using the term 'human' perhaps do not realize this.

Abaelard recognizes, and is apparently the first medieval logician to do so, that if satisfaction of the inseparability condition alone were required for the truth of a conditional, then any conditional with an impossible antecedent would be true; his example is 'If Socrates is a stone, then Socrates is an ass' (ibid., p. 285). He does not, however, state the principle that anything follows from an impossibility (*ex impossibili quidlibet*), since this is not true of his own definition of consequence. Just how he does understand consequence is revealed in the arguments that he employs to show that certain of the *loci* do not warrant true conditionals. In particular, the *locus* from opposites – that is, exclusive but not exhaustive terms – would, if accepted, warrant conditionals of the form 'If Socrates is human, then Socrates is not an ass,' while the locus from immediates – that is, exclusive and exhaustive terms – would warrant 'If Socrates is not sick, then Socrates is well.'

Abaelard holds that both of these conditionals are false, as indeed are all conditionals in which the antecedent and the consequent are of different quality (that is, one negative and the other affirmative). This follows because he accepts the propositional version of the principle that Boethius reports from Aristotle and holds himself – namely, that no pair of propositions of the form 'not:$p \rightarrow q$,' '$p \rightarrow q$' nor any pair of the form '$p \rightarrow$ not:q,' '$p \rightarrow q$,' can both be true (ibid., pp. 290–2). These results follow from his accepting as fundamental for the logic of the conditional that no conditionals of the form 'not:$p \rightarrow p$' or '$p \rightarrow$ not:p' are true. (In the twentieth century, logics based on these principles have been called *connexive logics*.)

It is easy to see how the Nominales' thesis that an affirmation does not entail a negation follows, if one also accepts, as Abaelard does, the principles of conditional simplification ($p\&q \rightarrow p$, $p\&q \rightarrow q$), contraposition (($p \rightarrow q$) |– (not:$q \rightarrow$ not:p)), and perfect hypothetical syllogism:

1. $p \rightarrow$ not:q Hypothesis
2. $(p \& q) \rightarrow q$ Simplification
3. $(p \& q) \rightarrow p$ Simplification
4. not:$q \rightarrow$ not:$(p \& q)$ 2., Contraposition
5. $(p \& q) \rightarrow$ not:q 3., 1., Transitivity
6. $(p \& q) \rightarrow$ not:$(p \& q)$ 5., 4., Transitivity

The conclusion (6) is of the forbidden form, and so the hypothesis (1) must be rejected. Likewise, by a similar argument, any conditional with a negative

antecedent and an affirmative consequent must also be rejected. Similar arguments justify Abaelard's rejection of the principles of double negation '$p \rightarrow$ not:not:p' and 'not:not:$p \rightarrow p$.'

Abaelard's arguments are extraordinarily impressive, but his genius was also his downfall. Although Aristotle's principle is reasonable enough for simple terms and contingent predication, as mentioned above, Abaelard applies it to propositions of any degree of complexity – and in this form it is incompatible with the principle of simplification. This was noticed by Alberic of Paris (most likely in the 1130s), who proceeded to demolish Abaelard's logical project with a simple argument. For Abaelard, 'If something's human then it's an animal' is a paradigmatically true conditional. Yet, Alberic argues as follows:[10]

1. If (Socrates is human and not an animal), then Socrates is not an animal [Simplification]
2. If (Socrates is human and not an animal), then Socrates is human [Simplification]
3. If Socrates is human, then Socrates is an animal [Accepted by Abaelard]
4. If Socrates is not an animal, then Socrates is not human [3., Contraposition]
5. If Socrates is not human, then it is not the case that (Socrates is human and not an animal) [2., Contraposition]
6. If (Socrates is human and not an animal), then it is not the case that (Socrates is human and not an animal) [1., 4., 5., Transitivity]

One contemporary source tells us that Abaelard simply conceded this argument and so, in effect, conceded that his logic collapsed in inconsistency. Whatever his response, Alberic's discovery provoked a crisis in logic in the middle of the twelfth century. At this time a number of schools of philosophy flourished in Paris, each associated with a particular master. Manifestos for a number of these schools have survived, in which their logical principles are set out in detail. Each school had its own solution to Alberic's problem. The Nominales seem to have proposed an account of the interaction of negation and copulative conjunction for which simplification does not hold when the conjuncts are of different quality. The Porretani, followers of Gilbert of Poitiers, rejected conditional simplification, like modern connexivists, insisting that both conjuncts in a copulative antecedent must play a role in the inference to the consequent. The most curious solution was that of the Melidunenses, the followers of Robert of Melun, who denied that any conditional with a false antecedent is true, since 'nothing follows from the false.'

Final victory in this debate, however, went to the Parvipontani, the followers of Adam of Balsham (or Adam Parvipontanus, "Of the Little Bridge"), who

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[10] Reported in the *Introductiones Montanae Minores*, ed. L. M. de Rijk, *Logica modernorum* (Assen: Van Gorcum, 1962–7) II.2: 65–6.

simply accepted that the inseparability condition is both necessary and sufficient for the truth of a conditional and the validity of an argument with the corollaries that anything follows from an impossibility, and that a necessity follows from anything. John of Salisbury, writing in 1159, tells us that a former student of his, William of Soissons, went on to study with Adam of Balsham and was responsible for the discovery of a "machine" (that is, an argument) for proving that from one impossibility all impossibilities follow – something that John says he himself could not be compelled to accept (*Metalogicon* II.10). A few decades later, however, towards the end of the twelfth century, Alexander Neckham observes that it surprises him that anyone denies that everything follows from an impossibility, and he provides us with the argument to prove that this is so for contradictory opposites:

> Is it not the case that if Socrates is a human and Socrates is not a human, then Socrates is a human? But if Socrates is a human, then Socrates is a human or a stone; therefore, if Socrates is a human and Socrates is not a human, Socrates is a human or a stone. But if Socrates is a human and Socrates is not a human, then Socrates is not a human; therefore if Socrates is a human and Socrates is not a human, then Socrates is a stone. With a similar argument it can be proved that if Socrates is a human and Socrates is not a human, then Socrates is a nanny goat . . . Do you not see, therefore, how from the impossibility that Socrates is a human and Socrates is not a human, there follows anything?
>
> (*De naturis rerum*, ed. Wright, pp. 288–9)

This would prove to be the standard position on inference for the rest of the Middle Ages. For the truth of a conditional and the validity of an argument, all that is required is that it not be possible for the antecedent to be true and the consequent false at the same time. For the truth of a disjunction, all that is required is simply that one of the disjuncts be true. This is just what is required in twentieth-century modal logic to construct the famous *Lewis Argument*, showing that anything follows from a contradiction. As we have seen, this was part of logic from the twelfth century on.[11]

OBLIGATIONES

Though later logicians agreed that the inseparability of the truth of the consequent from that of the antecedent is necessary and sufficient for there to be a relation of consequence, they continued to distinguish between accidental and natural consequences in the way that Abaelard had until the beginning of the

[11] See Christopher J. Martin, "William's Machine," *Journal of Philosophy* 83 (1986) 564–72.

fourteenth century (see Chapter 13). Natural consequence adds to insepara-
bility the requirement of relevance, and such consequences were employed in
arguing about what follows from hypotheses acknowledged to be impossible.
According to Boethius in *De hypotheticis syllogismis,* we are allowed to posit such
hypotheses, and we may reason coherently about them. (An example is found
in his treatise *Quomodo substantiae* where he supposes that God does not exist
and explores the question of whether and how beings would be good in such
an impossible situation.)

   The second half of the twelfth century saw the regimentation of the rules
for exploring an impossible hypothesis, the so-called *positio impossibilis*. These,
along with the rules for reasoning under a false but possibly true hypothesis,
the *positio falsa*, form part of the discipline of constrained argumentation known
as *obligationes*, or the *ars obligatoria*. In these procedures, an opponent asks a
respondent to accept that some hypothesis, the *positum*, is true. If he does,
the opponent goes on to propose a series of claims to which the respondent
must reply consistently with the *positum* and all of his earlier responses. If a
given proposal neither follows from nor is inconsistent with the set of earlier
responses, the respondent should grant it if it is in fact true and deny it if it is
false. The role of the respondent is to preserve the consistency of his answers;
he fails if he contradicts himself.

   In *positio impossibilis*, the respondent cannot allow an appeal to the princi-
ple that anything follows from an impossibility but rather must concede only
proposals that follow from what has gone before in a natural consequence. Just
what counts as a natural consequence will thus determine what holds under an
impossible hypothesis. In one of the earliest treatises on *positio impossibilis*, the
Tractatus Emmeranus,[12] the relevant connection of containment required for such
consequence is said to preclude consequences with an affirmative antecedent
and a negative consequent. The treatise thus seems to come from Nominales
or from the time when their logic was still well known, so not much later than
the third quarter of the twelfth century. *Positio impossibilis* was employed in the
thirteenth century in the solution of theological problems involving impossi-
ble hypothesis, but its use became controversial in the fourteenth century and
eventually it disappeared from the logic textbooks.

   From the same period as the *Tractatus Emmeranus* we have a related text, the
Obligationes Parisiensis,[13] in which we find, perhaps for the first time, a version

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[12] See de L. M. Rijk, "Some Thirteenth Century Tracts on the Game of Obligation I," *Vivarium* 12
   (1974) 94–123.
[13] See L. M. de Rijk, "Some Thirteenth Century Tracts on the Game of Obligation II," *Vivarium* 13
   (1975) 22–54.

of one of the glories of medieval logic: the discussion of the insoluble sentence 'this sentence is false.' The treatise explores the strategy of leading a respondent to contradict himself in a *positio falsa* by constructing a *positum* that is (or may become during the time that he is obligated to respond consistently) equivalent to 'the *positum* is false.' Once the *positum* becomes equivalent to 'the *positum* is false,' the respondent is bound to concede both that the *positum* is true (because he is obligated to this), and that the *positum* is false (because the *positum* says of itself that it is false and has been conceded to be true). The skill of the opponent lies in concealing the self-referential consequences of his *positum* by asking the respondent, for example, to admit as a *positum* that the *positum* is inconsistent with his being a human. Since this is certainly possible, it should be admitted by the respondent. The treatise then demonstrates in an argument of many steps that the respondent may be led to contradict himself, but we are told eventually that the proper response to the sophism is that at a crucial point the respondent should refuse the opponent's proposal and reply rather that he is simply babbling. This is referred to as "*cassatio*," the earliest of many solutions to the problem of insolubilia.[14]

The theory of argument and the conditional was developed to a very high degree of sophistication by the second half of the twelfth century. It remained essentially unchanged until Ockham's rejection of John Duns Scotus's metaphysics compelled him to construct a quite new account of consequence. Scotus holds, in effect, that items are formally but not existentially distinct if they are accidentally but not naturally inseparable. That is, since being able to laugh follows from being human in an accidental but not a natural consequence, there is a formal distinction between them. In order to do away with such arguments for the formal distinction, Ockham introduces a new definition of consequence that requires only inseparability but that excludes the trivial cases that hold merely in virtue of having an impossible antecedent or a necessary consequent. Such trivial consequences he classifies as *material* while all others are *formal* (see Chapter 13). After Ockham there is no mention of natural consequences nor any mention in the logic textbooks of impossible *positio.*[15]

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[14] See Christopher Martin, "Obligations and Liars," in M. Yrjönsuuri (ed.) *Medieval Formal Logic: Consequences, Obligations, Insolubles* (Dordrecht: Reidel, 2001) 63–94.

[15] See Christopher Martin, "Formal Consequence in Scotus and Ockham: Towards an Account of Scotus' Logic," in O. Boulnois *et al.* (eds.) *Duns Scot à Paris 1302–2002* (Turnout: Brepols, 2005) 117–50.

TERMINIST LOGIC

E. JENNIFER ASHWORTH

Terminist logic is a specifically medieval development.[1] It is named from its focus on terms as the basic unit of logical analysis, and so it includes both supposition theory, together with its ramifications,[2] and the treatment of syncategorematic terms. It also includes other areas of investigation not directly linked with Aristotelian texts, notably obligations, consequences, and insolubles (see Chapters 10, 13, and 14).

Logic was at the heart of the arts curriculum, for it provided the techniques of analysis and much of the vocabulary found in philosophical, scientific, and theological writing. Moreover, it trained students for participation in the disputations that were a central feature of medieval instruction, and whose structure, with arguments for and against a thesis, followed by a resolution, is reflected in many written works. This practical application affected the way in which logic developed. While medieval thinkers had a clear idea of argumentation as involving formal structures, they were not interested in the development of formal systems, and they did not see logic as in any way akin to mathematics.

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[1] Most of the literature dealing with terminist logic is in the form of articles and book chapters. Two bibliographical guides are E. J. Ashworth, *The Tradition of Medieval Logic and Speculative Grammar from Anselm to the End of the Seventeenth Century. A Bibliography from 1836 Onwards* (Toronto: Pontifical Institute of Mediaeval Studies, 1978), and Fabienne Pironet, *The Tradition of Medieval Logic and Speculative Grammar from Anselm to the End of the Seventeenth Century. A Bibliography (1977–1994)* (Turnhout: Brepols, 1997). The classic source of material is L. M. de Rijk, *Logica modernorum: A Contribution to the History of Early Terminist Logic* (Assen: Van Gorcum, 1962–7) vol. I: *On the Twelfth-Century Theories of Fallacy*, and vol. II: *The Origin and Early Development of the Theory of Supposition*. Translations of various texts are found in N. Kretzmann and E. Stump (eds.) *The Cambridge Translations of Medieval Philosophical Texts*, vol. 1: *Logic and the Philosophy of Language* (Cambridge: Cambridge University Press, 1988). Useful discussions are provided by P. Osmund Lewry, "Grammar, Logic and Rhetoric 1220–1320," in J. Catto (ed.) *The History of the University of Oxford*, vol. I: *The Early Oxford Schools* (Oxford: Clarendon Press 1984) 401–33, and by Norman Kretzmann *et al.* (eds.) *The Cambridge History of Later Medieval Philosophy: From the Rediscovery of Aristotle to the Disintegration of Scholasticism. 1100–1600* (Cambridge: Cambridge University Press, 1982).

[2] Not all of these ramifications will be discussed below. I shall omit the discussions of non-referring terms and of relations.

Logic involved the study of natural language, albeit a natural language (Latin) that was often regimented to make formal points, and it had a straightforwardly cognitive orientation. The purpose of logic was to separate the true from the false by means of argument, and to lead from known premises to a previously unknown conclusion. In this process, the avoidance of error was crucial, so there was a heavy emphasis on the making of distinctions and on the detection of fallacies. The procedures involved often have the appearance of being ad hoc, and modern attempts to draw precise parallels between medieval theories as a whole and the results of contemporary symbolic logic are generally doomed to failure, even though there are many fruitful partial correlations.

The core of the logic curriculum was provided by the works of Aristotle with supplements from Boethius, Porphyry, and the anonymous author of the *Liber sex principiorum* (about the last six categories), once attributed to Gilbert of Poitiers. The *logica vetus*, or Old Logic, included Porphyry's *Isagoge*, Aristotle's *Categories* and *De interpretatione*, and the *Liber sex principiorum*. During the twelfth century the *logica nova*, or New Logic, was rediscovered. It included the rest of the Organon, namely Aristotle's *Topics*, *Sophistical Refutations*, *Prior Analytics* and *Posterior Analytics*. Boethius's discussion of Topics, or ways of finding material for arguments, was also part of the curriculum, though in the fourteenth century his *De differentiis topicis* was largely replaced by the account of Topics given by Peter of Spain in his *Tractatus*. Together these works provided a basis for the study of types of predication, the analysis of simple categorical propositions and their relations of inference and equivalence, the analysis of modal propositions, categorical and modal syllogisms, fallacies, dialectical Topics, and scientific reasoning as captured in the demonstrative syllogism. The texts were lectured on and were the subject of detailed commentaries. Nonetheless, a need was felt for simplified introductions to the material and for the discussion of issues that were at best only hinted at by Aristotle.

NEW DEVELOPMENTS

The new developments of the late twelfth and thirteenth centuries were presented via new techniques and new genres of writing. The new techniques grew out of late twelfth-century use of *instantiae* or counterexamples, and they involved the use of *sophismata* or puzzle-cases intended to draw attention to difficulties and weaknesses in logical definitions and rules (see Chapter 14). The new texts fell into two groups: the *summulae* or general introductions, and shorter texts devoted to single issues. These writings are referred to in various ways. De Rijk has popularized a late fifteenth-century use of the phrase *logica modernorum* (the logic of the moderns) as a label for the *summulae* and for

individual works on supposition theory and related issues. The latter are often called *parva logicalia* (the 'little logicals'), and sometimes the *parva logicalia* are also taken to include the texts on consequences, insolubles, and obligations.[3]

Important *summulae* were written in the fourteenth century by William of Ockham, John Buridan and Albert of Saxony (see Chapter 12), but here I shall focus on six of the extant thirteenth-century *summulae*, three associated with Oxford and three associated with continental Europe. The earliest English text chosen is the anonymous *Logica* "*Cum sit nostra*," so called after its opening words, which may have been written in the late twelfth or the early thirteenth century, and which was still being used in one form or another at Oxford at the end of the thirteenth century.[4] It was followed by the *Introductiones in logicam* of William of Sherwood, written in the late 1230s or 1240s, and the *Summulae dialectices* of the Franciscan Roger Bacon, written around 1250. The most prominent continental work is the highly successful *Tractatus*, also called *Summulae logicales*, by Peter of Spain, probably written in the south of France or northern Spain between 1230 and 1245. Peter of Spain used to be identified with the Portuguese scholar who became Pope John XXI, but recent research has concluded that he was a Spanish Dominican, though attempts to identify him more precisely have so far failed.[5] The slightly later *Summe Metenses* has been identified as the work of Nicholas of Paris, and dates from 1240–50. Finally, there is the *Logica* of Lambert, probably begun in the 1250s and probably issued in its final form between 1263 and 1265. The author is often taken to be the Dominican Lambert of Auxerre, but could well be his contemporary, Lambert of Lagny. All these uncertainties of authorship and dating make it somewhat difficult to trace lines of influence, but with respect to content we can be clear. All the *summulae* contain material explaining elements of the Aristotelian curriculum, though the *Logica* "*Cum sit nostra*" and William of Sherwood omit the categories and none takes up demonstrative logic, the subject of the *Posterior Analytics*. In addition, they all contain the material about supposition and related topics that will be discussed in the last sections of this chapter.

Supposition theory focused on the nouns and adjectives that function as subjects and predicates of propositions, and these categorematic terms were contrasted with the syncategorematic terms that exercise some logical function

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[3] For a discussion of this vocabulary, see Neal Gilbert, "Ockham, Wyclif, and the 'Via Moderna'," *Miscellanea Mediaevalia* 9 (1974) pp. 111–15, and H. A. G. Braakhuis, "School Philosophy and Philosophical Schools: The Semantic-Ontological Views in the Cologne Commentaries on Peter of Spain, and the 'Wegestreit'," *Miscellanea Mediaevalia* 20 (1989) esp. pp. 1–2 and 6.

[4] For an edition (excluding the final tract) see de Rijk, *Logica modernorum* II.2: 413–51.

[5] See Angel d'Ors, "Petrus Hispanus O.P., Auctor Summularum," *Vivarium* 35 (1997) 21–71, 39 (2001) 209–54, 41 (2003) 249–303.

within propositions. Syncategorematic terms included logical connectives such as 'and' and 'if-then,' quantifiers such as 'all' and 'some,' and negations such as 'none' and 'not,' but they also included the verbs 'begins' and 'ceases' because their implicit reference to past and future times affected the validity of inferences. One can argue 'I see Plato, therefore I see a man' but not 'I begin to see Plato, therefore I begin to see a man,' for I may have been looking at Socrates before I began to look at Plato. From the late twelfth century on, first in England and then on the continent, short texts were devoted to syncategorematic terms. The *Syncategoremata Monacensia* is a very early English text, and later texts were written by Peter of Spain, William of Sherwood, Nicholas of Paris, and Henry of Ghent.[6] These texts did not stand alone, in that they were closely associated with treatises on sophismata, on *abstractiones*, and on *distinctiones*, in all of which difficulties were solved by appeal to logical rules and distinctions relating to syncategorematic terms (see Chapter 14).

The discussion of *syncategoremata* was not entirely distinct from the discussion of categorematic terms. Some terms such as 'infinite' could be construed either categorematically or syncategorematically. For instance, in the invalid inference 'infinite is number, therefore < a > number is infinite,' the antecedent is taken syncategorematically, to show that one can keep adding to the number series, while the consequent indicates (falsely, according to medieval logicians) that there is a number which is actually infinite. Moreover, as we shall see, parts of supposition theory depend on the presence of syncategorematic terms. This gave rise to some differences of opinion. Thus in the first half of the thirteenth century the word '*omnis*' ('all' or 'every') was discussed, along with many other distributive terms, in the tracts on distribution associated with supposition theory in the *summulae* of Peter of Spain, Nicholas of Paris, and Lambert, but did not appear in the treatises on *syncategoremata* by Peter of Spain and Nicholas of Paris. However, it was discussed in the treatises on *syncategoremata* by the Englishmen William of Sherwood and Robert Bacon (not to be confused with Roger Bacon).[7] Moreover, a section on distribution is absent from William's *Introductiones*, and also from the *Logica "Cum sit nostra"* and the *Sumulae dialectices* of Roger Bacon.

Treatises on *syncategoremata* were most prominent in the thirteenth century, but they did not altogether disappear in the fourteenth century. For instance, the late fourteenth-century English logician Richard Lavenham wrote one.

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[6] For translations of *Syncategoremata Monacensia* and material from Nicholas of Paris, see Kretzmann and Stump, *Cambridge Translations*, vol. I.

[7] See H. A. G. Braakhuis, "English Tracts on Syncategorematic Terms from Robert Bacon to Walter Burley," in H. A. G. Braakhuis *et al.* (eds.) *English Logic and Semantics from the End of the Twelfth Century to the Time of Ockham and Burleigh* (Nijmegen: Ingenium Publishers, 1981) pp. 138–40.

However, two other forms of writing come to the fore in the fourteenth century. First, there are a lot of short treatises on particular syncategorematic terms, including 'begins' and 'ceases' (*incipit* and *desinit*), and terms with the power of producing purely confused supposition (see below). Second, and most important, are the treatises on the proofs of terms (or proofs of propositions), whose best-known example is the *Speculum puerorum* of Richard Billingham, an Oxford author of the mid-fourteenth century. In this context, a proof seems to be a method of clarifying a sentence containing a particular sort of term, or of showing how one might justify that sentence. There were three groups of terms. Resoluble terms are those whose presence calls for explanation or clarification through ostensive reference, as captured in an expository syllogism (that is, one with singular terms). Thus 'A man runs' is resolved into the expository syllogism 'This runs; and this is a man; therefore a man runs.' Exponible terms are those whose presence calls for exposition of the sentence in terms of a set of equivalent sentences. For instance, the sentence 'Only a man is running,' which contains the exclusive term 'only,' is expounded as 'A man is running and nothing other than a man is running.' Other exponible terms are exceptives, such as 'except,' reduplicatives, such as 'inasmuch as,' 'begins' and 'ceases,' 'infinite,' and so on. In fact, they are the very terms figured prominently in treatises on *syncategoremata*. Finally, there are 'official' or 'officiable' terms (*officiales*, *officiabiles*), so called because they performed a function (*officium*). They included any term that governed a whole sentence or that treated a whole sentence as modifiable, such as modal terms ('necessarily', 'possibly'), and such terms as 'know,' 'believe,' 'promise,' 'desire,' and 'owe.' Analysis of sentences containing such terms shows why they are referentially opaque when taken in the compounded sense. Treatises on proofs of terms were very popular into the late fourteenth and fifteenth century, but by the late fourteenth century they were joined by treatises which dealt with exponible terms alone, including one by Peter of Ailly and another falsely attributed to Peter of Spain.[8]

SIGNIFICATION

In order to understand supposition theory and its ramifications, we first have to consider the central semantic notion of signification. As Paul Spade has pointed out, we must not confuse signification, when presented as what Spade calls "a

[8] For more discussion of all this material, see E. J. Ashworth and Paul Spade, "Logic in Late Medieval Oxford," in J. I. Catto and R. Evans (eds.) *The History of the University of Oxford*, vol. II: *Late Medieval Oxford* (Oxford: Clarendon Press, 1992) 35–64.

psychologico-causal property of terms," with meaning.[9] The meaning of a term is not an entity to which the term is related in some way, but one can say that an utterance signifies or makes known an entity, whether conceptual or real, universal or particular. Moreover, meaning is not transitive, but signification is. Lambert wrote: "An utterance that is a sign of a sign – i.e., of a concept – will be a sign of the thing signified – i.e., of the thing; it is, however, a sign of the concept directly but a sign of the thing indirectly."[10] This is not to deny that medieval thinkers had a general notion of meaning. They did talk about sense (*sensus*), about the thought or content (*sententia*) of a phrase, and about the force of a word (*vis verbi*), and they often used the word *significatio* itself along with its cognates quite widely.

If we take signification in a narrow sense, as a technical notion, we find that there were two not entirely compatible approaches, each based on a sentence from Aristotle, and each emphasizing the role of concepts, whether the hearer's or the speaker's. According to the first approach, based on *De interpretatione* 16b19–21, to signify is to generate or establish an understanding. This definition places emphasis on the hearer, whereas the second approach ties the significative power of an utterance to its making known the speaker's concepts. The crucial text is *De interpretatione* 16a3–4, read as saying "Spoken words are signs of concepts." Aristotle, as interpreted by medieval commentators, had gone on to say that concepts were similitudes or signs of things (*De interpretatione* 16a6–8), and this raised the question of what is meant by 'thing.' In other words, what is it that we understand when an utterance such as 'man' or 'animal' establishes an understanding? The usual assumption in the thirteenth century was that the understanding is of some kind of universal, an essence or common nature, and when logicians asked whether spoken words primarily signified concepts or things, the issue was whether concepts or common natures should be taken as the primary significates of an utterance. Whatever the final view adopted, individual objects were not themselves direct or primary significates. Indeed, Lambert makes it clear that a term such as 'man' signifies humanity, but supposits for Plato and Socrates (ed. Alessio, p. 206).

The terms of the debate were to change completely in the fourteenth century, first with the insistence of Scotus, like others before him, that individuals can be grasped by the intellect, but more especially with the reappearance of nominalism, the doctrine that all that exists are individual things, and that only concepts can be common or universal (see Chapters 12 and 48). The question

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[9] Paul Spade, "The Semantics of Terms," in Kretzmann *et al.*, *The Cambridge History of Later Medieval Philosophy*, p. 188.
[10] Tr. Kretzmann and Stump, in *Cambridge Translations*, vol. I, p. 105; ed. Alessio, p. 206.

whether words primarily signify concepts or things was now construed as the question: does a word signify an individual thing in the world directly, or does it signify first the concept that is a necessary condition for signification? Even so, both nominalists and realists could agree that when we say 'Some men are running,' we are talking about individual men and their actions rather than about concepts or about universal natures.

SUPPOSITION THEORY

The roots of supposition theory can be found in grammar and in logic, particularly in reaction to the absorption of Aristotle's *Sophistical Refutations* and the general problem of fallacies, and perhaps also in theology, though here there is not sufficient evidence to determine how far logicians and theologians interacted, or who influenced whom. It is certainly the case that theologians felt a need to determine types of reference, particularly in the area of Trinitarian doctrine, where distinctions have to be made between the Godhead or essence, the three Persons, and the Notions, that is, those relations such as paternity and sonship which constitute the three Persons. The theologian Stephen Langton, probably writing before 1207, asserted that there were three modes of supposition, essential, personal, and notional (*De persona*, ed. Bieniak, p. 99), and William of Auxerre made the same claim in his *Summa aurea*, adding that the first two modes are natural, in that they also apply to created things (ed. Ribaillier *et al.*, I: 113–14). Later, Aquinas uses various elements of supposition theory in his discussion of the Trinity in his *Summa theologiae*.[11]

The vocabulary of supposition theory seems to be first found in the grammarians. Peter Helias, the twelfth-century commentator on Priscian, used the term *suppositum* semantically, to indicate the bearer of a form or property,[12] but shortly afterwards, from the 1260s onward, grammarians also used the notion purely syntactically. The verb *supponere* meant "to put as a subject term," and it was contrasted with *apponere*, "to put as a predicate term."[13] The terminology made its way into logical treatises, and both uses are needed to make sense of thirteenth-century discussions, particularly of the questions whether

[11] See, e.g., *Summa theol.* 1a q. 39. The reference to natural supposition in 1a 39.5c should not be taken as a reference to natural supposition in the logicians' sense to be discussed below.

[12] See, e.g., Peter Helias, *Summa super Priscianum*, ed. Reilly, p. 891. For discussion, see Sten Ebbesen, "Early Supposition Theory (12th–13th Century)," *Histoire Epistémologie Langage* 3 (1981) 35–48. Cf. Aquinas, *Summa theol.* 3a 2.3c on why "this man" is called a *suppositum*.

[13] See C. H. Kneepkens, "'Suppositio' and 'supponere' in 12th-Century Grammar," in J. Jolivet and A. de Libera (eds.) *Gilbert de Poitiers et ses contemporains: aux origines de la Logica modernorum* (Naples: Bibliopolis, 1987) 325–51. The passage about *supponere* and *apponere* frequently attributed to Peter Helias is a later interpolation (ed. Reilly, p. 448, apparatus).

supposition is only a property of substantival nouns, and whether supposition is only a property of grammatical subjects.

In logical treatises, the notion of *suppositio* was joined with the notions of *copulatio* and *appellatio*, and all three terms were used in various ways. The *Logica* "*Cum sit nostra*" starts by defining supposition in terms of signification: it is the designation or signification of a substantival term. It occurs only when something is put under an *appositum* or predicate, and so it is also described as the signification of a term that can be a subject (*sermonis subicibilis significatio*). In turn, *appellatio* is the time-free signification of a predicable term, and also what a common term has when compared to its inferiors. *Copulatio* is properly speaking the property of a verb, since it is the time-bound signification of a predicable term, and verbs are characterized by containing reference to time.[14] William of Sherwood has a somewhat different approach. Supposition is a property of substantival terms, but in actual supposition it characterizes subjects. If one considers habitual supposition, a term's aptitude for supposition, then supposition is the signification of something as subsistent, and can belong to both subjects and predicates. *Copulatio* is a property of adjectives and participles as well as of verbs, and *appellatio* belongs to terms referring to present existents (*Introductiones*, ed. Brands and Kann, pp. 132–4, 154–6). Peter of Spain and Lambert are clear that supposition is not a type of signification, but rather a property of signifying terms. For them, supposition is the acceptance of a substantival term for something, so it is not necessarily propositional and it can belong to both subjects and predicates; *copulatio* is the acceptance of an adjectival term for something; and appellation is the acceptance of a term for existent things.[15] Yet other uses of the three notions can be found, but in what follows I shall ignore these refinements, and speak as if supposition is a general property of subjects and predicates, nouns and adjectives. And since this broad usage becomes quite standard, leaving little room for *copulatio* or appellation in the sense just specified, I will likewise set aside these latter two notions.

SUPPOSITION THEORY AND TYPES OF REFERENCE

One can think of supposition theory as a theory of reference, but it is not a theory in the sense of an explanation of how it is that a linguistic expression designates one or more particular things in the world. Instead, supposition

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[14] *Logica* "*Cum sit nostra*" in de Rijk, *Logica modernorum* II.2: 446–51.

[15] Peter of Spain, *Tractatus*, ed. de Rijk, pp. 80, 197; Lambert, *Logica*, ed. Alessio, pp. 206–7, 211. Lambert recognizes a wider sense of supposition that includes adjectives (p. 207), and he also recognizes the grammatical sense of appellation by which a common term appellates its inferiors.

theory is concerned with establishing what type of thing a term can refer to, given the predicate it is associated with, and what range of things it can extend over, given the presence or absence of ampliative and restrictive terms. These terms have the function of extending or limiting the range of reference. Thus 'can' is an ampliative term in the sentence 'A man can run,' since it extends the reference of 'man' to future men, and 'white' is a restrictive term when it appears in the subject phrase 'white men,' since it limits the reference of 'men' to a subgroup.

Supposition was normally divided into material, simple, and personal supposition. A term has material supposition when it is associated with such predicates as 'has three letters' and 'is a noun.'[16] These predicates have in common that they mention some feature of a term or its equiforms without using it in accordance with its specific signification. However, it is a mistake to think that material supposition was the medieval way of talking about modern quotation devices, though the not infrequent use of the French word 'li' (or 'ly') to indicate material supposition looks very like such a device. A term with material supposition was an ordinary significative term in a special sentential context; it was not a new term formed by producing the name of a name, as in ' "Dog" is the name of a dog.' Nor did every logician recognize material supposition explicitly. Both Roger Bacon and Lambert included it under simple supposition,[17] and both the *Logica* "*Cum sit nostra*" and Peter of Spain omitted it.

Simple supposition occurs when a name is taken for its significate, as in 'Man is a species.' One problem here was ontological. For nominalists, nothing could refer to a common nature, since common natures did not exist (see Chapter 12), and so some other account had to be found. Another problem has to do with the reference of terms in such sentences as 'Man is the worthiest creature among creatures' and 'Pepper is sold here and at Rome.' William of Sherwood distinguished three kinds of simple supposition (*Introductiones*, pp. 140–2). In 'Man is a species,' there is no reference to individuals; in 'Man is the worthiest creature among creatures,' the inclusion of individuals is indicated by the recommended addition of the phrase 'insofar as man' to the subject; and in 'Pepper is sold here and in Rome,' a vague or indeterminate relation of the significate to individuals is indicated, given that some peppercorns are sold here and some other peppercorns are sold in Rome. A third problem is found in Peter of Spain, who assigned simple supposition to the predicates of universal affirmative propositions (*Tractatus*, pp. 81, 83–8). This made sense

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[16] For full discussion, see Claude Panaccio and Ernesto Perini-Santos, "Guillaume d'Ockham et la *suppositio materialis*," *Vivarium* 42 (2004) 202–24.

[17] Roger Bacon, *Summulae* II (ed. de Libera, p. 266); Lambert, *Logica*, p. 209.

insofar as a categorical proposition ascribes a property or form to a subject, but was unhelpful when accounting for the validity of such inferences as 'All A is B, therefore some B is A,' where the second occurrence of B must have personal supposition. Here it is relevant to note that medieval logicians did not regard inherence and identity accounts of propositional truth as mutually exclusive.[18] Indeed, they go together. Something is identical to an animal only if it has a certain substantial form, and something is identical to a white thing only if it has a certain quality (see also Chapter 12).

This brings us to personal supposition, whereby terms are taken to refer to individuals, as in 'Some man is running.' Peter of Spain and Lambert distinguished accidental personal supposition, in which the range of reference was restricted by the propositional context, from natural supposition, which allowed a term to have pre-propositional reference to all its referents, past, present, and future.[19] Nor did natural supposition belong only to terms standing alone, for John le Page, writing *ca.* 1235, said, like Buridan in the fourteenth century, that terms had natural supposition in universal necessary truths.[20] English logicians in the thirteenth century did not allow natural supposition. For them, all supposition was contextual, and the notion of ampliation had to be used when the subject of a proposition was to extend beyond present existent things. Moreover, they saw present-tense verbs as non-restrictive, while the Parisians saw them as restrictive. That being said, there was general agreement about types of restriction and ampliation. As we have already seen, the verb 'can' ampliates the range of reference, while the addition of an adjective, as in 'A white man runs,' restricts the range of reference. However, logicians explicitly denied that the predicate had a restrictive role.[21] In 'A man is white,' the range of reference is all men, not just white men.

TYPES OF PERSONAL SUPPOSITION

The doctrines of ampliation and restriction were not sufficient to answer such questions as why it is impossible to infer 'There is a head that everyone has' from 'Everyone has a head,' or 'There is a horse that I promise to you' from

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[18] See John Malcolm, "A Reconsideration of the Identity and Inherence Theories of the Copula," *Journal of the History of Philosophy* 17 (1979) 383–400.

[19] Peter of Spain, *Tractatus*, p. 81; Lambert, *Logica*, p. 208.

[20] See Alain de Libera, "Supposition naturelle et appellation: aspects de la sémantique parisienne au XIIIe siècle," *Histoire Epistémologie Langage* 3 (1981) 63–77, and "La littérature des *Sophismata* dans la tradition terministe parisienne de la seconde moitié du XIIIe siècle," in M. Asztalos (ed.) *The Editing of Theological and Philosophical Texts from the Middle Ages* (Stockholm: Almqvist and Wiksell International, 1986) 213–44.

[21] Peter of Spain, *Tractatus*, p. 201; Lambert, *Logica*, p. 217; Bacon, *Summulae* II, pp. 280–2.

'I promise you a horse,' or 'Every donkey belonging to some man is running' from 'Every man has a donkey which is running.' In order to deal with these and other problems, personal supposition was divided into three types, discrete, determinate, and confused (a word that indicates plurality), and rules were provided to govern inferences involving these types.

Of the three standard types of personal supposition, discrete is the simplest. A term such as 'Socrates' or 'this man' has discrete supposition since it supposits for just one individual. A term has determinate supposition when it supposits for many things but its truth requires reference to just one individual, no matter who, while leaving open the possibility that more individuals are involved. The propositions 'A man is running' (*homo currit*) and 'Some man is running' (*aliquis homo currit*) are true if at least one man, no matter who, is running, and Roger Bacon remarked that a term with determinate supposition supposits for an individual in a disjunctive manner (*sub disiunctione*) (*Summulae* II, p. 274). It is important to emphasize the phrase "no matter who," since a distinction was made between sentences related to their non-linguistic context and sentences not so related. According to Peter of Spain, Nicholas of Paris and Lambert, if I say *Rex venit* ('< A > king is coming'), common usage indicates that reference should be restricted to the local ruler.[22] However, logicians did not usually conceive of context so broadly, but were generally concerned only with the intra-propositional relations of terms.

Confused supposition differs from determinate supposition with respect to truth conditions, and it is further divided into two subtypes, confused and distributive supposition and merely confused supposition. Leaving aside the problem of common nouns with only one referent, such as 'sun' and 'phoenix' (to use medieval examples), standard common nouns extend over a plurality of things, and the truth of many propositions requires reference to more than one member of that plurality. In some cases, truth requires exhaustive reference. Thus, 'Every A is B' is true only if every single individual A is a B, and the truth of 'No A is B' requires both that every single A will fail to be a B and that every single B will fail to be an A. Hence the subjects of universal affirmative propositions were said to have confused and distributive supposition, as were the subjects and predicates of universal negative propositions. This kind of supposition allowed for descent to individuals. For instance, from 'All men are animals' one can infer that Socrates is an animal, and more generally one can infer that this man is an animal and the other man is an animal, and so on (*et sic*

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[22] Peter of Spain, *Tractatus*, pp. 207–8; Nicholas of Paris (ed. de Rijk, *Logica modernorum* II.1: 463); Lambert, *Logica*, pp. 226–7.

de singulis).²³ Such descent could be impeded by other syncategorematic terms. For instance, one cannot argue from 'Only every A is B' to 'Only this A is B.'

Merely confused supposition was introduced to deal with the case in which reference is made to more than one member of a plurality without being exhaustive.²⁴ Consider the predicate of the universal affirmative proposition, 'All men are animals.' For this proposition to be true, each man must be identical to some animal or other, and a plurality of animals must be involved, since we will not want to say that every man is identical to one and the same animal. Nonetheless, even when each man has been identified with some distinct animal, all the non-human animals will be left over, and no descent to a conjunction or disjunction of sentences about individual animals is possible.

Originally, the notion of descent to individuals had been introduced in relation to confused and distributive supposition in order to further clarify what inferences were possible. During the fourteenth century, the notion of descent was applied to determinate and merely confused supposition as well, and gave rise to elaborate accounts of how propositions with quantified terms related both to conjunctions or disjunctions of propositions with individual terms and to propositions with disjoint terms (as in 'Socrates is this animal or that animal or the other animal').²⁵ Another later development was the recognition of propositions with conjoint terms as a tool for analyzing a fourth type of non-discrete supposition, called collective supposition.²⁶ This type applied to 'apostles' in 'All the apostles were twelve,' an example used in the thirteenth century to distinguish between collective and distributive senses of *omnis*.²⁷

THE FATE OF TERMINIST LOGIC

Terminist logic as described above was dominant for most of the thirteenth century, and it continued to be prevalent in Oxford into the fourteenth century, though without any notable new developments. However, during the last decades of the thirteenth century and the beginning of the fourteenth century,

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²³ See, e.g., *Logica* "*Cum sit nostra*" in De Rijk, *Logica modernorum* II.2: 447; Bacon, *Summulae* II, p. 267.

²⁴ Lambert writes "in connection with such supposition a common term is not interpreted for all its supposita" (tr. Kretzmann and Stump, p. 112; ed. Alessio, p. 211).

²⁵ See Paul Spade, "The Logic of the Categorical: The Medieval Theory of Descent and Ascent," in N. Kretzmann (ed.) *Meaning and Inference in Medieval Philosophy* (Dordrecht: Kluwer, 1988) 187–224.

²⁶ See Stephen Read, "Thomas of Cleves and Collective Supposition," *Vivarium* 29 (1991) 50–84.

²⁷ Peter of Spain, *Tractatus*, p. 210; Lambert, *Logica*, pp. 231–2. (The example is further discussed in Chapter 14.)

modist logic predominated in Paris, Erfurt, and Bologna (see Chapter 15), and it was only with the work of Ockham and Buridan that there was a general revival of supposition theory. The late fifteenth and early sixteenth centuries saw a number of interesting developments,[28] and, despite the attacks of the humanists, some elements of supposition theory persisted into the seventeenth century.

[28] See E. J. Ashworth, *Studies in Post-Medieval Semantics* (London: Variorum Reprints, 1985).

NOMINALIST SEMANTICS

GYULA KLIMA

OCKHAM'S SEMANTIC INNOVATIONS

The most significant development in the history of late medieval philosophy and theology was the emergence of late medieval nominalism, eventually culminating in the quasi-institutional separation of the realist "old way" (*via antiqua*) and the nominalist "modern way" (*via moderna*).[1] This chapter will confine itself to analyzing the fundamental changes in semantic theory initiated by William of Ockham, and brought to fruition by John Buridan. In order to be able to see the significance of these conceptual changes against the background of the older theory, the discussion begins with a brief sketch of those common characteristics of the "old semantics" that Ockham abandoned. After presenting Ockham's main reasons for breaking with the older model and sketching his alternative ideas, the discussion proceeds to a more detailed analysis of Buridan's radically new approach to constructing semantic theory.

The term 'realism' in connection with medieval philosophy is generally used to indicate a metaphysical position concerning universals, namely, the assumption of the existence of some abstract, universal entities expressed by our universal terms, such as 'man' or 'animal.'[2] But medieval realism as a semantic conception is more than just a theory of universals; it is rather a comprehensive conception of the relationships between language, thought, and reality. The easiest way to introduce the basic ideas of this conception is through the analysis of a simple example. Consider the proposition 'Every man is an animal.' When I refer to the sentence enclosed in quotation marks as a proposition, I use the term 'proposition' in the medieval sense, meaning the token-inscription

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[1] For a detailed historical discussion of the late medieval separation of the *via antiqua* and the *via moderna*, see W. L. Moore, "Via Moderna," in J. Strayer (ed.) *Dictionary of Middle Ages* (New York: Scribner, 1989) XII: 406–9.

[2] For some of the historical and theoretical problems involved in this somewhat simplistic characterization, see Gyula Klima, "Nominalism," in E. K. Brown (ed.) *Elsevier's Encyclopedia of Language and Linguistics* (Elsevier: Oxford, 2006) VII: 648–52, and "The Medieval Problem of Universals," in E. Zalta (ed.) *The Stanford Encyclopedia of Philosophy* (http://plato.stanford.edu, Winter 2004).

between the quotes. But of course this inscription and its significative parts are meaningful to us only because reading it produces some understanding in our minds. The inscription 'biltrix' or the corresponding utterance is meaningless to us precisely because we literally have *no idea* what, if anything, someone writing or uttering it would mean by it. The understanding generated by the entire proposition in our minds is a complete thought, a "mental proposition," whereas the simpler acts of understanding corresponding to the meaningful units making up the proposition are the *concepts* making up the thought. The subject and predicate terms of this proposition are its categorematic terms, constituting the matter of the proposition, and the rest are its syncategorematic terms, determining its form (in this case, its being a universal, affirmative, categorical proposition).[3] The semantic properties of these terms are primarily determined by the concepts they immediately signify in the mind. Thus, the written term 'every' is syncategorematic, because it signifies a syncategorematic concept in the mind, whereas the subject and predicate terms are categorematic, because they signify categorematic concepts. (On categorematic and syncategorematic terms, see Chapter 11.)

The categorematic terms of this proposition are *common* terms (as opposed to *singular* terms, such as proper nouns). A categorematic term is common if it can be predicated of several things without equivocation – that is, by signifying the same concept in the mind. Clearly, if the proper name 'John' can be truly predicated of several individuals, then this is due to the fact that the name is used once according to the concept whereby we conceive of an individual named 'John,' and then again according to another concept, whereby we conceive of another individual, who also happens to be named 'John.' Hence the need to number the names of all the popes and kings named 'John,' where the numbering clearly indicates the equivocation. By contrast, we can truly predicate the term 'man' of all these individuals without any change of meaning – that is, according to the same concept – and as a result there is no need for numbering. But if there is no single individual that this term is the name of, then on account of what does it apply universally to all the individuals it is true of? This is one way of putting the *semantic* problem of universals. The typical medieval (moderate) realist answer is most succinctly stated by Thomas Aquinas – although he himself is relying heavily on the work of earlier scholars (see Chapter 11). Commenting on Aristotle's conception of the "semantic triangle" of words, concepts, and things (*De interpretatione* 1), he writes:

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[3] For a detailed discussion of the distinction, see Gyula Klima, "Syncategoremata," in Brown, *Elsevier's Encyclopedia of Language and Linguistics* XII: 353–6.

names, verbs, and speech signify . . . conceptions of the intellect immediately, according to the teaching of Aristotle. They cannot immediately signify things, as is clear from their mode of signifying, for the name 'man' signifies human nature in abstraction from singulars; hence it is impossible that it immediately signify a singular man. The Platonists for this reason held that it signified the separated idea of man. But because in Aristotle's teaching man in the abstract does not really subsist, but is only in the mind, it was necessary for Aristotle to say that "vocal sounds signify the conceptions of the intellect immediately and things by means of them."

(*In De interp.* I.2 n. 5)[4]

Accordingly, the semantic function of common terms is determined by the representative function of the universal concepts they signify. This representative function, in turn, is due to the activity of the abstractive mind, which forms these concepts by abstracting the individualized natures of individual things from their individuating conditions. Thus, common terms are truly predicable of those things that actually have the natures or forms represented by the concepts they signify in the mind. Accordingly, common terms have a twofold signification: they *immediately signify* the concepts of the mind to which they are subordinated, and which therefore render them meaningful, but they *ultimately signify* the individualized natures or forms of the things represented by these concepts in an abstract, universal manner.

Besides their signification, these terms also have a referring function (*supposition*) determined not only by their signification, but also by their propositional context. Thus, the subject term of our sample proposition, 'Every man is an animal' (namely, 'man'), obviously has the function of standing for (*supponere pro*) individual humans, the things that actually have the nature represented by the corresponding concept. But in the proposition 'Man is a species' the same term *with the same signification* would have to stand for something else. Indeed, according to Peter of Spain, the term 'man' in this proposition would have to stand for the same thing that it would stand for in any affirmative proposition in which it is the predicate (as in 'Socrates is a man') – namely, human nature conceived in a universal manner.[5] But what ultimately makes the predicate

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[4] The same conception is also very clearly expressed at length in Lambert's *Logica* (*Summa Lamberti*), tr. N. Kretzmann and E. Stump, in *The Cambridge Translations of Medieval Philosophical Texts*, vol. I (Cambridge: Cambridge University Press, 1988) pp. 104–10. For the same type of reasoning concerning the signification of common terms, as used by Walter Burley against Ockham, see his *On the Purity of the Art of Logic* sec. 33 (tr. Spade, pp. 87–8).

[5] Interestingly, Aquinas would disagree with Peter on this point. He argues that 'man' as a predicate term must stand for human nature according to its absolute consideration, which he would not identify with human nature insofar as it is a species. But this issue should not detain us in this context. For details, see Gyula Klima, " 'Socrates est species': Logic, Metaphysics and Psychology in St. Thomas Aquinas' Treatment of a Paralogism," in K. Jacobi (ed.) *Argumentationstheorie: Scholastische Forschungen zu den logischen und semantischen Regeln korrekten Folgerns* (Leiden: Brill, 1993)

'man' true of Socrates in 'Socrates is a man' is the actual existence (*esse*) of the humanity of Socrates, signified by the copula. Thus, the copula on this conception is not a mere syntactical marker of the composition of subject and predicate; it also has a significative function: signifying the individualized acts of existence of the ultimate *significata* of the predicate in the *supposita* of the subject. Moreover, according to Peter, not only the copula but also the other syncate-goremative terms of a proposition have such a significative function: they signify certain ways of being (*modi essendi*) of the things signified by the categoremic terms.[6] The combination of the *significata* and *supposita* of categoremic and syncategoremic terms in turn yields the *significatum* of the whole proposition, the existence of which renders the proposition true. This is how these authors would interpret the Aristotelian dictum that "a sentence is true according as the thing [signified by the sentence] is or is not."[7] However, this "thing" is not on a par with ordinary things. It is, rather, a *being of reason* (*ens rationis*), on a par with abstract universals, relations of reason, negations, and privations – an object of thought, having some foundation in reality.[8]

Thus, summarizing the *via antiqua* analysis of the proposition 'Every man is an animal,' we can say the following: this written proposition is true if and only if the corresponding mental proposition is true, which in turn is true if and only if its *significatum*, the corresponding "real proposition" – which would be vari-ously called *enuntiabile*, *dictum*, or *complexe significabile* – exists (see Chapter 26). But the existence of these quasi-entities is conditioned on the way things are in real existence. In particular, since our sample proposition is a universal affirma-tive, it is true if and only if all the corresponding singular propositions are jointly true, which in turn are true if and only if there are human beings (individuals informed by individualized instances of the human nature that is signified by the subject), each of whom is actually informed by animality, the nature signified by the predicate.

489–504, and "The Medieval Problem of Universals," in Zalta, *The Stanford Encyclopedia of Philosophy* (http://plato.stanford.edu, Fall 2000) esp. sec. 7.

[6] For a more detailed account of Peter of Spain's conception of syncategoremata, see Gyula Klima, "Peter of Spain, the Author of the *Summulae*," in J. Gracia and T. Noone (eds.) *Blackwell's Companion to Philosophy in the Middle Ages* (Oxford: Blackwell, 2003) 526–31, and de Rijk and Spruyt's excellent bilingual edition of his *Syncategoremata*.

[7] See Cajetan (Thomas de Vio), *In Praedicamenta*, ed. Laurent, p. 87: "And note that Aristotle's maxim posited here, 'A sentence is true according as the thing is or is not' [*Cat.* 4b8], is to be understood not of the thing that is the subject or the predicate of this sentence, but of the thing that is signified by the whole sentence – e.g., when it is said 'a man is white,' this is true not because a man or a white thing is, but because a man's being white is, for this is what is signified by this sentence."

[8] For a discussion of how this semantic conception *necessitates* positing such quasi-entities, see Gyula Klima, "The Changing Role of *Entia Rationis* in Medieval Philosophy: A Comparative Study with a Reconstruction," *Synthese* 96 (1993) 25–59.

As can be seen, on this conception truth and existence are closely intertwined notions. The truth of a proposition primarily requires the (quasi-)existence of the corresponding complex state of affairs, which in turn requires the existence of a whole array of entities (and quasi-entities) as the various semantic values of the components of the proposition. The payoff of this complex semantic picture is a very simple, uniform theory of truth ("a proposition is true if and only if what it signifies exists," disregarding complications with self-referential propositions), as opposed to the clause-by-clause specification of different types of truth-conditions for different types of propositions found in nominalist or in contemporary semantics – but apparently at the expense of an "overpopulated" ontology containing various layers of entities: substances, their accidents and/or their privations, underpinning the existence of the *significata* of propositions. This, however, is precisely the price a nominalist like Ockham is not willing to pay.

Extravagance in ontology is one of Ockham's major complaints against "the moderns," as he is wont to refer to representatives of the older realist theory. The main root of their errors, according to Ockham, was "multiplying beings according to the multiplicity of terms . . . which is erroneous and leads far away from the truth" (*Summa logicae* I.51 [*Opera phil.* I: 171]). To be sure, Ockham's charge that the older conception is committed to a "Porphyrian forest" in its ontology – that is, a system of categories having a distinct *Porphyrian tree* of essential predicables in each Aristotelian category – is not entirely justified, for his realist predecessors did have their own metaphysical strategies of reducing the ontological commitment of their semantics.[9] It is at least true, though, that their semantics, involving so many different types of semantic values for all kinds of terms (categorematic as well as syncategorematic) and propositions, sets up a whole array of metaphysical problems concerning the nature and conditions of identity and distinctness of these semantic values, many of which Ockham regards as easily avoidable in a different semantic framework.

Ockham's arguments against the older framework, therefore, can be sorted into those that directly attack some of the (perceived) ontological commitments of that theory as leading to some patent absurdity, and those that are designed to show that such commitments are easily avoidable if one has the right semantic theory. He uses the first type of argument when he argues against the perceived commitment of the older theory to ten distinct classes of entities in the ten Aristotelian categories. The existence of such distinct entities, he charges, leads

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[9] For a detailed discussion of this issue, see Gyula Klima, "Ockham's Semantics and Ontology of the Categories," in P. V. Spade (ed.) *The Cambridge Companion to Ockham* (Cambridge: Cambridge University Press, 1999) 118–42.

to various logical or physical absurdities. For example, a logical absurdity would be that one thing could be equal to another on account of an entity from the category of Relation – equality – inhering in it, even if it does not have the same quantity as another thing. Conversely, one thing might be unequal to another for lack of this inherent equality-thing, even if they are of the same quantity. A physical absurdity would be that the movement of a donkey here on earth would have to cause an infinity of position-things or distance-things (from the categories of either Position or Where) in the fixed stars as their relative position and distance to the donkey changes with its movement (see *Summa logicae* I.50).

Another example of this sort of argumentation is the array of arguments Ockham uses against Scotus's conception of universals and individuation, which also illustrates the fact that what bothers Ockham in the older theory is not only the extent of its ontological commitment, but also the obscurity of the distinctions on which it relies. For instance, Ockham treats as absurd Scotus's claim that the common nature of a thing is *formally* but not *really* distinct from the individual difference that individuates it. Ockham insists to the contrary that if there is any distinction in things outside the mind, then that distinction must be a real distinction. He offers this argument: clearly, a common nature is not formally distinct from itself (as nothing differs from itself in any way outside the mind); but it is formally distinct from the individual difference (according to Scotus); therefore, the common nature is not the same as – that is, it is really distinct from – the individual difference, which contradicts Scotus's original claim (ibid., I.16 [I: 54]).

The real strength and novelty of Ockham's approach, however, lies not in these destructive arguments (which, after all, might be handled in the older framework), but rather in presenting a viable alternative that need not entail either the ontological commitments or the obscurities of the earlier theory. Thus, wielding his famous Razor,[10] Ockham and his followers are entitled to get rid of both, even without having to argue against them any further.

In fact, this was precisely the kind of argumentation (coming from his confrère, Walter Chatton) that convinced Ockham himself to abandon his early view of universal concepts, according to which the concepts expressed by our common terms are universal objects of thought (that is, mere beings of reason, *entia rationis*), the so-called *ficta*.[11] The important feature of that argumentation from our point of view is its pointing out that whatever

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[10] Ockham's Razor, often quoted in the form "entities are not to be multiplied without necessity," clearly licenses the elimination of unwanted entities, even if no patent absurdity follows from their assumption. It is enough to present a viable alternative theory that can do without them.

[11] Cf. Rondo Keele, "Walter Chatton," in Zalta, *The Stanford Encyclopedia of Philosophy* (http://plato. stanford.edu, Fall 2006). For an excellent, detailed discussion of Ockham's theory of concepts in general, see Claude Panaccio, *Ockham on Concepts* (Aldershot: Ashgate, 2004).

semantic features of common terms Ockham's *ficta* were posited to explain can equally well be explained by the properties of the corresponding mental acts. After all, the universal signification of our common terms is due to the universal representation of the concepts to which they are subordinated. But such universal representation does not require any universal objects. For a universal representation does not have to represent *a universal thing* (whether as an object in reality or as an object in the mind); rather it has to represent several individuals indifferently, *in a universal manner*. However, this function can be carried out by a concept, which for Ockham is just the mental act itself, representing several individuals indifferently at once. Hence there is no need to posit ontologically dubious *ficta* as intermediary objects between mental acts and their ultimate, individual objects.

Abandoning *ficta* naturally leads to abandoning the entire distinct realm of beings of reason (*entia rationis*) demanded by the older conception. Thus, once *ficta* are eliminated, beings of reason for Ockham are not distinct from real beings in the two really distinct categories he allows, namely, substance and quality: a being of reason is either a real quality inhering in reason (that is, a concept, which is a mental act), or something outside the mind that is denominated with the further connotation of some quality inhering in reason (in the way that money is just a piece of paper, which can be denoted as 'money' only by connoting people's mental acts whereby they are willing to accept it as legal tender).[12] This move, together with reducing the number of distinct categories of real entities to two, certainly did provide Ockham with the type of "desert landscape" a nominalist likes to see in his ontology. But this strategy inevitably raises a number of issues about the viability of this semantic theory: in particular, how is it possible to provide a sufficiently fine-grained semantics for our language, given the apparent dearth of distinct semantic values in this parsimonious nominalist ontology? Taking his cue from Ockham, it was John Buridan who first provided a comprehensive, detailed answer to this question, in his massive *Summulae de dialectica*, and so in what follows it will be helpful to consider his account together with Ockham's.

BURIDAN'S NOMINALIST SEMANTICS

The signification and supposition of terms

Ockham and Buridan subscribe to the idea of the Aristotelian "semantic triangle" just as much as their predecessors did: the terms (both categorematic and

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[12] For a detailed discussion, contrasting Ockham's conception with Aquinas's, see Klima, "The Changing Role of *Entia Rationis*."

syncategorematic) of the proposition 'Every man is an animal' are meaningful on account of being subordinated to concepts of the human mind, whereby we conceive of things outside the mind. However, the two share a radically different conception of what these concepts are and how they function semantically – that is, how these concepts map our words onto a parsimoniously conceived nominalist ontology.

In the first place, the signification of the categorematic terms of our sample proposition is determined by the concepts whereby we conceive indifferently all human beings and whereby we conceive indifferently all animals, whether they are present to us or not (that is, whether they are past, present, future, or merely possible). Thus, these terms are construed as signifying precisely these individuals, and not some common nature existing individualized, but represented in an abstract manner by the corresponding concept. Since such a concept represents the individuals themselves indifferently, the corresponding term signifies the same in the same way. To be sure, the same individuals can be represented in a number of different ways, in terms of different concepts: thus, human beings can be conceived not only absolutely, but also in relation to other things, say, as children or parents, or as predator or prey. This is the basis for the nominalist distinction between *absolute* and *connotative* (or in Buridan's terminology, *appellative*) concepts and the corresponding terms. Connotative terms, besides indifferently signifying certain things, also connote others. The term 'parent,' for instance, signifies parents but connotes their children. However, it is important to note that the class of connotative terms is broader than that of relative terms. There are a number of syntactically monadic terms (say, 'predator') that nominalists would classify as connotative, because they are subordinated to complex connotative concepts (say, the concept explicated by the phrase 'animal preying on other animals'). Thus, the deceptive syntactic simplicity of such connotative terms hides a conceptual complexity, which can be revealed by providing their nominal definitions – that is, complex phrases whose syntactical structure matches the compositional structure of the complex concepts to which these terms are subordinated.[13]

The significance of this point should be clear once we realize how nominal definitions can serve to eliminate unwanted ontological commitment in the Aristotelian categories. In the first place, relative concepts and terms obviously need not carry the kind of ontological commitment they appear to have in

[13] For a discussion of the idea of conceptual composition and the mere *semantic* complexity of complex concepts that is compatible with their ontological simplicity, see the introduction to my translation of the *Summulae*, pp. xxxvii–xliv. For the same ideas in Ockham, and an account of the controversial issue of whether he admitted simple connotative concepts, see Panaccio, *Ockham on Concepts*, esp. ch. 4.

the older framework. For instance, the relative term 'father' in the nominalist framework is not construed as signifying some inherent "relation-thing" in a man somehow joining him to a child; rather, it merely signifies the man in relation to the child on account of the man's being conceived as the progenitor of the child.[14] Monadic terms in other accidental categories that may appear to signify inherent accident-things may also be interpreted as being subordinated to complex connotative concepts. This method of elimination by definition can easily get rid of the older framework's apparent need for a "Porphyrian forest."

Thus, as far as their signification is concerned, common categorematic terms in the nominalist framework need not carry commitment either to ten classes of obscure quasi-entities (universal thought-objects or less-than-numerically-one common natures and their like) or to several other classes of spooky inherent entities (such as the when-ness of temporal things);[15] the signification of any such categorematic term may be construed either as the indifferent absolute signification of ordinary entities, or as the indifferent signification-plus-connotation of the same, on account of the corresponding absolute or connotative concepts. But those concepts form just another set of ordinary entities: real inherent qualities of individual minds, which Ockham and Buridan never wanted to eliminate from their ontology.[16] Indeed, the same goes for syncategorematic concepts: they are also inherent qualities of the mind, which however do not represent anything in themselves, but rather have the function of modifying the representative function of categorematic concepts by joining them in complex concepts, such as mental propositions expressed by spoken and written propositions, or the complex concepts expressible by complex spoken or written terms.

Therefore, admitting the immediate *significata* of our terms commits us merely to individual qualities inhering in singular minds. Acknowledging the ultimate *significata* of the same commits us only to entities in the permitted categories (namely, Substance, Quality, and – for Buridan but not Ockham – Quantity), for the ultimate *significata* of terms pertaining to the other *logical* categories will be construed as entities in the same *ontological* categories, the terms variously

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[14] For a detailed discussion of the example with diagrams comparing the nominalist and realist conceptions, see again my introduction to the *Summulae*, pp. l–lx.

[15] This was actually posited by Ockham's staunch opponent, pseudo-Campsall, in his aptly titled work, *The Very Useful Realist Logic against Ockham of Campsall the Englishman*, 38.12.

[16] In principle, however, as far as their semantics is concerned, Ockham and Buridan could have eliminated quality as a distinct category. See the excellent discussion in Marilyn McCord Adams, *William Ockham* (Notre Dame, IN: University of Notre Dame Press, 1987) I: 277–85. See also Gyula Klima, "Buridan's Logic and the Ontology of Modes," in S. Ebbesen and R. Friedman (eds.) *Medieval Analyses in Language and Cognition* (Copenhagen: Royal Danish Academy of Sciences and Letters, 1999) 473–95.

connoting further entities in those same categories. Furthermore, since the *supposita* of these terms in various propositional contexts are either their ultimate *significata* (when these terms stand in *personal supposition*), or their immediate *significata* (when they stand in *simple supposition*), or themselves or similar token-terms (when they stand in *material supposition*), the supposition of terms does not have to commit us to any other entities either.[17]

The semantics of propositions

Given the semantic properties they attribute to categorematic terms, Ockham and Buridan adopt a new theory of the copula, which historians of medieval logic usually refer to as the "identity theory," as opposed to the earlier "inherence theory."[18] According to the identity theory, the function of the affirmative copula is *not* that of asserting the existence of the *significatum* of the whole proposition (which in turn is grounded in the actual existence of the ultimate *significata* of the predicate in the *supposita* of the subject), but rather asserting the identity of the *supposita* of the subject with the *supposita* of the predicate. Therefore, the copula will not signify existence at all, although the identity of the relevant *supposita* will still *require* the existence of those *supposita*; so affirmative propositions will still have existential import in this framework.[19]

From the semantic point of view, what is more important is that the identity theory leads to a theory of truth that is radically different from that of the older semantics. Since the function of the affirmative copula is that of asserting the co-supposition of the categorematic terms of propositions, the truth conditions of propositions need not be construed in terms of the existence/actuality of

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[17] Buridan actually lumps together material and simple supposition under the heading of material supposition, in contrast to personal supposition. But this is just a matter of terminology, as he notes in *Summulae* IV.3.2.

[18] To be sure, the identity theory had been around in the earlier framework as well, as a compatible *complement* to the inherence theory. Aquinas, for instance, allows both analyses, although he regards the inherence analysis as "more appropriate" (*magis propria*), and in the case of adjectival predicates the only acceptable one, e.g., in *Sent*. III.5.3.3 *expositio* and *Summa theol*. 1a 39.6 ad 2. But the nominalists use the identity analysis to the *exclusion* of the inherence analysis, to eliminate its (perceived) ontological commitments in their *semantic* theory, even if they admit really inherent qualities in their ontology. Thus, they would allow that 'Socrates is white' is true just in case whiteness inheres in Socrates, but in their view the *semantic function* of the predicate is *not* to signify this inherent whiteness, and the function of the copula is *not* to assert its existence: the function of the predicate is to signify white things connoting their whiteness, and the function of the copula is to assert the identity of such a thing with Socrates.

[19] For more on this issue, including the complications concerning *natural supposition* and *ampliative contexts* that cancel out this existential import, see Gyula Klima, "Existence and Reference in Medieval Logic," in A. Hieke and E. Morscher (eds.) *New Essays in Free Logic* (Dordrecht: Kluwer, 2001) 197–226, and Terence Parsons, "The Traditional Square of Opposition," in Zalta, *The Stanford Encyclopedia of Philosophy* (http://plato.stanford.edu, winter 2006).

their *significata*, but rather in terms of the co-supposition of their terms. This will lead to the abandonment of the "neat" Aristotelian definition of truth for all types of propositions, but this precisely is the price a nominalist is willing to pay. Thus, instead of having to deal with a dubious ontology of the *significata* of propositions, Buridan will opt for a clause-by-clause statement of the truth conditions of different types of proposition one by one, based on their syntactical structure. To be sure, in the "conservative" spirit of medieval philosophy, he also preserves the Aristotelian formula, but merely as a somewhat improper abbreviation of what he really means by it. As he says:

> But in the end we should note – since we can use names by convention (*ad placitum*), and many people commonly use this way of putting the matter – that with respect to every true proposition we say 'It is so,' and with respect to every false one we say 'It is not so,' and I do not intend to eliminate this way of speaking. But for the sake of brevity I may use it, often intending by it not what it signifies on account of its primary imposition, but the diverse causes of truth and falsity assigned above for diverse propositions.
>
> (*Summulae* IX [*Sophismata*] ch. 2 concl. 14)

So, truth for Buridan is no longer tied to the existence of the *significata* of propositions, such as the *complexe significabilia* that Gregory of Rimini posited in the 1340s.[20] Therefore, he does not need such *significata* for specifying the truth conditions of propositions at all.

Buridan still needs an account of propositional signification for other purposes, however, such as accounting for the semantics of sentential nominalizations (accusative with infinitive or gerundive constructions, or what we call "that-clauses"). Intuitively, these would seem to have the function of referring to what the corresponding propositions signify. (For example, 'Socrates to be wise,' 'Socrates's being wise,' or 'that Socrates is wise' as the direct object of 'Socrates desires' would seem to have the function of referring to what the proposition 'Socrates is wise' signifies.) However, since Buridan is absolutely not willing to buy into a dubious ontology of *complexe significabilia*, he has to bite the bullet and provide a semantic account of propositions and the corresponding nominalizations according to which propositions do not signify anything over and above what their categorematic terms signify. Thus, he claims that the contradictory propositions 'God is God' and 'God is not God,' as well as the simple term 'God,' signify one and the same thing, namely, God. However, this does not render them synonymous, for although they signify the same ultimately (*ad extra*), they clearly signify different concepts in the mind (*apud mentem*),

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[20] See Gregory of Rimini, *Sent.* 1.1, and the discussion in Gabriel Nuchelmans, *Theories of the Proposition: Ancient and Medieval Conceptions of the Bearers of Truth and Falsity* (Amsterdam: North-Holland, 1973) pp. 227–37. (See also Chapter 26.)

whereby the mind conceives of the same absolutely simple thing in different ways, in a simple or a complex fashion.

   Sentential nominalizations, however, need not always stand for what the corresponding propositions ultimately signify. Functioning just as any other complex categorematic term does, these nominalizations may also be taken materially or personally. Suppositing materially, they stand for the correspond-ing token-propositions, as in 'Every that no man runs is possible.'[21] But Buridan realizes that sentential nominalizations sometimes cannot be interpreted this way. For example, when we truly say 'To cut is to act,' this cannot be interpreted as making the claim that a proposition 'Someone is cutting' is identical with a proposition 'Someone is acting,' for that interpretation is obviously false. There-fore, Buridan says that when the nominalization stands in personal supposition, it stands for those *significata* of the terms of the corresponding proposition of which they are jointly true, provided the proposition is true; otherwise it stands for nothing. Clearly, this is a good solution for the foregoing example, for then the sentence 'To cut is to act' is true because someone cutting is indeed identical with someone acting, which is to say that its terms co-supposit. It is not clear, though, how this type of solution would work for other types of propositions (negatives, and so forth). Buridan simply does not say. This is a characteristic feature of nominalism: it usually stays programmatic. But Buridan took this program farther than anyone before or even after him.

Validity under semantic closure

Buridan does work out another issue that Ockham did not have much to say about – namely, a general nominalist account of logical validity in semantically closed natural languages. Since nominalists have to treat items of the languages they work with (conventional written or spoken languages as well as mental language) as a part of their ontology, where these items have to be identified with individual substances or their individual quantities or qualities, the definition of a valid consequence (inference), as Buridan argues, will have to take into account both the contingent existence of these items, and the possibility of using these items to refer to themselves or other tokens of the same type (yielding what Alfred Tarski called "semantic closure").[22] Buridan deploys an impressive array

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[21] See *Summulae* I.8.9.3 (tr. Klima, p. 93), where Buridan interprets this sentence as saying: "Every proposition like 'no man runs' is possible."

[22] For more on this issue, see Gyula Klima, "Consequences of a Closed, Token-Based Semantics: The Case of John Buridan," *History and Philosophy of Logic* 25 (2004) 95–110; Catarina Dutilh Novaes, "Buridan's *consequentia*: Consequence and Inference within a Token-based Semantics," *History and Philosophy of Logic* 26 (2005) 277–97.

of arguments to show that logical validity in his framework cannot be defined in terms of truth, but rather in terms of the correspondence conditions of propositions in different possible situations. Take, for instance, the proposition 'No proposition is negative' (which is just this token-inscription that may or may not exist here and now). This, being a negative proposition itself, cannot be true in any situation in which it exists. However, the proposition clearly corresponds to a possible situation in which no negative proposition exists. So, it corresponds to a situation in which it is not true, and thus correspondence is not the same as truth. Such considerations quite naturally lead to a peculiar semantic construction in which the correspondence conditions of a proposition may diverge from its truth conditions, and in which it is the former, rather than the latter, that will have to figure in the definition of validity. This is also the core of Buridan's solution of the Liar paradox.[23] Buridan's discussion of the issue is rather difficult, but exhibits an absolutely relentless consistency in pursuing the nominalist project to its utmost consequences.

CONCLUSION

No doubt this relentless consistency was one of the features of Buridan's philosophy that earned him universal respect both in his lifetime and in the following two centuries, when his works became required reading in the curricula of many of the newly established universities from Poland to Scotland. Indeed, because of Buridan's role in developing a nominalist semantics, the impact of his ideas can hardly be overestimated. To be sure, Ockham was more controversial, especially for his theological and metaphysical views, and so may have been cited more often in disputations of that sort. Moreover, those who belonged to Buridan's immediate or wider circle (such influential authors as Albert of Saxony, Nicole Oresme, Themon Judaeus and Marsilius of Inghen, and probably large numbers of unidentified, less famous figures) may not have been strictly speaking his students and followers.[24] But it was Buridan's careful attention to theoretical detail, coupled with his prudent practical judgment and pedagogical skill, that in his hands could turn Ockham's innovations into relatively uncontroversial, viable textbook material, capable of laying the foundations of a new, paradigmatically

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[23] See Stephen Read, "The Liar Paradox from John Buridan back to Thomas Bradwardine," *Vivarium* 40 (2002) 189–218, and the classic treatments by Spade, Hughes, Scott, Moody, and Prior cited in Read's paper. A detailed analysis of Buridan's solution, along with its consequences concerning his construal of validity, can be found in ch. 10 of my *John Buridan* (Oxford: Oxford University Press, 2009).

[24] For an excellent analysis and re-evaluation of the relationships among these authors see J. M. M. H. Thijssen, "The Buridan School Reassessed: Buridan and Albert of Saxony," *Vivarium*, 42 (2004) 18–42.

different conception of the relationships between language, thought and reality. And this is what renders the emergence of nominalist semantics the most significant development of late medieval philosophy. In the subsequent two centuries, the new theoretical conflicts that inevitably arose between practitioners of the nominalist "modern way" (*via moderna*) and those of the realist "old way" (*via antiqua*) were different in kind from the theoretical conflicts between members within each camp. Conflicts of this kind, to use Wittgenstein's happy analogy, are no longer about who wins the game, but rather about whose game everybody ought to play. The emerging situation, therefore, is most aptly described by the succinct term of German historiography: *Wegestreit*, "the quarrel of the ways."[25] As a result, those in the middle of it all, university professors and administrators, faced a radically new situation that had to be handled both in theoretical and practical, institutional terms – not unlike the situation of the recent conflict between the analytic and continental *viae* in contemporary philosophy.

[25] Indeed, no wonder this situation directly had an impact on the emergence of "the battle of the faiths," *Glaubenskampf*, in the age of the Protestant Reformation. See Heiko Oberman, *Werden und Wertung der Reformation: Vom Wegestreit zum Glaubenskampf* (Tübingen: Mohr, 1977).

INFERENCES

STEPHEN READ

Much of the recent attention of historians of medieval logic has focused on medieval semantics. Just as prominent in medieval logical treatises, however, is the topic of inference, and a great deal of sophisticated work was done in this area, particularly by the fourteenth-century Latin authors on which this chapter will concentrate.

KINDS OF INFERENCE

Inferences are the building blocks of scholastic thought, and it is scarcely possible to read a paragraph of later medieval philosophy without encountering the terminology in which inferences are couched. Indeed, nothing is more familiar from scholastic texts than phrases such as this: *Patet consequentia, antecedens est verum, ergo et consequens* ('The inference is seen to hold, the premise is true, so the conclusion is true too'). The term *consequentia* translates most readily as 'inference,' but what counts as an inference, to say nothing of what counts as a *valid* inference, is a thorny question. Even as good a logician as John Buridan may describe a *consequentia* as a molecular proposition (*propositio hypothetica*): "Now an inference is a molecular proposition, for it is composed from several propositions conjoined by the expression 'if' or by the expression 'therefore' or something similar" (*Tract. de consequentiis* I.3, ed. Hubien, p. 21). Yet when one argues: 'This is false, Socrates utters it, so it follows that Socrates utters a falsehood,' there is no conditional in this inference (*consequentia*), but two premises (*antecedentia*) and a conclusion (*consequens*). The same is true of syllogistic inference,[1] in which there are two premises and a conclusion. It is an inference, not a conditional proposition. Inferences can have one, two, or more premises. Let us look first at syllogisms.

A proper syllogism has two premises, a major and a minor, where the major premise, containing the major term of the argument, is simply the first premise.

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[1] So called in Buridan, *Tract. de consequentiis* III.1, p. 79.

(The stock definition of the major term as the predicate of the conclusion does not come until the sixteenth century.) The middle term of a syllogism is the one that appears in each premise but not in the conclusion. An enthymeme is a one-premise argument that can be turned into a syllogism by adding an extra premise, called a "middle" (*medium*), inasmuch as it shares a middle term with the other premise. Aristotle's *Prior Analytics* had described this basic structure and then worked out the valid forms of the syllogism. The medievals followed Aristotle in distinguishing three figures: figure one, where the middle term is subject of one premise and predicate of the other; figure two, where the middle term is predicate of both premises; and figure three, where the middle term is subject in both premises. Each of the constituent propositions is of four forms: A-form, universal affirmative; E-form, universal negative; I-form, particular affirmative; and O-form, particular negative. Each affirmative proposition entails that its subject is non-empty, whereas each negative proposition is true if its subject is empty. This ensures that A- and O-propositions, and E- and I-propositions, are mutually contradictory (forming the Square of Opposition), and that universal propositions entail the corresponding particular propositions.[2] Aristotle showed how to reduce the validity of any valid assertoric (non-modal) syllogism to that of four basic forms in the first figure:

Barbara	*Celarent*	*Darii*	*Ferio*
All B is C	No B is C	All B is C	No B is C
All A is B	All A is B	Some A is B	Some A is B
So all A is C	So no A is C	So some A is C	So not all A is C

The fanciful names are a medieval mnemonic device, one for each of the nineteen valid forms, the vowels describing the structure of the syllogism, the consonants the reduction procedure.[3]

The medievals introduced many and varied divisions of *consequentiae*. One such division was between formal and material inference (*consequentia formalis* and *materialis*). However, 'formal' and 'material' should not always be taken in their modern connotation. In John Buridan and the Parisian tradition, a formal inference was indeed one that held solely in virtue of its form, whereas a material inference held in virtue of its descriptive terms.[4] However, the English tradition, continued in Italy, drew this distinction within the class of formal inferences, contrasting *purely* formal inference (*formalis de forma*) with

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[2] For this reason, the O-form is better represented as 'Not all S is P' than as 'Some S is not P.'

[3] See, e.g., Buridan, *Summulae de dialectica* tr. 5 (On Syllogisms) ch. 2.

[4] See, e.g., Buridan, *Tract. de consequentiis* I.4, p. 22: "A formal inference is one that holds for all terms retaining the same form . . . but a material inference is where not every proposition of the same form is valid . . . e.g., 'A man runs, so an animal runs'."

materially formal inference (*formalis de materia*),[5] the latter of which might, in contemporary terms, be described as analytically valid.[6] Robert Fland wrote (around the mid-fourteenth century):

General rules are given in order to appreciate when an inference is formally valid. The first is this: where the conclusion is formally understood in the premises. For example, this inference is formally valid: 'There is a man, so there is an animal' because the conclusion 'animal' is formally understood in the premise, namely, 'man.'

(*Consequentiae*, ed. Spade sec. 1)

In William of Ockham and the English tradition, material inference comprised just instances of the paradoxical principles *ex impossibili (sequitur) quodlibet* (from the impossible anything follows: e.g., 'if a man is an ass, there is no God') and *necessarium (sequitur) ad quodlibet* (the necessary follows from anything: e.g., 'if a man runs, there is a God').[7] All other inferences were formal.

Ockham explains the difference between formal and material inference with reference to intrinsic and extrinsic middles. An intrinsic middle is one composed of terms appearing in the inference; an extrinsic middle is a general principle not specific to the terms of the inference; e.g., "from an exclusive proposition [e.g., 'Only *A* is *B*'] to a universal proposition with the terms transposed [namely 'All *B* is *A*'] is a valid inference" (*Summa logicae* III-3 ch. 1). However, this distinction cuts across the formal/material one. Formal inference is accordingly two-fold, Ockham says: some inferences hold by reason of an extrinsic middle describing the form of the proposition, whereas others hold by virtue of an intrinsic middle, like the example from Fland above, where 'Man is an animal' serves as the tacit middle.

The formal/material division, in its various construals, seems towards the end of the thirteenth century to have replaced an earlier division between natural (or essential) and accidental inference (see Chapter 10). The idea of formal inference has been said to appear for the first time in Simon of Faversham at the end of the thirteenth century, and to be consolidated by Ockham in the early fourteenth century.[8] It was around this time that the nature of inference was recognized as a topic worthy of separate treatment, leading in turn to the emergence of distinct and separate treatises on inference. This is not to deny, of course, that inference was always central to all logical discussion. Indeed,

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[5] See e.g., Paul of Venice, *Logica Parva*, tr. Perreiah, p. 168.

[6] As noted by Paul Spade, "Five Logical Tracts by Richard Lavenham," in J. O'Donnell (ed.) *Essays in Honour of Anton Charles Pegis* (Toronto: Pontifical Institute of Mediaeval Studies, 1974) p. 78.

[7] On the Latin tags, see, e.g., Ockham, *Summa logicae* III-3.38 (*Opera phil*. I: 730–1 n. 4).

[8] Christopher J. Martin, "Formal Consequence in Scotus and Ockham: Towards an Account of Scotus' Logic," in O. Boulnois *et al*. (eds.) *Duns Scot à Paris 1302–2002* (Turnhout: Brepols, 2004) pp. 135, 145.

inference played not only a central theoretical role but also a central practical role in the medieval curriculum through the method of disputations – and in particular through obligational disputations, which came to fruition at the start of the fourteenth century (see Chapter 10).[9]

A further common division was that between an absolute inference (*consequentia simplex*) and a matter-of-fact inference (*consequentia ut nunc*). In an absolute inference, the premises can never be true without the truth of the conclusion. In contrast, a matter-of-fact or *ut nunc* inference (sometimes also translated 'as-of-now') can have true premises and a false conclusion at some time, but not at present.[10] Walter Burley gives as an example:

Every man is running
So Socrates is running.

This inference is valid *ut nunc* only while Socrates (exists and) is a man.[11] Buridan's example of an inference valid *ut nunc* is more intriguing (slightly adapted):

A white cardinal has been elected pope
So a deceitful man (*homo falsus*) has been elected pope.

This inference is valid *ut nunc* on the assumption that at the time Buridan wrote his *Tractatus de consequentiis* he did not think well of the newly elected pope, Jacques Fournier, a member of the Cistercian order of "white monks," and a fierce opponent of fourteenth-century innovations in logic even before his election as Benedict XII.[12] Material inference *ut nunc* can be reduced to formal inference in Buridan's sense, to hold solely in virtue of its form, by the addition of a contingently true premise; absolute material inferences reduce to formal inferences by adding a necessarily true premise.[13]

Inference *ut nunc* was a contentious issue. For example, in a treatise on inference of unknown authorship, the notion is dismissed repeatedly: "There is no such thing as *ut nunc* inference." One argument given runs as follows: Suppose,

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[9] The inference rules of obligations are a topic in themselves, too large to be treated here. See, e.g., Paul Spade, "Medieval Theories of *Obligationes*," in E. Zalta (ed.) *Stanford Encyclopedia of Philosophy* (http://plato.stanford.edu), and Mikko Yrjönsuuri, "Duties, Rules and Interpretations in Obligational Disputations," in Yrjönsuuri, *Medieval Formal Logic* (Dordrecht: Kluwer, 2001) 3–34.

[10] The distinction between truth *simpliciter* and *ut nunc* derives from the standard Latin translation by Boethius of *Prior Analytics* 34b6–8.

[11] Burley, *Purity of the Art of Logic*, ed. Boehner, pp. 61, 199; tr. Spade, pp. 3, 146. Ockham, *Summa logicae* III-3.1 (I: 587), has the same example with 'animal' for 'man.'

[12] See Buridan, *Tract. de consequentiis* I 4, p. 23; cf. Hubien's Introduction, p. 9.

[13] See, e.g., Ockham, *Summa logicae* III-3.2 (I: 591).

for instance, that only an ass is running. Then from 'Every man is running' we can infer 'Every man is an ass' *ut nunc*, by a syllogism in Barbara: 'Everything running is an ass, every man is running, so every man is an ass.' The premise of the enthymeme is possible and the conclusion impossible. But this violates Aristotle's definition of the possible in the *Prior Analytics* (32a19–20) as "that which is not necessary but, being assumed, results in nothing impossible." So, the author concludes, the very notion of *ut nunc* inference must be rejected.[14] One manuscript attributes this treatise to Thomas Bradwardine, but this seems unlikely. For in his treatise on *Insolubilia*, Bradwardine dismissed this argument, responding that Aristotle's definition was given with respect to absolute inference, not inference as a matter of fact: "This inference really is valid *ut nunc*, for *ut nunc* the conclusion is understood (*intelligitur*) in the premise" (*Insolubilia*, ad 6.5.4).

THE GROUNDS OF INFERENCE

Bradwardine's term *intelligitur* ('is understood in') has been described as psychological or epistemic, and identified as a peculiarly English phenomenon, though mostly in English authors of the latter half of the fourteenth century – Henry Hopton, Richard Billingham, Robert Fland, Ralph Strode, Richard Lavenham, and the *Logica Oxoniensis*.[15] This psychologistic interpretation is sometimes attributed to fifteenth-century Italian commentators on Strode: Alexander Sermoneta, for instance, proposed four ways to interpret *intelligitur*, preferring the fourth: "when it is impossible to imagine *B* or its significate to [hold] and not *A* or its significate without the implication of a contradiction resulting from both taken together."[16] But this kind of account of inference runs throughout the medieval history of inference, from Peter Abaelard in the early twelfth century right through to the sixteenth.[17] Nor is it peculiarly English. For example, it is found in Robert Kilwardby and Simon of Faversham, both representing Parisian doctrine in the thirteenth century. In Kilwardby, for instance, natural

[14] Edited in N. J. Green-Pedersen, "Bradwardine (?) on Ockham's Doctrine of Consequences: An Edition," *Cahiers de l'Institut Grec et Latin du Moyen Age* 42 (1982) secs. 6–8, p. 93.
[15] See, e.g., E. J. Ashworth and Paul Spade, "Logic in Late Medieval Oxford," in J. Catto and T. Evans (eds.) *The History of the University of Oxford*, vol. II: *Late Medieval Oxford* (Oxford: Clarendon Press, 1992) n. 15.
[16] See Calvin Normore, "The Necessity in Deduction: Cartesian Inference and its Medieval Background," *Synthese* 96 (1993) p. 450.
[17] See, e.g., Ivan Boh, "Consequences," in N. Kretzmann *et al.*, *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) pp. 305–6; E. J. Ashworth, *Language and Logic in the Post-Medieval Period* (Dordrecht: Reidel, 1974) p. 130.

and essential inference is marked by the conclusion's being understood in the premises.[18]

There is, however, no reason to import a psychologistic interpretation onto this talk of understanding. For what is understood by a proposition is what it signifies: as Ralph Strode put it (*ca.* 1360), a formal inference obtains "when, if the way in which facts are adequately signified by the antecedent is understood, the way in which they are adequately signified by the consequent is also understood. For instance, if anyone understands that you are a man, he will understand also that you are an animal" (*Tract. de consequentiis*, tr. Seaton, 1.1.03). Indeed, Bradwardine's notorious second postulate of his *Insolubilia* turns the criterion on its head, appealing to what follows from a proposition as an account of what it signifies: "Every proposition signifies either absolutely or *ut nunc* whatever follows from it absolutely or *ut nunc*" (6.3). The proposition signifies its consequences since these are understood in what is signified by the original proposition from which they are inferred.

Christopher J. Martin has suggested that the formula was intended to narrow the simple modal requirement that it be impossible for the premises to be true and the conclusion false.[19] The simple modal formula justifies the spread law *ex impossibili quodlibet* (from an impossibility anything follows), but (to take a common medieval example) clearly 'The stick is in the corner' is in no way to be "understood" in some arbitrary impossibility with which it shares no terms. Moreover, the principle seems to support Aristotle's requirement in the *Prior Analytics* (57b1–16) that no proposition may be inferred from its contradictory, or from contradictories. Abaelard agreed: "the truth of one of two propositions that divide truth [e.g., *p* and 'not-*p*'] does not require the truth of the other but rather expels and extinguishes it" (*Dialectica*, ed. de Rijk, p. 290). Hence inference *ex impossibili quodlibet* must be rejected, since if everything followed from an impossibility, its contradictory opposite would also follow.

Aristotle's scruples against such inferences were undermined, however, by an argument devised by William of Soissons and his teacher Adam of Balsham.[20]

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[18] Kilwardby, *In Analytica Priora*: "For only in natural inferences is it necessary that the conclusion is really understood in the premises; in accidental inferences it is not necessary"; cited in Ivo Thomas, "Maxims in Kilwardby," *Dominican Studies* 7 (1954) p. 139. Kilwardby takes accidental inferences to be the paradoxical *ex impossibili quodlibet* and *necessarium ad quodlibet*, where premise and conclusion can be mutually irrelevant. See also Simon of Faversham, *Quaest. super libro* [sic] *elenchorum*, ed. Ebbesen *et al.*, p. 71: "It must be said that for a valid inference more is required than that the conclusion is included in the premise, namely, that in understanding the premise the conclusion is necessarily understood."

[19] See Christopher J. Martin, "William's Machine," *Journal of Philosophy* 83 (1986) p. 567.

[20] Identified by Martin as "William's machine," this argument was rediscovered in the twentieth century by C. I. Lewis and C. H. Langford in their *Symbolic Logic* (New York: The Century Co., 1932) p. 250.

For '*p* and not-*p*' entails not only 'not both *p* and not-*p*' (its contradictory opposite) but any proposition whatever. From '*p* and not-*p*' we may infer both *p* and 'not-*p*,' and from *p* we may infer '*p* or *q*'; finally, from '*p* or *q*' and 'not-*p*' we may infer *q*; so from first to last (*a primo ad ultimum*), from '*p* and not-*p*' we may infer *q*. Hence anything whatever follows from a formal contradiction, including its contradictory opposite, which is a necessary truth. (See Chapter 10 for further discussion.)

Other fourteenth-century authors retained the modal formula ('It is impossible that . . .') but chose not to express it in terms of truth because of a pregnant sophism famously found in the writings of John Buridan. Consider the following argument:

Every proposition is affirmative
So no proposition is negative.

The conclusion cannot be true, for it is itself a negative proposition, and so falsifies itself. But the premise can be true, so it seems that the premise can be true when the conclusion is not (for instance, if there are no negative propositions). Yet the argument is valid, being an enthymeme in Celarent with the suppressed premise, 'No affirmative is negative.' Dropping talk of truth, Buridan revised the modal criterion to read: "if it is impossible that things are as the premise signifies without their being as the conclusion signifies" (*Tract. de consequentiis* I.3).[21]

The need to replace talk of truth with talk of signification had been appreciated a generation before Buridan by Bradwardine. Suppose, he writes, that nothing is being referred to, and consider this argument:

Nothing is being referred to
So this is not being referred to,

where 'this' refers, say, to Socrates. The argument has the (valid) form of a universal instantiation. Yet the premise is true, by hypothesis, and the conclusion is false since 'this' refers to Socrates. But that reasoning is sophistical, Bradwardine observes. The premise was true when it was uttered, according to the hypothesis; the conclusion is false only because the situation changes when Socrates is referred to. 'This is not referred to' can never be true, any more than can 'No proposition is negative,' but it is still possible that Socrates is not referred to and that there be no negative propositions. So "a proposition is not possible

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[21] See also Buridan, *Summulae de dialectica* tr. IX [*Sophismata*] ch. 8, tr. Klima, pp. 955–6. Note, however, that for Buridan the phrase 'as . . . signifies' is shorthand for a complicated condition in terms of supposition (ibid., ch. 2, pp. 849–59).

or impossible according to whether it can or cannot be true, but on account of whether things can or cannot be as is signified by it" (*Insolubilia* 11.6). We need to distinguish the question whether the circumstance described by a proposition could or could not obtain from the question whether the proposition could or could not be true.[22]

This raises an important point about the general rules of inference. The above inference from Bradwardine appears to be an instance of universal instantiation, but in fact it is not a correct instance. Even the Law of Identity, to infer p from p, can be undermined if p can change its signification between premise and conclusion. This is the basis of one of Roger Swineshead's iconoclastic theses from the 1330s, that a formally valid argument can have a true premise and a false conclusion (*Insolubilia*, ed. Spade, p. 189). Let A denote the conclusion of the following argument:

A is false
So A is false.

A, in addition to denoting the argument's conclusion, is also an example of the Liar paradox, which Swineshead thought falsified itself, and so was false. Hence the premise is true (A is false), but the conclusion is false (it is A). In fact, Bradwardine had anticipated and refuted this suggestion ten years earlier on the grounds that it is a fallacy of the relative and the absolute (*secundum quid et simpliciter*). According to Bradwardine, the conclusion signifies not only that it is false, but also that it is true, as a consequence of his second postulate, mentioned earlier ('Every proposition signifies whatever follows from it absolutely or *ut nunc*'). The argument is subtle, but the upshot is that "inferring the conclusion [A] absolutely according to the whole of what it signifies is to proceed from the premise *secundum quid* [A is false] to *simpliciter* [A is false and true]" (*Insolubilia* 7.11.2).

MODAL AND EPISTEMIC INFERENCE

Aristotle states the basic closure principles of alethic modal logic in his *Prior Analytics* (34a22–4): "If then, for example, one should indicate the premises by A and the conclusion by B it would not only result that if A is necessary B is necessary, but also that if A is possible, B is possible." That is, from $\Box(A \to B)$ we may infer $\Box A \to \Box B$ and $\Diamond A \to \Diamond B$, where '$\Box$' denotes necessity and

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[22] Arthur Prior picked up the distinction between being possible and possibly being true in his article "The Possibly-True and the Possible," *Mind* 78 (1969) 481–92.

'◇' possibility. He adds the characteristic thesis of necessity, $\Box A \rightarrow A$, at *De interpretatione* 23a21: "that which is of necessity is actual," and the thesis relating necessity and possibility, $\sim\!\Diamond A \leftrightarrow \Box\!\sim\!A$: "when it is impossible that a thing should be, it is necessary ... that it should not be" and vice versa (22b5–6). Aristotle uses the closure principles to show that universal and particular modal propositions convert in the same way as do non-modal propositions; for instance, 'All A is necessarily B' converts simply to 'Some B is necessarily A' (25a33). However, this seems to require that we interpret 'All A is necessarily B' in the compounded sense, that is, *de dicto*.

The distinction between compounded and divided senses derives from Chapter 4 of Aristotle's *De sophisticis elenchis*, where he describes the fallacy of amphiboly – that is, of confusion over grammatical construction. For example, he notes, 'A man can walk while sitting' is true in the divided sense ('When he is sitting, it is possible that he walk' is true) but not in the compounded sense ('It is possible that a man walk at the same time as sit' is false). Here, the false proposition attributes possibility to the *dictum* 'that a man walk and sit,' so it is false *de dicto*; the true proposition predicates possibly walking of a sitting man, so it is true *de re*. The *de re/de dicto* distinction is a special case of, but narrower than, the divided/compounded one. For example, 'I believe p but not-p' has both compounded ('I believe both p and not-p') and divided ('Not-p but I believe p') senses, but it is not ambiguous *de re/de dicto*.

As applied to modal propositions, the compounded/divided distinction was the basis of a long-running puzzle for the ancients as well as the medievals concerning Aristotle's theory of the modal syllogism. Since 'All A is B' entails 'Some B is A,' 'Necessarily, all A is B' (*de dicto*) entails 'Necessarily, some B is A' by the closure principle: $\Box(p \rightarrow q) \rightarrow (\Box p \rightarrow \Box q)$ (with 'All A is B' for 'p' and 'Some B is A' for 'q'). Thus, it seems that Aristotle must take such modal assumptions in the compounded sense, *de dicto*. In *Prior Analytics* I.9, however, Aristotle accepts the validity of the modal version of Barbara with necessary major premise and non-modal minor (1), while rejecting the corresponding form with necessary minor premise and non-modal major (2):

(1) All B is necessarily C (2) All B is C
    All A is B All A is necessarily B
    So all A is necessarily C So all A is necessarily C

For, although all animals move (All B is C), and all men are necessarily animals (All A is necessarily B), no men necessarily move (30a31). Yet, syllogism (1) can be similarly invalidated if the modal premise is taken *de dicto*. For example, although it is necessary that every B is B (*de dicto*), it does not follow that

if all *A* is *B*, necessarily all *A* is *B*, even *de dicto*. Hence, one might conjecture that Aristotle took the major premise in syllogism (1) *de re*, for so taken, in the divided sense, the predicate is 'necessarily *C*,' and (1) is then an instance of non-modal Barbara. Thus we find Ockham, for instance, noting that in the first figure "from a necessary major taken in the divided sense and a non-modal minor, a necessary conclusion always follows in the divided sense but not in the compounded sense" (*Summa logicae* III-1.30 [I: 440]).

Ockham's view was a common one – but it leaves a puzzle, since it seems to attribute a confusion to Aristotle, taking modal premises in the compounded sense in Chapter 3 of the *Prior Analytics* but in the divided sense in Chapter 9.[23] In addition, although medieval thinkers generally accepted Aristotle's verdict on modal Barbara, they nonetheless differed in other cases. Indeed, John Buridan did not accept Aristotle's verdict even in this case. He interpreted the subject of a divided modal proposition as having its range extended ("ampliated") from the actual to the possible: "In all divided modals, of necessity and of possibility, the subject is ampliated to supposit for those that can be unless that ampliation is prevented by adding the phrase 'that is' to the subject" (*Tract. de consequentiis* IV.1, p. 111). Thus 'All *A* is necessarily *B*' is read as saying that everything that is or may be *A* is necessarily *B*. The modal syllogisms above consequently commit the fallacy of four terms – that is, one of the terms is equivocal, standing for '*B*' in one premise, and 'what is or may be *B*' in the other. (On supposition and ampliation, see Chapter 11.)

Why does Buridan interpret the modal premise in this way? The analogy with tensed propositions is instructive. Consider first, 'Not all *A* was *B*.' Reflection shows that this is true if something that is *A* wasn't *B*, or if something that was *A* wasn't *B*. Medieval authors further added that, being negative, the proposition is also true if nothing is *A*, in order to preserve the relations of the Square of Opposition, as noted earlier. By analogy, the modal O-proposition, 'Not all *A* might be *B*' is true if nothing is *A* or something that is or might be *A* might not be *B*. Consequently, its contradictory, the modal A-proposition, 'Every *A* is necessarily *B*,' is true if something is *A* and everything which is or might be *A* must be *B*. However, although the divided modal versions of Barbara and Celarent fail, the divided modal versions of Darii and Ferio, with particular minor premises, are valid by Buridan's lights (as they were by Aristotle's). Buridan wrote: "The sixteenth conclusion: from a major premise of necessity and an assertoric minor premise, there is always a valid syllogism

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23 For an account which avoids attributing such an error to Aristotle, see Nicholas Rescher, "A New Approach to Aristotle's Apodeictic Syllogisms," in N. Rescher (ed.) *Studies in Modality* (Oxford: Blackwell, 1974) pp. 3–15.

in the first figure to a particular conclusion of necessity, but not a universal one" (ibid., IV.2, p. 124). For example, given that necessarily every *B* is *C*, not everything that is or might be *A* must be *C* if every *A* is in fact *B*, for if it were not *A* it might not be *B*; but if some *A* is *B*, something that is or might be *A* is *B*, and so must be *C*, validating the divided mixed necessity version of Darii with assertoric minor premise.

Finally, let us turn to inferences in what is often called "epistemic logic," which despite the name includes propositions not only about knowledge, such as '*a* knows that *p*' (which we may symbolize as K_ap), but also about belief, '*a* believes that *p*' (B_ap), desire, understanding, doubt, obligation, permission, and all so-called propositional attitudes. The first question to ask about each of these operators is whether they are closed under consequence, or better, under what form of inference they are closed. (Knowledge, for instance, is closed under consequence if knowing that *p* entails knowing every consequence of *p*.) Ralph Strode gives this as his thirteenth rule: "if the premise is known, the conclusion is known" (*Tract. de consequentiis* 1.1.06). This has been understood as the implausible claim that knowledge is closed under consequence *tout court*.[24] But Strode's proof of this rule reads: "The premise is known by you, from which it follows that you know things to be as it principally signifies, and as it principally signifies, you know it to signify. Moreover, you know this conclusion to follow from that premise, so you know it to signify as the conclusion signifies" (ibid., 1.2.31). This makes it clear that Strode's rule is intended to be the more modest $K_a(p \rightarrow q)$, $K_ap => K_aq$, that knowledge is closed under *known* consequence.

Although it is plausible that knowledge is closed under known consequence, such closure is implausible for other attitudes. Walter Burley has an amusing example. Clearly, if I am stuck in the mud with £100, I am stuck in the mud, and I know that this follows. But though I might want to be stuck in the mud with £100 (if that is the best way to obtain it), I might nonetheless not want to be stuck in the mud.[25] Amusing, yes; convincing, no. It is reminiscent of counterexamples to Strengthening the Antecedent (that, assuming that if *p* then *q*, it follows that if *p* and *r* then *q*), on the ground that if, say, I put milk in my tea, I will like it, but if I put milk and diesel oil in my tea, I will not. Yet if the latter conditional is indeed true, then the former is false (absent an exceptive clause, 'milk and nothing else'). So, too, for Burley's £100. If I do want the £100, then (again, given that this is the best way to obtain it) I will have to

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[24] See Ivan Boh, *Epistemic Logic in the Later Middle Ages* (London: Routledge, 1993) p. 96 and, following him, Simo Knuuttila, *Modalities in Medieval Philosophy* (London: Routledge, 1993) p. 177. Both attribute this claim to Strode, although Boh half-realizes the mistake on the very next page.

[25] *Purity of the Art of Logic*, ed. Boehner, p. 87 (cf. p. 206); tr. Spade, p. 175 (cf. p. 10).

want to be stuck in the mud (with the £100). A better example is perhaps that given by Roger Roseth (and others):[26] in order to repent, I must be guilty of sin (and know that I am guilty of sin). But though I may wish to repent, and indeed ought to wish it, it does not follow that I wish to be guilty of sin, nor ought I to wish it.

[26] See Knuuttila, *Modalities in Medieval Philosophy*, p. 195.

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SOPHISMATA

PAUL VINCENT SPADE

The medieval sophismata literature is a genre of academic argument that began to take shape by the early twelfth century, grew in importance in the thirteenth and fourteenth centuries, and lasted to the end of the Middle Ages. This chapter offers only the briefest overview of that literature. Although some overall patterns can be discerned, the boundaries of the genre are ill-defined and seem to have been so even in the Middle Ages. Still, it is clear that sophisms were the occasion for drawing many subtle distinctions and pursuing theoretical issues in a variety of fields.

BACKGROUND

Sophismata is the plural of the Greek singular noun *sophisma*. Originally, the words did not have the derogatory sense of the modern English 'sophism' or 'sophistry.' Instead they referred to whatever a *sophistēs* or "sophist" produced. A "sophist" was anyone who dealt in "wisdom" (*sophia*) in a very broad sense of the term. The word was applied, for example, to Homer and to the Seven Sages of ancient Greece. By the time of Socrates, however, 'sophist' had come to be used especially to refer to those who used debate and rhetoric to defend their views and who offered to train others in these skills. Because they accepted payment for their services, and because some of them employed their skill to pursue unjust cases in courts of law, the term acquired the connotation of someone who uses ambiguous, deceitful and fallacious reasoning to argue a point. Plato's hostility to the sophists is well known, and indeed he is probably the one most responsible for the disparaging connotations 'sophist' and related words commonly have today.[1]

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[1] The best discussion of the early Greek sophists remains G. B. Kerferd, *The Sophistic Movement* (Cambridge: Cambridge University Press, 1981).

Sophisma and *sophismata* were taken over intact into classical Latin, where they were usually but not always used in the negative or pejorative sense.[2] Augustine, for instance, continues this usage when he writes: "For there are many things called sophisms, false conclusions of reasoning, and many of them so imitate true conclusions that they deceive not only slow people but even clever ones who are paying less diligent attention" (*De doctrina christiana* II.31.48). By at least the middle of the twelfth century, however, the words are found with increasing frequency in Latin with no sense of disapproval at all. Instead, they are used quite neutrally to refer to the discussion of certain kinds of puzzling sentences, or to the sentences themselves so discussed, often quite artificial ones.[3] Because this neutral, non-disparaging medieval sense is at variance with modern English usage, some scholars prefer to keep the original *sophisma* and *sophismata* as terms of art rather than to translate them.[4] I shall not strictly observe this scruple here, but it is this medieval, non-pejorative sense of 'sophism' that is the focus of the present chapter.

A medieval sophism, then, is not just a piece of idle "sophistry" or argumentative fallaciousness, even if that meaning was never entirely lost.[5] Instead, it involves a kind of "problem-sentence," a sentence for which one can give more or less plausible and persuasive arguments on both sides, both pro and con. Such sentences served as vehicles for illustrating logical rules and distinctions or other theoretical points.

It is tempting to suppose that the emergence of the sophismata literature in the twelfth century, and particularly the use of the terminology of "sophisms"

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[2] E.g., Cicero, *Academica Priora* II.24.75, who explains "for that is what [Stilpo, Diodorus and Alexinus] call fallacious little conclusions"; Seneca, *Epist.* 45.8 and 111.1; Aulus Gellius, *Noctes Atticae* 18.13.2. In all these places, the sense is quite scornful. But Seneca, *Epist.* 87.38, and Gellius, *Noctes Atticae* 18.2.10, can be read without any negative connotations at all.

[3] For the early sophismata literature, see Martin Grabmann, *Die Sophismataliteratur des 12. und 13. Jahrhunderts mit Textausgabe eines Sophisma des Boethius von Dacien* (Münster: Aschendorff, 1940); L. M. de Rijk, *Logica modernorum: A Contribution to the History of Early Terminist Logic (*Assen: Van Gorcum, 1962–7). It is sometimes said that the word 'sophism' in the medieval literature did *not* refer to reasoning or arguments: see, e.g., Norman Kretzmann, "Socrates Is Whiter than Plato Begins to be White," *Noûs* 11 (1977) p. 12 n. 9; Fabienne Pironet, "Sophismata," in E. Zalta (ed.) *The Stanford Encyclopedia of Philosophy* (http://plato.stanford.edu, spring 2006) sec. 2.1. But this needs to be qualified. Many sophism sentences are stated as inferences or "consequences" (e.g., John Buridan, *Sophismata* VIII.1–3). But it remains true that the term 'sophism' was not used to refer to reasoning *about* the sophism sentence, whether that sophism sentence is stated as a consequence or not.

[4] Kretzmann, "Socrates Is Whiter," p. 12 n. 9; Pironet, "Sophismata," sec. 1; cf. Stephen Read, *Sophisms in Medieval Logic and Grammar: Acts of the Ninth European Symposium for Medieval Logic and Semantics* (Dordrecht: Kluwer, 1993) p. xii.

[5] E.g., Robert Holcot, *Sent.* 1.1 dub. 1, arg. 4, refers to someone who, knowing no better, assents to the conclusion of a "sophism" against an article of faith. Here the word refers simply to a fallacious argument with a false conclusion.

itself, had something to do with the circulation of the newly available translation of Aristotle's *Sophistic Refutations*.[6] The temporal coincidence is certainly there, but one should not make too much of it. For while it is true that the *Sophistic Refutations* prompted intense new interest in fallacies and in the kinds of distinctions frequently drawn in the sophismata literature, and while the study of that work contributed greatly to the newly developing theories of "properties of terms" that were among the most characteristic features of medieval logic (see Chapter 11),[7] it is also true that Aristotle's little treatise simply does not read like a medieval discussion of "sophisms." Unlike Aristotle's text, medieval sophismata proceed according to a stylized "question" format for disputation – the roots of which go back much earlier than the widespread availability of the *Sophistic Refutations* in Latin in the early twelfth century.[8] Although no one knows its precise origins, a prominent early example of this "question" format can be found in Boethius's famous early sixth-century discussion of the problem of universals in his *Second Commentary on Porphyry's Isagoge*.[9]

THE FORMAT AND PURPOSE OF MEDIEVAL SOPHISMS

As mentioned, sophism sentences admit of plausible arguments both for and against. The typical format begins by stating the sophism sentence and presenting these arguments pro and con. Often several arguments are given on each side, and they can come from a variety of sources, depending on the context – logic, grammatical theory, philosophy of nature, appeal to authoritative sources, and so on.

After reviewing the preliminary arguments, the author gives his own view of the matter. This is where the main theoretical work of the discussion gets done. The author may draw distinctions, present theoretical points, stipulate rules for disambiguating sentences, and so forth, but ultimately delivers a kind of "verdict" between the opposing sides. Then, in the last part of the format (sometimes omitted), he explains what he takes to be wrong with the arguments presented for the losing side.[10]

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[6] On this translation, see Bernard Dod, "Aristoteles Latinus," in N. Kretzmann *et al.* (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press 1982) pp. 46, 53–5.

[7] De Rijk, *Logica modernorum*.

[8] Anthony Kenny and Jan Pinborg, "Medieval Philosophical Literature," in Kretzmann *et al.*, *Cambridge History of Later Medieval Philosophy*, pp. 24–5.

[9] Ed. Brandt, pp. 159–67. Translated in P. V. Spade, *Five Texts on the Mediaeval Problem of Universals: Porphyry, Boethius, Abelard, Duns Scotus, Ockham* (Indianapolis: Hackett, 1994) pp. 20–5.

[10] Variations on this format are common. John Buridan, for example, often presents a group of several sophisms at once, giving the arguments pro and con for each one individually, then explaining

This account is correct as far as it goes, but it is too broad. As it stands, it describes no more than the "question" format widely used in a variety of medieval academic contexts, by no means just in sophisms. It would fit, for example, any of the articles in Thomas Aquinas's *Summa theologiae* or his disputed questions on various topics. Yet none of those were called "sophisms."

Still, if the above account of sophisms is too broad, it is exasperatingly difficult to come up with a better one. In the end, the term seems simply not to have been used in any very precise sense, and the distinction between sophisms and other types of medieval "questions" is not a sharp one. Nevertheless, there are some additional factors to consider.

First, in the classic question format (as found in Aquinas and a great many other authors), the issue was framed in the form of a yes/no question, typically introduced by "whether." Sophism sentences, on the other hand, were more commonly given as statements, not as questions. Compare Aquinas, *Summa theol.* 1a 7.3, "Whether an actually infinite magnitude can exist," with Buridan's declarative sophism, "Nobody lies" (*Sophismata* I soph. 6). But this syntactical fine point was not universally observed.[11]

Second, and perhaps more striking, there is a difference of focus and purpose. With the question format generally, the interest is usually in whether the answer to the question is yes or no. With sophisms, it is otherwise. There the point is often not the truth or falsity of the sophism sentence as stated, but something else entirely. When Aquinas, for instance, asks "Whether an actually infinite magnitude can exist," his purpose is to settle exactly that. (He says no.) Even when the question is hardly controversial for him and we know very well what his answer is going to be – as when he asks (*Summa theol.* 1a 2.3) "whether God exists" and presents his famous "five ways" in reply – the focus of his discussion is still on the question as asked.

By contrast, in Buridan's sophism "Nobody lies," the center of attention is not really on whether people lie. In fact, the discussion *assumes* that the

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the theoretical considerations that will provide the materials for solving all of them, and only then responding to the sophisms one by one. See, e.g., Buridan, *Sophismata* I, where he rehearses the preliminary arguments for no fewer than six sophisms dealing with the significations of terms and sentences, before presenting his own theory in eleven "conclusions" and finally returning to respond to the six sophisms in sequence.

[11] See James Weisheipl, "Curriculum of the Faculty of Arts at Oxford in the Early Fourteenth Century," *Mediaeval Studies* 26 (1964) pp. 177f. Again, Roger Bacon's *Summa de sophismatibus et distinctionibus* (ed. Steele *et al.*, fasc. 14) proceeds mainly in terms of yes/no questions. On the other hand, Bacon himself does not call his questions sophisms, and perhaps the only reason to think they are is the *title* of the work. Grabmann, *Sophismataliteratur*, p. vii, denies they are "eigentliche sophismata," but does not say why. He is certainly willing to describe other collections of yes/no questions as sophismata (see, e.g., pp. 25–6).

sentence is false and that people do lie. Rather than giving an argument for this, Buridan says simply, "The opposite [of the sophism sentence] is obvious." Instead, the point of the discussion is to examine the theoretical notion, which Buridan accepts, that spoken language expresses thought, and that every spoken sentence corresponds to a semantically equivalent mental sentence. (How can this be so if lying is saying the *opposite* of what we think? This is the nub of the sophism.)

The argumentative role of medieval sophisms was thus often very much like that of Bertrand Russell's 'The present king of France is bald' or Frege's 'The morning star is the evening star.'[12] The real interest in Russell's and Frege's sentences does not of course lie in the condition of the royal head or in the planet Venus. In each case, there is a substantive philosophical point to be made, and the quoted sentence is merely the vehicle chosen for making it. So, too, with medieval sophisms. There is always a theoretical matter underlying their discussion, even if it is far removed from the truth or falsity of the sophism sentence itself. If one does not realize what it is, the sophisms can appear utterly inane. Thus William Heytesbury's *Sophismata asinina* consists of several sophisms, stated in the form of arguments or "consequences," each of which concludes that you are an ass!

Third, many researchers have pointed out the prominent role of sophisms according to the statutes for the arts curriculum at medieval universities. Indeed, Fabienne Pironet says, "I believe it is no exaggeration to say that *sophismata* in the Faculty of Arts were as important as Biblical exegesis in the Faculty of Theology."[13] In fact, however, the actual term 'sophism,' in the neutral and non-pejorative sense that concerns us in this chapter, tended to be confined to certain fields of study in the arts faculty: grammar, logic (including parts of what we would today call philosophy of language), and the more "mathematical" aspects of natural philosophy (continua, infinity, change). It would be hard, for instance, to find a medieval sophism the point of which was to address questions of moral psychology, freedom of the will, the matter/form distinction, or the four Aristotelian causes, even though these too were topics discussed in the faculty of arts. This is not to say such issues were not frequently treated in the two-sided "pro and con" manner, but only that such treatments were not called "sophisms." It is sometimes said that sophisms can be found in theology, a separate academic faculty altogether, but a careful reading of the texts cited

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[12] Cf. Kretzmann, "Socrates Is Whiter," p. 6.

[13] Pironet, "Sophismata" sec. 3. See also Edith Sylla, "Oxford Calculators," in Kretzmann *et al.*, *The Cambridge History of Later Medieval Philosophy*, pp. 540–63; Weisheipl, "Curriculum," pp. 177–81.

in support of this claim suggests that the actual term is rare there, and when it does occur, it is only in the negative sense of a fallacious argument with a false conclusion.[14]

SOPHISMS AND RELATED GENRES

Sophisms cannot be sharply distinguished from other formats and styles of discussion in the Middle Ages. Still, we find the word starting to be used with some frequency as early as Adam of Balsham's *Ars disserendi* (1132), mainly as a way of describing fallacies of ambiguity (both equivocation and amphiboly).[15]

Likewise, by the early twelfth century medieval authors were interested in a related issue, the logical function of what Priscian the grammarian (*fl.* 500) had called *syncategoremata* (*Institutiones grammaticae* II.15). These were said to be expressions that cannot stand alone as the subject or predicate of a sentence, but "co-signify" together with words that can do that, which came to be called *categoremata* (see Chapter 12). This way of drawing the distinction would suggest that, in terms of modern formal semantics, the role of *categoremata* in a language is fixed by its models, whereas the role of *syncategoremata* is fixed by its valuation rules. *Syncategoremata* would thus be what we call "logical particles."

While this will work to a first approximation, in fact the situation is more complicated. Medieval authors sometimes distinguished between a categorematic and a syncategorematic *use* of a single expression. Thus Socrates is not his foot or his ear; rather, Socrates is the *whole* Socrates, nothing less. In that case 'whole' just means "entire" and is said to be used categorematically (even though, note, it is not here used by itself as the subject or predicate). On the other hand, Socrates's foot is less than (smaller than) Socrates, and likewise his ear, and so on for all Socrates's physical parts. Thus the *whole* Socrates (that is, every part taken individually) is less than Socrates. In this case, 'whole' is said to be used syncategorematically.[16]

Such expressions provide ample opportunity for ambiguity and puzzling arguments. In the thirteenth century, they were discussed in often loosely structured *De syncategorematibus* treatises, such as those by William of Sherwood and Peter

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[14] See Holcot, *Sent.* 1.1 dub. 1, arg. 4. For the finding of sophisms in theology, see Simo Knuuttila, "Trinitarian Sophisms in Robert Holcot's Theology," in Read, *Sophisms in Medieval Logic and Grammar*, pp. 348–56.

[15] See Lorenzo Minio-Paluello, "The *'Ars disserendi'* of Adam of Balsham 'Parvipontanus'," *Mediaeval and Renaissance Studies* 3 (1954) 116–69, and de Rijk, *Logica modernorum* I: 62–81.

[16] See William of Sherwood, *Syncategoremata* (ed. O'Donnell, p. 54; tr. Kretzmann, pp. 40–1). The example is a common one.

of Spain. Gradually, however, much of this material came to be absorbed into the more stylized sophism format.[17]

Certain kinds of sophisms (namely, semantic paradoxes like the Liar) were discussed under the heading "insolubles." Others appeared in treatises called *Distinctiones* or *Abstractiones*, or in more comprehensive treatments of logic in general. The variations seem endless.[18]

Sometimes sophisms were discussed in treatises on *exponibilia* and solved by appeal to the theory of "exposition," a method of something like "contextual definition" that became increasingly important in the later Middle Ages.[19] Exponible sentences were said to be sentences that are categorical in their explicit form, but that implicitly require a molecular or "hypothetical" analysis (Ockham, *Summa logicae* II.11; Burley, *On the Purity of the Art of Logic* sec. 500). Thus Walter Burley remarks in the early fourteenth century that 'Whatever man runs is moved' can be expounded either as the conditional 'If some man runs, he is moved' or else as a universally quantified sentence with a relative clause modifying the subject: 'Every man who runs is moved' (*Purity*, sec. 372). To use a more complicated example, Burley says the "reduplicative" sentence 'An isosceles insofar as it is a triangle has three angles equal to two right angles' is expounded by a total of five sentences, all of which are required for its truth: (i) 'An isosceles has three angles'; (ii) 'An isosceles is a triangle'; (iii) 'Every triangle has three angles'; (iv) 'If an isosceles is a triangle, it has three angles, etc.'; and (v) '*Because* an isosceles is a triangle, therefore it has three angles, etc.'[20]

Throughout the twelfth century, we find increasing use of the terminology of sophisms, although few (if any) instances that fully exhibit all the characteristics

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[17] See H. A. G. Braakhuis, *Die 13de Eeuwse Tractaten over Syncategorematische Termen* (Meppel: Krips Repro, 1979); Norman Kretzmann, "Syncategoremata, Exponibilia, Sophismata," in Kretzmann *et al.*, *The Cambridge History of Later Medieval Philosophy*, 211–45; Pironet, "Sophismata," sec. 4.

[18] See P. V. Spade, "Insolubles," in Zalta, *The Stanford Encyclopedia of Philosophy* (http://plato.stanford.edu, fall 2005). For *distinctiones*, see L. M. de Rijk, *Some Earlier Parisian Tracts on Distinctiones Sophismatum* (Nijmegen: Ingenium, 1988). Other variations are mentioned below.

[19] Mikko Yrjönsuuri, *"Expositio* as a Method of Solving Sophisms," in Read, *Sophisms in Medieval Logic and Grammar*, 202–16. On the theory of exposition, see P. V. Spade, "Ockham, Adams and Connotation: A Critical Notice of Marilyn Adams, *William Ockham*," *Philosophical Review* 99 (1990) pp. 608–12. The theory of "exponibles" had been established by the middle of the thirteenth century, but grew to enormous importance from the mid-fourteenth century on. See E. J. Ashworth and P. V. Spade, "Logic in Late Medieval Oxford" in J. I. Catto and R. Evans (eds.) *The History of the University of Oxford*, vol. II: *Late Medieval Oxford* (Oxford: Clarendon Press, 1992) pp. 43–4.

[20] Burley, *Purity*, sec. 950. It is not clear why all five "exponents" need to be listed separately, since they are not independent of one another. (Thus (i) follows from (ii) and (iii), or from (ii) and (iv).) The most extensive account of the history of the theory of reduplication is Allan Bäck, *On Reduplication: Logical Theories of Qualification* (Leiden: Brill, 1996).

described above.[21] Even a text as late as Roger Bacon's *Summa de sophismatibus et distinctionibus* (1240s) does not quite fit. Nevertheless, a relatively "pure" form of the genre may be found in Richard the Sophister's *Abstractiones* (1230s or 1240s), containing over three hundred sophisms.[22] By the early fourteenth century, sophismata are quite common. Good examples may be found in Richard Kilvington's *Sophismata* (early 1320s), Ockham's *Summa logicae* (*ca.* 1323), Burley's *Purity* (the longer treatise from 1325–8, the shorter treatise from before that), William Heytesbury's *Sophismata* (1330s) and *Rules for Solving Sophisms* (1335), John Buridan's *Sophismata* (= Tract 9 of his *Summulae de dialectica*, probably 1320s–40s), Albert of Saxony's huge *Sophismata* (1351–62), and Paul of Venice's *Sophismata aurea* (*ca.* 1399).

Each of these works is demonstrably important and influential on subsequent discussions of the topics they treat. Yet none of them can be said to be important for shaping the sophismata literature itself. Indeed, it would be hard to find any one work that can be said to have done that. Perhaps it is this very "decentralized" nature of the sophismata literature that makes it so hard to define.

EXAMPLES OF SOPHISMS

It was stated above that a theoretical point always underlies the discussion of sophisms, no matter how silly they might otherwise appear. Frequently the point is merely to alert us to kinds of semantic ambiguity, as in the use of 'whole' as described above, or in the distinction between the collective and the distributive use of quantifiers.[23] Thus 'All the apostles are twelve' is true if 'all' is taken collectively, since altogether there are twelve apostles, but is false if 'all' is taken distributively, since none of them is twelve but rather each of them is one. (Peter is one, James is another one, and so on.) Hence one cannot argue: "All the apostles are twelve; Peter and James are apostles; therefore, Peter and James are twelve." Both readings are generally allowed, as long as one does not confuse them.[24]

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[21] Except for Adam of Balsham's *Ars disserendi*, all of this literature seems to be anonymous. Much of it is surveyed in Grabmann, *Sophismatenliteratur* and de Rijk, *Logica modernorum*.

[22] See Paul Streveler, "Richard the Sophister," in Zalta, *The Stanford Encyclopedia of Philosophy* (http://plato.stanford.edu, spring 2005). For Bacon, see n. 11 above.

[23] The latter is one version of the medieval distinction between the "composed" and the "divided" senses. See Georgette Sinkler, "Medieval Theories of Composition and Division" (Ph.D. dissertation, Cornell University, 1985).

[24] The sophism is a common one, found from the very beginning of the literature. See de Rijk, *Logica modernorum*, I: index, 647, II.1: 487, II.2: index, 855. Where both readings are allowed, the last part of the sophism format – the replies to arguments for the losing side – is omitted, since of course there *is* no losing side.

In other cases, the ambiguity is one of scope. Thus 'All men are asses or men and asses are asses' (Albert of Saxony, *Sophismata*, soph. 11) can be read with either the 'or' or the 'and' as having the greater scope. In the former sense, it is a false disjunction the second disjunct of which has a compound subject ('men and asses'). In the latter, it is a true conjunction the first conjunct of which has a disjoint predicate ('asses or men'). Again, both readings are allowed.[25]

It is noteworthy that sophisms based on ambiguity rarely if ever involve straightforward *lexical* ambiguity, whereby for example the English 'bank' can mean either a kind of financial institution or the side of a river. Rather they concern structural or semantic ambiguity at the level of an entire sentence.

In some cases, the sophism sentence may be initially ambiguous enough to provide plausible arguments for both sides, but the discussion of the sophism legislates in favor of one reading to the exclusion of the others. In effect, the sophism is used to illustrate and recommend a particular way of regimenting language. Thus, Heytesbury maintains that the sentence *Infinita sunt finita*[26] is true because *infinita* is not being used there categorematically (*Sophismata* 18, ed. 1494, f. 130va). If it were, the sentence would mean either "The infinites are finite" (reading *infinita* as the subject) or "Infinite are the finites" (that is, "The finites are infinite" – reading *infinita* as the predicate), and both of those are false. (Not a single infinite is finite; on the contrary, each of them is infinite. Likewise, not a single finite [thing] is infinite; rather, each of them is finite.) Instead, Heytesbury maintains, the word *infinita* is being used in the sentence "syncategorematically." In effect, it encodes a recipe for unpacking the sentence's truth conditions on the basis of what its categorematic term *finita* signifies (namely, all finite things); roughly, the sentence means that no matter how many such things you pick, you could have picked twice as many more, three times as many more, and so on without limit. And that is true. (Analogously, when we say a process "goes on to infinity," we do not mean it ends at infinity; instead, we mean it does not end at all.)[27]

Heytesbury adopts this reading because, he claims, "according to the usual way of speaking" (although individual users may disregard this if they insist), if

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[25] Note that 'and' and 'or' are allowed both as sentential connectives (yielding a complex proposition as the result) and as *term* connectives (yielding a complex *term* as the result).

[26] The sentence cannot be translated into English without disambiguating it and losing the point of the discussion. For an analysis of the sophism, see Edith Sylla, "William Heytesbury on the Sophism '*Infinita sunt finita*'," in J. P. Beckmann and W. Kluxen (eds.) *Sprache und Erkenntnis im Mittelalter* (Berlin: De Gruyter, 1981) II: 628–36.

[27] Other authors too had discussed categorematic and syncategorematic uses of 'infinite.' E.g., William of Sherwood, *Syncategoremata*, ed. O'Donnell, pp. 54–5; tr. Kretzmann, pp. 41–3.

'infinite' occurs on the subject side of a sentence (that is, before the copula) and if certain other conditions are met, then it is to be read syncategorematically; otherwise it is to be read categorematically.

It is doubtful whether this peculiar stipulation really conforms to the "usual way of speaking" at all. But note that it is a stipulation involving word order. Indeed, many authors appealed to artificial and arbitrary word order conventions in treating sophisms. One common device was to read the logical scope of certain words as always extending to the *right* of their occurrence in a sentence, not to the left. Walter Burley for instance held this explicitly for negation (*Purity*, sec. 59), and other authors adopted the convention in other contexts. It may be seen operating, for instance, in Albert of Saxony's rules for supposition in his *Perutilis logica*.[28] The fact that in modern quantification theory, as taught in elementary logic classes, quantifiers later in a sentence are taken as falling within the scope of those earlier in the sentence can be viewed as a descendant of this medieval convention. Burley, for example, solves a number of sophisms on exactly this basis (*Purity*, secs. 138–64). The convention is so familiar to us nowadays that it is worth emphasizing it is not the only one possible. (Consider, for example, "reverse Polish notation.") In fact, it is not even an especially "natural" convention, or else it would be much easier than it is to teach students how to translate from ordinary language into logical notation.

Sentences such as 'All men are asses or men and asses are asses' or *Infinita sunt finita* would be puzzling in any context. Sometimes, however, sophisms concern sentences that are not initially problematic at all, but become so in special contexts. Consider 'Socrates is saying a falsehood.' By itself there is nothing difficult about it in any way. Yet if Socrates himself makes that statement, and if it is the only thing he says, it becomes a version of the Liar paradox.[29] Sophisms, therefore, are often accompanied by a little story or "case" (*casus*) to set the context and motivate the opposing arguments.

In still other cases, sophism sentences are used as occasions not only to discuss ambiguity or to regiment language, but also to discuss larger theoretical issues, sometimes quite removed from language. Thus, the fourteenth-century Richard Kilvington devotes much of his *Sophismata* to problems reminiscent of Zeno's paradox, arising over continua, change, and motion.

[28] Albert of Saxony, *Perutilis logica*, ed. 1522, ff. 12vb–13rb. A discussion and partial translation of these rules may be found in Philotheus Boehner, *Medieval Logic: An Outline of its Development from 1250– c. 1400* (Manchester: Manchester University Press, 1952) pp. 103–14.

[29] Indeed, this formulation of the paradox became a standard one in the medieval literature on insolubles (e.g., Buridan, *Sophismata* II.6). See P. V. Spade, *The Mediaeval Liar: A Catalogue of the Insolubilia-Literature* (Toronto: Pontifical Institute of Mediaeval Studies, 1975).

Other popular topics include the intricacies of promising and debt.[30] Suppose I say: "I promise you a horse," in return for some service you have done me. Certainly I am under your debt and now owe you a horse. Yet there is no particular horse you can demand of me in repayment. No matter which horse you pick, I did not promise you *that* horse. Neither did I promise you a general or universal horse (if there even is such a thing) or "horsiness" (equinity). The issue here is partly semantic (what does 'horse' refer to in "I promise you a horse"?) and partly metaphysical (what *is* there to be referred to?).

Again, there are many sophisms involving modality, or epistemic and doxastic matters. Some of them merely concern what we nowadays call "quantifying into opaque contexts," such as Buridan's example: 'You know that the coins in my pocket are even in number,' given that there are exactly two coins in my pocket and you know two is an even number (*Sophismata* IV.10). These sophisms are interesting enough, but there are others that raise more unfamiliar issues.

Consider, for example, the sentence 'Socrates knows the sentence written on the wall to be doubtful to him' (Buridan, *Sophismata* VIII.13). This is one of those sophisms that require a story or case to set the context. Here the case stipulates that the sentence is the only one written on a certain wall, that Socrates sees it, does in fact doubt it (does not know whether it is true or false), and furthermore even *knows* that he doubts it. Is it then true or false?

It is hard at first to see the force of this sophism. Although Buridan's own presentation is extremely subtle, we might put the matter like this: Buridan posits that Socrates is "most wise," so that he can reason the case through. To begin with, then, Socrates does not know whether the puzzling sentence on the wall is true or false, any more than you or I do. He realizes this, however, and therefore doubts the sentence. Furthermore, being wise enough to follow this reasoning, he *knows* that he doubts the sentence (as in fact is stated by the case). But that means the sentence is true. Again, Socrates follows this too and so *knows* the sentence is true. But if he knows it is true, he does not doubt it after all, which (given what the sentence claims) means it is false. Once again, Socrates follows all this, ends up not knowing what to do, and so quite properly doubts the sentence. Realizing this, Socrates *knows* he doubts the sentence – and around we go.[31]

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[30] See Gyula Klima, " '*Debeo tibi equum*': A Reconstruction of the Theoretical Framework of Buridan's Treatment of the Sophisma," in Read, *Sophisms in Medieval Logic and Grammar*, 333–47. Many authors had something to say about such sophisms; Klima cites much of the relevant literature.

[31] This sophism is insightfully discussed in Tyler Burge, "Buridan and Epistemic Paradox," *Philosophical Studies* 34 (1978) 21–35.

GRAMMAR

IRÈNE ROSIER–CATACH

According to the medieval division of the sciences, grammar is one of the three arts of the trivium, along with logic and rhetoric. In its most theoretical form, however, the development of medieval grammar is closely connected to the development of logic;[1] in contrast, grammar as a didactic discipline, aimed at teaching Latin, is linked to other genres, such as the "poetic arts," lexicography, and studies of the classics. Our knowledge of theoretical grammar, which is the object of the present study, has increased tremendously over the past twenty-five years as new editions have become available. As this chapter demonstrates, the major contribution of the *modistae* of the late thirteenth century – the group most closely associated with the development of theoretical grammar – is now understood as part of a broader and more diversified picture, which shows the interplay of grammar with logic, philosophy, and theology.

EARLY TWELFTH CENTURY

Recent studies have investigated the degree of continuity in the linguistic arts between the early and later Middle Ages. John Scottus Eriugena's recently edited commentary on Priscian shows that sophisticated discussions can be found in the Carolingian period of important issues such as the corporeal or incorporeal nature of an utterance (is it, for example, a substance [the Stoics and Priscian], or a quantity [Aristotle]?) and the meaning of the categorical notions of substance, quality, action, or time (as they occur in the definition of the parts of speech).[2] The interplay between grammar and dialectic was

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[1] Sten Ebbesen and Irène Rosier-Catach, "Le *trivium* à la Faculté des arts," in L. Holtz and O. Weijers (eds.) *L'enseignement des disciplines à la Faculté des Arts (Paris et Oxford, XIIIe – XVe siècles)* (Turnhout: Brepols, 1997) 98–128.

[2] For the text, see Anneli Luhtala, "Early Medieval Commentary on Priscian's *Institutiones Grammaticae*," *Cahiers de l'Institut du Moyen Age Grec et Latin* 71 (2000) 115–88. See also "Glosses Based on Eriugena's Priscian Commentary," *Miscellanea Bibliothecae Apostolicae Vaticanae* 7 (2000) 199–213 and Paul Edward Dutton and Anneli Luhtala, "Eriugena in Priscianum," *Mediaeval Studies* 56 (1994) 153–63.

already present in Alcuin's *Dialogus*, and the use of Porphyry and of Aristotle's *Categories* and *De interpretatione* to rethink the definitions inherited from Donatus and Priscian is even more evident in Peter of Pisa and Sedulius Scottus.[3] The interplay between grammar and theology also became an important component of the medieval discussions of language, as seen in the ninth-century works of Gottschalk of Orbais on the Trinity,[4] and in the linguistic arguments used by Lanfranc of Bec and Berengar of Tours in their controversy over the Eucharistic conversion.[5]

At the turn of the eleventh into the twelfth century, Priscian's *Institutiones grammaticae* and Boethius's logical translations and commentaries – although hardly read in the earlier period – began to be studied in the same schools, and often by the same masters.[6] In spite of some shared interests, such as the problem of universals or the doctrine of categories, these commentaries show no sign of continuity with earlier Carolingian ones.[7] Particularly important for grammar are the *Glosulae in Priscianum*, which consist of two anonymous commentaries from the early twelfth century on Priscian's *Institutiones*, one on Priscian major (i.e. books I–XVI), and the other on Priscian minor (books XVII–XVIII on syntax), both extant in several versions.[8] The analyses developed by the *Glosulae*

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[3] Louis Holtz, "La grammaire carolingienne," in S. Auroux (ed.) *Histoire des idées linguistiques*, vol. II: *Le développement de la grammaire occidentale* (Liège: Mardaga, 1992) 96–106; Vivien Law, "La grammaire latine," in Auroux, *Histoire des idées linguistiques*, II: 83–95; Vivien Law (ed.) *History of Linguistic Thought: The History of Linguistics in Europe, from Plato to 1600* (Cambridge: Cambridge University Press, 2003) chs. 6 and 7; *Grammar and Grammarians in the Early Middle Ages* (London: Longman, 1997); Edoardo Vineis, "La linguistica medievale: Linguistica e grammatica," in G. Lepschy (ed.) *Storia della linguistica* (Bologna: Il Mulino, 1990) II: 11–101; C. H. Kneepkens, "The Priscianic Tradition," in S. Ebbesen (ed.) *Sprachtheorien in Spätantike und Mittelalter* (Tübingen: Narr, 1995) 239–64.

[4] Jean Jolivet, *Godescalc d'Orbais et la trinité* (Paris: Vrin, 1958).

[5] Jean de Montclos, *Lanfranc et Bérenger. La controverse eucharistique du XIe siècle* (Louvain: Université catholique, 1971); Toivo Holopainen, *Dialectic and Theology in the Eleventh Century* (Leiden: Brill, 1996); Irène Rosier-Catach, *La parole efficace: signe, rituel, sacré* (Paris: Seuil, 2004) ch. 5.1.

[6] See the report of William of Conches, as quoted in Édouard Jeauneau, "Deux rédactions des gloses de Guillaume de Conches sur Priscien," *Recherches de théologie ancienne et médiévale* 27 (1960) p. 238.

[7] See John Marenbon, *From the Circle of Alcuin to the School of Auxerre: Logic, Theology and Philosophy in the Early Middle Ages* (Cambridge: Cambridge University Press, 1981).

[8] There exists a 1488 edition of the *Glosulae* on Priscian maior that needs to be checked against manuscripts. (The commentary on Priscian minor in that incunable edition is not the *Glosulae*.) A critical edition of the *Glosulae* is currently in preparation by A. Grondeux, K. M. Fredborg, E. Lorenzetti, and myself. For the moment, only extracts have been published in various studies, and from various manuscripts. See R. W. Hunt, "Studies on Priscian in the Eleventh and Twelfth Centuries: I. Petrus Helias and his Predecessors," *Medieval and Renaissance Studies* 1 (1941–3) 194–231; Margaret Gibson, "The Early Scholastic Glosule to Priscian, *Institutiones Grammaticae*: The Text and its Influence." *Studi Medievali* 1 (1979) 35–54; L. M. de Rijk, *Logica modernorum: A Contribution to the History of Early Terminist Logic* (Assen: Van Gorcum, 1962–7); K. M. Fredborg, "*Tractatus Glosarum Prisciani* in ms. Vat. lat. 1486," *Cahiers de l'Institut du Moyen Age Grec et Latin* 21 (1977) 27–44; C. H. Kneepkens, "Master Guido and his View on Government: On Twelfth-Century

were influential, and widely used by Peter Abaelard. They were responsible for
important innovations; their originality lay in the interplay between grammar
and logic, which can be seen in their analysis of syncategorematic terms, of
the substantive verb (including the first use of the word *copula*), of predication
(with the introduction of the distinction between inherence and identity), and
of paronyms. Priscian's definition of the noun as signifying "substance with
quality"[9] served as the occasion for commentators developing a realist concep-
tion of universals, akin to William of Champeaux's "material essence realism."
Indeed, inspired by certain passages from Priscian (such as XVII.144), this realism
even took on a Platonic tone, with universals signifying ideas in God's mind.[10]
Interestingly, this discussion of universals – clearly influenced by Boethius's
commentary on the *Isagoge* – developed semantic consequences that led to the
influential distinction between signification (*significatio*) and denotation (*nomi-
natio, appellatio*): on this view, the name 'human being' *names* individual human
beings but *signifies* a common and universal quality shared by all members of the
human species.[11] The *Glosulae* also initiated discussions of reference (*nominatio*,

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Linguistic Thought," *Vivarium* 16 (1978) 108–41; Irène Rosier-Catach, "The *Glosulae in Priscianum*
and its Tradition," in N. McLelland and A. Linn (eds.) *Papers in Memory of Vivien Law* (Münster:
Nodus, 2004) 81–99.

    Although William of Champeaux, Abaelard's master, is not the author of the *Glosulae*, William
certainly used them to lecture on Priscian. In the *Notae Dunelmenses*, a set of notes on Priscian,
William's opinions (quoted as master G.'s) and the *Glosulae*'s are opposed to one another. For the
evidence, see Hunt, "Studies I," as well as Anne Grondeux and Irène Rosier-Catach, "Synthèse
grammaticale," in Rosier-Catach (ed.) *Les Glosulae super Priscianum, Guillaume de Champeaux,
Abelard: Arts du langage et théologie aux confins des XIe/XIIe siècles* (Turnhout: Brepols, forthcoming).
On William more generally, see Constant Mews, "Logica in the Service of Philosophy: William
of Champeaux and his Influence," in R. Berndt (ed.) *Schrift, Schreiber, Schenker: Studien zur Abtei
Sankt Viktor zu Paris und zu den Viktorinern* (Berlin: Akademie Verlag, 2005) 61–101. An edition of
the *Notae Dunelmenses* is being prepared by Franck Cinato, Anne Grondeux and myself.

[9] The "substance" is the referent, the thing, to which is attributed a "quality," that is, a determination
of some kind. For instance, on a Platonizing interpretation 'human being' means a thing that has
the common quality 'humanity,' whereas 'Plato' means the same thing but with the singular quality
'Platonity.'

[10] See de Rijk, *Logica* II.1, ch. 2; Fredborg, "Tractatus Glosarum Prisciani"; Constant Mews, "Nomi-
nalism and Theology before Abaelard: New Light on Roscelin of Compiègne," *Vivarium* 30 (1992)
4–33; Irène Rosier-Catach, "Abélard et les grammairiens: sur la définition du verbe et la notion
d'inhérence," in P. Lardet (ed.) *La tradition vive: mélanges d'histoire des textes en l'honneur de Louis Holtz*
(Turnhout: Brepols, 2003) 143–59; Irène Rosier-Catach, "Abélard et les grammairiens: sur le verbe
substantif et la prédication," *Vivarium* 41 (2003) 176–248; Irène Rosier-Catach, "Priscien, Boèce, les
Glosulae in Priscianum, Abélard: les enjeux des discussions autour de la notion de consignification,"
Histoire Epistémologie Langage 25 (2003) 55–84.

[11] Rosier-Catach, "Les *Glosulae in Priscianum*"; William of Conches took over this distinction; see
the text edited by K. M. Fredborg, "Some Notes on the Grammar of William of Conches,"
Cahiers de l'Institut du Moyen Age Grec et Latin 37 (1980) pp. 29 ff., and "Speculative Grammar," in
P. Dronke (ed.) *A History of Twelfth-Century Western Philosophy* (Cambridge: Cambridge University
Press, 1988) pp. 182–6.

which was to become *suppositio*) and coreference (*relatio*),[12] concepts that were also to play a major role in terminist logic (see Chapter 11). It is clear that these issues were the subject of lively discussion in the schools, because related topics arise in contemporary logical commentaries, especially those on the *Categories* and *De interpretatione.*

The *Glosulae in Priscianum maiorem* had a wide circulation, and were edited as a marginal commentary in the earliest incunabula edition of Priscian (Venice 1488).[13] The text was used by William of Conches in his commentaries on Priscian,[14] and by Peter Helias in his *Summa super Priscianum*. Peter's *Summa*, which was also revised, became very popular.[15] Like the *Glosulae*, the *Summa* uses ontology to build semantics; Peter explains, for instance, that it is because "substance [with the meaning of what stands under: *sub-stans*] unifies all other things, as far as it conjoins accidents, that the verb 'to be' has a copulative function" (ed. Reilly, p. 201).[16]

There was also some interplay between grammarians and theologians commenting on Boethius's theological *Opuscula*, such as Gilbert of Poitiers and Thierry of Chartres. Gilbert of Poitiers also uses Priscian's definition of the noun, but in a new way. He equates the "substance" meaning of the noun with the Boethian *id quod est* (that which is), and its "quality" meaning with the *id quo est* (that by which the *quod est* is). He also explains that, in a given proposition,

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[12] See de Rijk, *Logica* II.1, ch. 16; C. H. Kneepkens, "*Mulier quae Damnavit Salvavit:* A Note of the Early Development of the Relatio Simplex," *Vivarium* 14 (1976) 1–25; C. H. Kneepkens, "The *Relatio simplex* in the Grammatical Tracts of the Late Twelfth and Early Thirteenth Century," *Vivarium* 15 (1977) 1–30; C. H. Kneepkens, "'Suppositio' and 'supponere' in 12th-Century Grammar," in J. Jolivet and A. de Libera (eds.) *Gilbert de Poitiers et ses contemporains: aux origines de la Logica Modernorum* (Naples: Bibliopolis) 324–51.

[13] For other editions, see Margaret Gibson, "The Collected Works on Priscian: The Printed Editions 1470–1859" *Studi Medievali* 18 (1979) 249–60.

[14] See Jeauneau, "Deux rédactions"; Fredborg, "The Dependence of Petrus Helias' *Summa super Priscianum* on William of Conches' *Glose super Priscianum*," *Cahiers de l'Institut du Moyen Age Grec et Latin* 11 (1973) 1–57.

[15] Some thirty-one manuscripts have survived on Priscian major. The part on Priscian minor is preserved in only five manuscripts, and was soon supplanted by another tract, called after its incipit "*Absoluta cuiuslibet*" of a Peter of Spain (Petrus Hispanus, often referred to with the initials P. H., which entails confusion with Peter Helias), preserved in fifteen manuscripts, and circulated in a short and a long version, the long ones presenting various interpolations, some of which date from the end of the thirteenth century. It has been edited by C. H. Kneepkens, *Het Iudicium Constructionis* (Nijmegen: Ingenium, 1987); see R. W. Hunt, "*Absoluta*: The *Summa* of Petrus Hispanus on Priscianus minor," *Historiographia Linguistica* 2 (1975) 1–23; C. H. Kneepkens, "The *Absoluta cuiuslibet* attributed to P. H.," in I. Angelelli and P. Pérez-Ilzarbe (eds.) *Medieval and Renaissance Logic in Spain* (Hildesheim: Olms, 2000) 373–403.

[16] See C. H. Kneepkens, "Grammar and Semantics in the Twelfth Century: Petrus Helias and Gilbert de la Porrée on the Substantive Verb," in M. Kardaun and J. Spruyt (eds.) *The Winged Chariot: Collected Essays on Plato and Platonism in Honour of L. M. de Rijk* (Leiden: Brill, 2000) esp. pp. 253–5.

only one of these two meanings is operative: in the subject position the noun
signifies only substance (that is, it has a denotative meaning), whereas in a predi-
cate position it signifies only the quality – an opinion that was considered typical
of the so-called Porretan school that Gilbert founded and which produced log-
ical and grammatical texts.[17] On this analysis, the noun signifies not substance
with quality, as Priscian claimed, but substance *and* quality. Likewise, Gilbert
seems to have insisted on the difference between the *officium supponendi* and the
officium apponendi of the noun,[18] distinguishing three types of verbs (substantive,
vocative, adjective) according to the nature of the attributes (*apposita*).[19] This
contextual semantics would play an important role in the theologians' analysis
of propositions, especially in Trinitarian contexts.[20] In addition, the problem,
already present in the *Glosulae*, of whether Priscian's definition of the verb as
signifying action and passion applies to the substantive verb, and whether it
applies when used to talk about God and creatures, became a major issue in
twelfth-century theology.[21]

THE SECOND HALF OF THE TWELFTH CENTURY

Just as there were various schools in logic,[22] so there were different gram-
mar schools. Apart from the Porretans we can name the schools of William
of Conches, Ralph of Beauvais, Robert of Paris, and Robert Blund, among
others. Whereas semantics formed the major focus of the discussion in the first
half of the twelfth century,[23] in interrelation with developments in dialectic,

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[17] See the *Dialogus Eberardi et Ratii* (*ca.* 1193) (ed. Häring); the *Compendium logicae porretanum*
(ed. Ebbesen *et al.*); and the *Grammatica porretana* (ed. Fredborg and Kneepkens). See also the
Anonymus Leidensis discussed in K. M. Fredborg, "The Priscian Commentary from the Second Half
of the Twelfth Century: Ms Leiden BPL 154," *Histoire Epistémologie Langage* 12 (1990) 53–68. The
anonymous *Glosa* "*Promisimus*" (last quarter of twelfth century) oppose Priscian and the Porretan –
see the text in R. W. Hunt, "Studies on Priscian in the Twelfth Century: II. The School of Ralph
of Beauvais," *Mediaeval and Renaissance Studies* 2 (1950) p. 89. For Boethius's distinction between *id
quod est* and *id quo est*, see John Marenbon, *Boethius* (Oxford: Oxford University Press, 2003) ch. 5.
[18] *Grammatica porretana,* pp. 34–5; see Kneepkens, "Suppositio."
[19] *Grammatica porretana*, pp. 62–3. On the syntactic consequences of this doctrine, as far as the analysis
of transitivity is concerned, see again Kneepkens, "Grammar and Semantics," pp. 268–71.
[20] Luisa Valente, " 'Talia sunt subiecta qualia praedicata permittunt': Le principe de l'approche con-
textuelle et sa genèse dans la théologie du XIIe siècle," in J. Biard and I. Rosier-Catach (eds.) *La
tradition médiévale des catégories (XII e–XV e siècle)* (Louvain, Peeters, 2003) 289–311.
[21] Luisa Valente, *Logique et théologie: Les écoles parisiennes entre 1150 et 1220* (Paris: Vrin, 2008).
[22] Yukio Iwakuma and Sten Ebbesen, "Logico-Theological Schools from the Second Half of the
Twelfth Century: A List of Sources," *Vivarium* 30 (1992) 173–210.
[23] For instance, the *Glosulae* were interested in determining whether a property was a "real" or a
"vocal" one, distinguishing thus between *persona realis* and *persona vocalis*, and in the same way
for categories of mode, number, etc. William of Conches, followed by Peter Helias, classified the
accidents into purely formal properties (like conjugation of verbs) and "secondary significations."

syntax becomes of major interest among grammarians in the second half of the century.[24] One important discussion concerns the relation between the meaning of the word and its function (*officium, vis*).[25] The pronoun, for instance, does not have the same meaning as a proper noun (since the noun signifies substance with quality, whereas the pronoun signifies a "pure substance"), but it can have the *function* of the noun. This distinction between meaning and function was also raised for the consignificative parts of speech, or *syncategoremata* (see Chapter 11), leading to Abaelard's interesting solution (which explicitly contradicted the *Glosulae*) that these words do not have meaning, but contribute to the meaning of the sentence as acts of the mind.[26] The same distinction was at stake in discussions about the substantive verb – the disputed question in this case revolving around whether it had a meaning or only a function, and if it had the same meaning (often interpreted as existential import) both when used as a verb and when used as a copula.[27]

The important contribution to syntax realized by the grammarians of this period can be illustrated by four issues. The first is the notion of government (*regimen*), which integrates semantic and syntactic considerations. According to this notion, the relations between the words in a construction can be seen as semantic relations of "determination" (a notion borrowed from Boethius's *De divisione* and which also appears in logic), since an adjectival determination can imply a referential restriction, as in 'white man.'[28] But these relations can also be seen from a morpho-syntactical perspective, where grammatical cases play an important role: verbs are distinguished according to the "oblique cases" (*obliqui*) they can govern, parts of speech are described according to their property of being governed or not, and the government of each case (that is, the different constructions in which the name having such a case can enter) is carefully listed.

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[24] Among the most important works are these *Summae*: Robert of Paris (ed. Kneepkens, *Het Iudicium*, vol. II); Huguccio of Pisa, *Summa* (discussed in ibid., vol. I: 141–2, 648–50); Robert Blund, *Summa de grammatica* (ed. ibid., vol. III); Peter of Spain, *Summa* "*Absoluta cuiuslibet*" (ed. Kneepkens, *Het Iudicium*). For Ralph of Beauvais, see the *Glose super Donatum*. The anonymous *Glosa* "*Promisimus*" is full of interesting references to the masters of its time. See also Hunt, "Studies II."

[25] '*Vis*' was a somewhat ambiguous term, since it can designate the semantic property of a word's intrinsic "force" taken in isolation, for instance when the substantive verb is defined as having a verbal meaning or force (*vis verbi*) and a substantive meaning or force (*vis substantivi*); but it can also designate the function that the semantic property allows the word to have in a particular context. See Fredborg, "The Dependence of Petrus Helias," pp. 22–7 (focusing on William of Conches); "Speculative Grammar," pp. 188–9.

[26] Abaelard, *Logica* "*Ingredientibus*" [*super Periherm.*], ed. Geyer, pp. 339–40.

[27] See Rosier-Catach, "Priscien, Boèce," and Klaus Jacobi, "Peter Abelard's Investigations into the Meaning and Function of the Speech Sign 'Est'," in S. Knuutila and J. Hintikka (eds.) *The Logic of Being* (Dordrecht: Reidel, 1986) 145–80.

[28] Kneepkens, "Master Guido"; Fredborg, "Speculative Grammar," pp. 192–4; A. de Libera and I. Rosier, "La pensée linguistique médiévale," in Auroux, *Histoire des idées linguistiques,* II: 115–86.

These last three applications of the government relation form the core of the syntactic part of didactic grammars, which were composed during this period and commented on until the end of the Middle Ages. It became clear that government and determination were not always parallel, and could even run in opposite directions; the distinction was important, nevertheless, since it helped widen syntax, extending it beyond the bare morphological relations involving cases.[29]

The second major issue in syntax, closely connected to the first one, was transitivity. (This had been thoroughly analyzed from as far back as the discussion in Priscian minor.) The major options were a dyadic analysis of construction and transitivity (which considered, for instance, the noun–verb relation or the verb–oblique relation), or a sentential analysis of transitivity, which involved the idea of referential identity or difference. On this latter account, the construction 'I eat an apple' is transitive because of the difference of reference between 'I' and 'apple.' (An awkward consequence of this theory is that 'I see myself' cannot be analyzed as transitive, because of referential identity, in spite of the accusative case of the object.)

The third issue was the elaboration of the functional notion of subject and predicate, resting on a distinction between the grammatical *suppositum* and *appositum* and the logical *subiectum* and *praedicatum*. There was a clear awareness, in grammar as in logic, that the grammatical subject (*suppositum*) was not necessarily the logical subject, or subject of discourse (*suppositum locutioni*). The distinction between categories and functions was important since it provided the possibility of building a real syntax that was based on rules and was not mere morphology.[30]

This leads to the last issue: completeness and correctness. The important advance here came from the thought given to the relations between correctness (grammaticality), completeness, and well-formedness (semanticity) – the question being whether a sentence had to be well formed to be understandable or not. This question, important for figurative and non-standard discourse, becomes a major issue in the next century, as we will see below.[31]

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[29] The thirteenth-century notion of "dependency," subsuming determination and government, derives from this important move. See Michael Covington, *Syntactic Theory in the High Middle Ages: Modistic Models of Sentence Structure* (Cambridge: Cambridge University Press, 1984); Louis G. Kelly, *The Mirror of Grammar: Theology, Philosophy, and the Modistae* (Amsterdam: Benjamins, 2002) ch. 6.

[30] Kneepkens, "Suppositio"; L. M. de Rijk, "Each Man's Ass is not Everybody's Ass: On an Important Item in Thirteenth-Century Semantics," *Historiographia Linguistica* 7 (1980) 221–30.

[31] See also Ebbesen, "The Present King of France wears Hypothetical Shoes with Categorical Laces: Twelfth-Century Writers on Well-Formedness," *Medioevo* 7 (1981) 91–113.

THE THIRTEENTH CENTURY: THE RISE
OF SPECULATIVE GRAMMAR

Contrary to the way in which it is sometimes presented, speculative grammar did not emerge from nowhere, and it was not an absolutely new start in linguistic theory. Recent work has shown some continuity between syntactical tracts and the university grammars, and has also demonstrated that the didactic grammars of the turn of the twelfth and thirteenth century were not totally separated from the new orientations that grammar develops with the rise of the universities.

The thirteenth century began with the production of two influential "verse grammars" (grammars written in verse) – the *Grecismus* of Evrard of Béthune, and the *Doctrinale* of Alexander of Villa Dei – to which we can add the slightly later grammatical works written by John of Garland. Composed in the pre-university period, their primary purpose was didactic; nevertheless, the division between didactic and theoretical grammar cannot be seen as an absolute one, for at least two reasons. First, although John of Garland used to be seen as representative of the camp of the *auctores* (that is, the classical authors) against the philosophical or dialectical tendencies emerging in the Parisian grammatical schools (due to his strong criticism in the *Morale scholarium*), recent studies have shown that he also contributed to theoretical grammar. Indeed, he formed a link between the twelfth-century *Summa "Absoluta"* of Peter of Spain and Robert Kilwardby and Roger Bacon, who were, like him, English masters teaching in Paris in the faculty of arts in the 1240s, and who were influential representatives of the first period of speculative grammar (see below).[32] Second, the verse grammars always circulated with commentaries, which show similarities with the works produced in the arts faculties and which follow their developments. The *Glosa* on Evrard of Béthune's *Grecismus*, for instance, shows three layers: one connected to the teaching of John of Garland, another preserving a doctrine close to the mid-thirteenth-century teaching of Robert Kilwardby and Roger Bacon, and a third late thirteenth-century layer which adds material borrowed from the *modistae*. Furthermore, the various prologues that accompany the verse grammars are very close to the introductions to philosophy that began university courses in the faculty of arts.[33]

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[32] See Anne Grondeux and Elsa Marguin, "L'œuvre grammaticale de Jean de Garlande (*ca.* 1195–1272?), auteur, réviseur et glosateur: Un bilan," *Histoire Epistémologie Langage* 21 (1999) 133–63.

[33] Anne Grondeux, *Le Graecismus d'Evrard de Béthune à travers ses gloses: entre grammaire positive et grammaire spéculative du XIIIe au XIVe siècle* (Brepols: Turnhout, 2000).

In considering the thirteenth century, then, it is no longer possible to focus exclusively on the *modistae* from the 1270s, such as Boethius of Dacia and Martin of Dacia, characterizing all other works as "pre-modistic" in view of a yet imperfect development of some key features of modistic doctrine, such as the notion of *modus significandi*. Recent editions and studies – not only on Robert Kilwardby, whose teaching in Paris in the 1240s had a considerable influence, but also of anonymous texts of various genres, glosses on didactic verse grammars, commentaries, treatises, and *summae* of sophisms – present a new picture of the development of thirteenth-century university grammar.[34]

For this reason, the remainder of this section offers a "modulary" presentation, organized by questions rather than by author. (See the appendix to this chapter for a guide to the texts that have been preserved.)[35] This approach helps show the continuity throughout the century as well as the divergences between the *modistae* and other grammatical approaches. The main characteristic of the *modistae* is their attempt to build a scientific grammar grounded in philosophical claims in epistemology, psychology, and ontology, together with their search for coherence between those claims and their theory of language.[36] The *modistae* cannot simply be equated with speculative grammarians, who include not only the *modistae*, but also earlier and later university masters who share the same conception of grammar as a science. Although some conceptions of the pre-modist speculative grammarians were taken over and developed by the *modistae*, others were strongly rejected. In particular, the salient feature that distinguishes "intentionalists" from the *modistae* is their divergent views on congruity and completeness.

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[34] On the university literary genres for grammar, and the curriculum, see Ebbesen and Rosier-Catach, "Le *trivium* à la Faculté des arts." The students were to be lectured on Priscian (minor and major), on the pseudo-Priscian *De accentu*, and on the so-called *Barbarismus*, the third part of Donatus's *Ars maior* which was meant to supply Priscian with a theory of figurative speech. Moreover they had to attend to *disputationes*, both in schools and in "extraordinary" ceremonies; see I. Rosier-Catach, "Les sophismes grammaticaux au XIIIe siècle," *Medioevo* 17 (1991) 175–230.

[35] See I. Rosier-Catach, "Modisme, pré-modisme, proto-modisme, vers une définition modulaire," in S. Ebbesen and R. L. Friedman (eds.) *Medieval Analyses in Language and Cognition* (Copenhagen: Royal Academy, 1999) 45–81, for a fuller exposition of the same matter (with relevant texts). I do not consider here all the "modules" but the ones I consider most important.

[36] See Pinborg, *Die Entwicklung*; J. Pinborg, "Speculative Grammar," in N. Kretzmann *et al.* (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 254–69; J. Pinborg, *Medieval Semantics* (London: Variorum, 1984); G. L. Bursill-Hall, *Speculative Grammars of the Middle Ages: The Doctrine of partes orationis of the Modistae* (The Hague: Mouton, 1971); I. Rosier-Catach, "La grammaire dans le 'Guide de l'étudiant'," in C. Lafleur and J. Carrier (eds.) *L'enseignement de la philosophie au XIIIᵉ siècle: Autour du "Guide de l'étudiant" du ms. Ripoll 109* (Turnhout: Brepols, 1997) 255–79; Marmo, *Semiotica*.

Grammar as a science

University teaching constitutes a new paradigm because of the requirements that it imposed on the disciplines to meet the Aristotelian criteria for a science (see Chapter 26). These requirements were discussed in the "divisions of the sciences" that flourished in the early years of the university.[37] The relevant questions – including "Is grammar a science?," "Is grammar prior to logic?," and "Is grammar a practical or a speculative science?" – formed the prologues of the modistic treatises, but they were already present in earlier texts, such as the prologues of the verse grammars,[38] John of Garland's *Clavis compendii,* commentaries on Priscian such as Kilwardby's and Nicholas of Paris's, or again in the student's guide preserved in a Ripoll manuscript.[39]

The demonstration of the scientific nature of grammar called for a distinction between what is variable, contingent, and accidental in language (and, thus, not liable to scientific analysis) and what is necessary and universal, that is, "the same for all." Borrowing from Dominicus Gundisalvi's influential *De divisione philosophiae*, a distinction was introduced between "positive grammar" and "regular grammar" to separate what belongs to *imposition* (and thus to the various languages) and what can be described with general rules (ed. Baur, pp. 45–6).[40] The basic idea is to identify something universal in language, so that different languages differ merely through accidental vocal features. Jordanus, for instance, explains (*ca.* 1240) that "the way words are ordered according to the conformity of their accidents is the same in all languages" (*Notulae*, ed. Sirridge, p. 5); pseudo-Kilwardby holds that "the signs taken in their universal nature abstracted from particular signs" are the subject of grammar as a science (ed. Fredborg *et al.*, p. 8); and, according to Boethius of Dacia, there is one grammar in all languages (*Quaest. super Priscianum maiorem* q. 2). The late medieval commentary on the *Flores grammatice* explains that this "regular

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[37] Claude Lafleur, *Quatre introductions à la philosophie au XIIIe siècle* (Paris: Vrin, 1988), and Lafleur and Carrier, *L'enseignement de la philosophie au XIIIe siècle*, among other studies.

[38] Anne Grondeux, "Prologue, *prohemium*, glose du *prohemium* dans les manuscrits du Graecismus d'Evrard de Béthune," *Les prologues médiévaux* (Brepoly: Turnhout, 2000) 323–44, and *Le Graecismus*, ch. 2.

[39] Lafleur, *L'enseignement*; Rosier-Catach, "La grammaire dans le 'Guide' "; Mary Sirridge, "Robert Kilwardby as 'Scientific Grammarian'," *Histoire Epistémologie Langage* 10 (1990) 7–28; Alessio, "Il commento"; C. H. Kneepkens, "The Tradition of Universal and Speculative Grammar in the Late Middle Ages," in C. Codoñer Merino *et al.* (eds.) *El Brocense y la Humanidades en el siglo XVI* (Salamanca: Ediciones Universidad, 2003) pp. 35–6.

[40] Twelfth-century grammarians distinguished differently between the *species* of the art of grammar, which are the various languages, and the grammar that can be found in each of them; see K. M. Fredborg, "Universal Grammar According to some Twelfth c. Grammarians," *Historiographia Linguistica* 7 (1980) 69–83.

grammar" is what is called "speculative grammar," "because it speculates about the principles, rules and conclusions of the grammatical science," whereas "positive grammar, which teaches the significates of the terms . . . is not a science."[41] In short, words have modes of signifying that correspond to modes of being and that can be constructed according to general rules. This is a general feature of all languages and is thus the object of scientific grammar. Grammar is both universal and "speculative" – a characterization justified either in a derived sense, by the fact that it is "useful for the knowledge of speculative sciences" (Boethius of Dacia), or intrinsically, because its goal is to obtain knowledge about language (Radulphus Brito).

Modi significandi

The notion of "mode of signifying" has a twofold origin, in Priscian's idea that the different word-classes should be distinguished by their "property of signification" (reformulated by the *Glosulae* as "mode of signifying"), and in the Aristotelian idea (transmitted through Boethius) of "consignification." This second idea, which was extended to all the grammatical accidents later called "consignificata" (because they were signified along with, *cum*, the lexical significate, *significata*), also helped to distinguish between signification properly speaking (lexical meaning) and consignification (grammatical meaning). So, for instance, the noun 'year' signifies time whereas a verb *consignifies* time because it has the grammatical accident of tense.

A word such as 'human being' was taken to have three kinds of properties: (1) its lexical meaning (rational mortal animal), which was often called "special signification" (*significatio specialis*); (2) its grammatical meaning or "general signification" (*significatio generalis*), which could be either (a) an essential property, such as being a noun or (b) a specific property, such as being a common or substantive noun; and (3) accidental properties, such as being masculine, singular, or nominative. For a time, there was a difference of terminology between Parisian masters such as Nicholas of Paris or John le Page and the English masters teaching in Paris such as Robert Kilwardby, who used the notion of "mode of signifying" in a more systematic way.[42] After a period where both systems were used in a somewhat confused way (as in Gosvin of Marbais's *Tractatus de constructione*) the English system was adopted and developed by the *modistae*. The

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[41] Ed. in Rosier, "Modisme, pré-modisme," p. 51.
[42] See P. O. Lewry, "Robert Kilwardby's Writings on the Logica Vetus" (D.Phil. thesis: Oxford University, 1978) pp. 376–84; Kneepkens, "*Significatio generalis* and *significatio specialis*," in Ebbesen and Friedman, *Medieval Analyses in Language and Cognition*, 17–43; Grondeux and Rosier-Catach, in Robertus Anglicus, *Sophistria,* pp. 57–62.

whole of grammar was then unified through its principles, the *modi significandi*, which corresponded to all the grammatical features of a word, as distinct from its lexical meaning.

The speculative grammarians also took over an old idea, already found in the twelfth century, that words belonging to different word-classes can signify the same "thing" in different modes (for instance, 'white,' 'whiten,' 'whiteness'). Their favorite example was the notion of *pain*, which could be thought of, and thus signified, as a noun (*dolor*), a verb (*doleo*), a participle (*dolens*), an adverb (*dolenter*), or an interjection (*heu!*).[43] Analysis of interjections gave rise to a popular discussion, especially among English authors, of the distinction between the natural and the conventional way of expressing emotions – that is, between the "affective" and "conceptual" modes.[44] Likewise, a movement could be signified either by the name *motus*, and so as a substance, or by the verb *moveo*, and so as an action.[45] Authors writing in the 1270s, or thereabouts, devised a theory of imposition to explain this principle of independence between lexical and grammatical meaning. Matthew of Bologna talked about a double "imposition," and the *modistae* talked about a double "articulation" – an idea initially borrowed from Porphyry's commentary on the *Categories*, as transmitted by Boethius.[46] For Matthew, the *vox* is first imposed on its significate (usually, a thing in the world). With this lexical meaning in place, the significative vocal sound is then imposed on its general mode of signifying (turning the word into a part of speech of some kind, such as a noun, then into a species of this part of speech, such as an adjective or a substantive) and then on the accidental modes of signifying (giving the noun its accidents like case, gender, etc.). The *modistae* added the Aristotelian distinction between matter and form: through the first articulation, the vocal matter is associated with a form that is its signification (or *ratio significandi*), thus producing a *dictio*; then, through the second articulation, the *dictio* as matter is associated with various forms that are the modes of signifying (or *rationes consignificandi*), thus producing a *constructibile* – that is, a complete linguistic item.[47]

The *modistae* devised a complex system to explain the relationship between language, thought, and things, inspired by Avicenna's theory of common

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[43] See, inter alia, Michael of Marbais, *Summa*, ed. Kelly, p. 13.

[44] See I. Rosier-Catach, *La parole comme acte: sur la grammaire et la sémantique au XIIIe siècle* (Paris: Vrin, 1994) chs. 2 and 5.

[45] See Kilwardby, *Super Priscianum minorem*, in Pinborg, *Die Entwicklung*, p. 48.

[46] Boethius, *In Categorias* (ed. *Patr. Lat.* 64: 159b) distinguished the imposition of nouns on things and the imposition of nouns (such as "*nomen*" and "*verbum*") on those first nouns.

[47] Note that the *dictio* is a linguistic item having only lexical meaning, and as such is an abstraction, not a real item. Pinborg, "Speculative Grammar," p. 257, compares it to Lyon's *lexeme*, and Marmo (*Semiotica*, ch. 3) to Hjelmslev's *sign function*.

natures. If the significate of a word corresponds to the thing itself, the modes of signifying (*modi significandi*) correspond to the modes of being (*modi essendi*) through modes of understanding (*modi intelligendi*). The fact that the modes of signifying have a real foundation in modes of being was the guarantee needed for the discipline to be a science, since this ensured that its principles were not mere fictions. Unlike Matthew of Bologna, then, who claims that the first and the second imposition were voluntary and independent from each other – and, thus, that a thing could become the significate of a word belonging to any part of speech – some *modistae*, such as Boethius of Dacia, secure a real, non-subjective foundation for all the modes, stating that "imposition is not purely dependent on our will." Once a significate has been chosen in the first imposition, the real thing corresponding to it "regulates" the imposition of the modes in the second imposition; so, for instance, the fact that 'Socrates' refers to an individual implies the choice of the proper noun to signify it (*Modi significandi* [*Opera* I: 40]).[48]

In addition to the requirement that a scientific grammar be grounded in reality, there was another requirement, going in the opposite direction: to prove the independence of the sphere of grammar and language from reality. For this purpose, stress was put on the intermediate level of the *modi intelligendi*: the intellect was free to think and to signify a thing in a different way from how it really existed, although the mode of signifying had to have *some* corresponding mode of being. For instance, privative nouns ('nothing,' 'blindness'), to which no real thing corresponds, derive the mode of permanence that makes them substantive nouns from the property of some other things, such as substances, that really have this permanence. Likewise, the fact that the feminine gender of 'deity' has an origin in a real property of passivity does not imply that the thing signified as God *has* this property, but only that human beings *thought* about God as if God were passive (as moved by their prayers, for instance).[49] There is also a theological history to the notion of *modus significandi*, developing from the early thirteenth century, and partly from the same sources, where the central problem is God's ineffable nature in contrast to the imperfect human modes through which that nature can be thought and signified.[50]

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[48] See Roberto Lambertini, "*Sicut tabernarius vinum significat per circulum*: Directions in Contemporary Interpretations of the Modistae," in U. Eco and C. Marmo (eds.) *On the Medieval Theories of Signs* (Amsterdam: John Benjamins, 1989) pp. 118–19.

[49] See Marmo, *Semiotica*, ch. 4.

[50] See Gregory Rocca, "The Distinction between *res significata* and *modus significandi* in Aquinas' Theological Epistemology," *The Thomist* 55 (1990) 173–97; I. Rosier-Catach, "*Res significata* et *modus significandi:* Les implications d'une distinction médiévale," in S. Ebbesen (ed.) *Sprachtheorien in Spätantike und Mittelalter* (Tübingen: Narr, 1995) 135–68; Thierry-Dominique Humbrecht, *Théologie négative et noms divins chez saint Thomas d'Aquin* (Paris, Vrin, 2005).

Syntax and semantics

The partial or total independence of the significate from the grammatical features of a word effectively proved the independence of syntax from semantics. This independence was expressed through the "causal definition" (sometimes attributed to the *modistae*, but in fact commonly accepted by earlier authors such as Robert Kilwardby or Roger Bacon) of what a grammatical construction is: "Construction is the union of the *constructibilia* from their modes of signifying, caused to express a concept of the mind." This definition implies that the rules for construction and correctness are stated as rules of correspondence between modes: for instance, in a subject–predicate construction, the subject has such and such modes of signifying (being a noun, substantive, in the nominative case, etc.), corresponding to such and such modes of signifying of the verb (being a verb, personal, with an active mode, etc.). The correctness of the construction could then be automatically derived; if any one of these modes was missing, then the construction was automatically declared incorrect.

For the *modistae*, the independence of syntax from semantics was grounded in the Aristotelian potency–act distinction. The modes of signifying were the features of a word that gave it the *potency* to *act* or have a function (*officium*) in a given construction. This implied that a word should have all the required properties *before* entering in a construction, and that it should not get any new property by its occurring in a given construction. This conception had numerous consequences in both grammar and logic. One concerned the theory of the syncategorematic constituents, where discussion arose over whether such constituents have a significate distinct from their general mode of signifying and from their function (*officium*). Some authors, such as Gentilis da Cingulo, held that the significate and mode of signifying were identical; others, such as Martin of Dacia, held that the significate is identical with the accidental mode.[51] Michael of Marbais, in contrast, wanted to apply modistic principles in a strict way: every word should first have a significate and then some mode of signifying distinct from it, and its function was the "effect" of the modes of signifying.[52] A second important consequence was the "semantic irrelevance of the context." All the properties are attributed to a term at the moment of imposition, and they constitute the "essence" of the term. This means that they cannot be suppressed

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[51] See Marmo, *Semiotica*, pp. 225ff. for the discussion of this problem; see also Lambertini, "*Sicut tabernarius.*"

[52] Michael of Marbais, *Summa*, ed. Kelly, pp. 122–4: "and thus in the indeclinable parts the significate and the mode of signifying differ in an essential way" and "the way in which they differ . . . is a great difficulty and an object of disagreement among our doctors of grammar."

or modified, and none can be gained through a particular use.[53] Thus grammar has a strong coherence: all the grammatical features required by the rules of syntax have to be given to the word through imposition and thus are defined in the first part of grammar, called "etymology"; the rules of construction are, in turn, described in the part of grammar called "syntax" (*diasynthetica*), stated as rules of dependency, which require only the features defined in the "etymology" part of grammar; finally, the rules for congruity depend only on the correct application of the rules of syntax. In Chomskian terms, the system is one of "internal adequacy" – that is, an adequacy defined according to the linguistic rules – and not of "external adequacy," which would depend on the context and particular use. As far as logic is concerned, this conception was the opposite of the "contextual approach" characteristic of terminist logic (see Chapter 11), and this had important consequences for the analysis of reference and equivocity.[54]

Congruity and intention

The major consequence of the radical division between lexical and grammatical properties was, for the *modistae*, that semantics did not have to interfere with syntax (for instance, the phrase 'a categorical hat' is for them just as correct, grammatically speaking, as 'a black hat') and that grammaticality was the condition for semanticity. This was not, however, a universally accepted position; as a matter of fact, the *modistae* developed this strict position against some earlier or contemporary grammarians who held that a sentence could be declared correct even though it contained some deviations from the accepted rules.

The thirteenth century had inherited two contrasting doctrines on congruity. On the one hand, Peter Helias accepted the division between grammatical or vocal correctness (*secundum vocem*) and semantic correctness (*secundum sensum*): 'categorical hat' was acceptable on the first ground but not on the second.[55] On the other hand, the late twelfth-century grammarian Peter of Spain placed

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[53] This principle does not contradict the possibility of an *a posteriori* discovery of the modes of signifying: from the presence of a given word in a construction, one can deduce that it has this property. But the property did belong to it before it was used in this construction. See Pinborg, "Speculative Grammar," p. 261.

[54] See the important studies on the logic of the *modistae* – a topic that I cannot consider here – esp. Pinborg, *Medieval Semantics*; Ebbesen, "Can Equivocation Be Eliminated?," *Studia Mediewistyczne* 18 (1977) 103–24; Ebbesen, "The Dead Man is Alive," *Synthese* 40 (1979) 43–70; Marmo, *Semiotica,* ch. 5; Costantino Marmo, "A Pragmatic Approach to Language in Modism," in S. Ebbesen (ed.) *Sprachtheorien in Spätantike und Mittelalter* (Tübingen: Narr, 1995) 169–83; Costantino Marmo, "The Semantics of the Modistae," in Ebbesen and Friedman, *Medieval Analyses in Language and Cognition,* 83–104.

[55] Ebbesen, "The Present King."

semantic congruity first, putting much weight on Priscian's *dictum* that "all construction should be referred to the intellection of the utterance."[56] Although vocal congruity is taught first to children, it is not sufficient in itself: "mere vocal congruity does not make a construction (for example, 'a stone does not like its son'), if no intellection is grasped by the hearer from the vocal expression."[57] Peter of Spain's interpretation was very influential and was, in fact, copied by John of Garland.[58] Talking about elliptic expressions used in Scripture, John explains that the omission of the verb gives rise to an expression with an affective import; he further comments that "an imperfect construction has a stronger intention in the mind of the hearer than a perfect one." So, for instance, the interjection *Heu!* conveys a stronger intention than 'I suffer' (*ego doleo*). It was probably from John that this conception reached his fellow Englishmen Robert Kilwardby and Roger Bacon.[59] They claimed that the most correct sentence is not necessarily the one that is grammatically correct, but is rather the one that fits most adequately with the "intention of the speaker" (*intentio proferentis*).[60] This principle was meant to apply both to elliptic and incomplete constructions and to figurative ones: both types were incorrect "absolutely" (*simpliciter*) but could be accepted for certain purposes (*secundum quid*).[61]

  On this view, then, there seem to be two levels of grammatical congruity: a first, which depends on the application of the standard rules; and a second, where these rules are not respected, but where there is an "excusatory reason" not to respect them that justifies deviation from the rules.[62] This excusatory reason came in two parts, explaining both the reason why the deviation is possible and the reason why the deviation is necessary. For instance, in the figurative

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[56] *Institutiones grammaticae* XVII.187 (ed. Hertz, p. 201). On this dictum, see Mary Sirridge, "*Institutiones Grammaticae* XVII, 187: Three Reactions," in I. Rosier (ed.) *L'héritage des grammairiens latins de l'antiquité aux lumières* (Louvain: Peeters, 1988) 171–81.

[57] *Summa,* ed. Kneepkens, in *Het Iudicium* pp. 1–2; see Hunt, "Absoluta"; C. H. Kneepkens, "Roger Bacon on the Double *Intellectus*: A Note on the Development of the Theory of *Congruitas* and *Perfectio* in the First Half of the Thirteenth Century," in P. O. Lewry (ed.) *The Rise of British Logic* (Toronto: Pontifical Institute of Mediaeval Studies, 1985) 115–43; Kneepkens, "The *Absoluta*."

[58] See the gloss on John of Garland's *Ars lectoria ecclesie* (ed. Marguin-Hamon, p. 291); see also Garland's *Clavis Compendii*, verses 1770–81.

[59] The elliptic constructions taken from Scriptures and liturgy (such as *Ite missa est*) given in John's gloss on his own text are very close to the ones later analyzed in Roger Bacon's *Summa grammatica*, ed. Steele *et al.*, XV: 183–4; cf. John of Garland, *Ars lectoria ecclesie* (ed. Marguin-Hamon, p. 294).

[60] Robert Kilwardby, *Commentum super Priscianum minorem*, ed. Kneepkens, "Roger Bacon," p. 138, and Roger Bacon, *Summa grammatica*, ed. Steele, *et al.* XV: 15.

[61] The analysis is grounded on different oppositions, partly coinciding, qualifying congruity and completeness: *secundum vocem / secundum sensum*; *ad sensum / ad intellectum*; *secundum intellectum primum / secundum intellectum secundum*; see Rosier-Catach, "O magister," and *La parole comme acte*, ch. 1.

[62] Interestingly, this double reason was introduced in the second layer of the glosses on the *Grecismus*, as much as in the *Admirantes* gloss on the *Doctrinale*; see Grondeux, *Le Graecismus*.

Turba ruunt ("the crowd [singular] rush [plural]"), there is an incongruity of number. The first excusatory reason, of a linguistic nature, is the semantic plural meaning of the grammatically singular noun 'crowd'; the second reason, of an extralinguistic nature, is the necessity to use the deviant expression because of the speaker's intention to insist on the multitude composing the crowd. Because of these linguistic and extralinguistic reasons, the hearer can reconstruct the meaning that was intended by the speaker;[63] thus, the sentence is incongruous absolutely speaking (*simpliciter*) but not *secundum quid* – that is, according to the intended meaning.

   This is a very powerful doctrine, but it seems to run against the principle that semantics and extralinguistic considerations should not interfere with grammar as such. The most refined expositors of this doctrine, such as Robertus Anglicus, Gosvin of Marbais, Magister Johannes (who wrote the *summa* "*Sicut dicit Remigius*"), and the anonymous author of the sophism "O Magister," devised a very complete system, including both sentences that are "vocally correct" (called *ad sensum* because in these cases the senses could grasp the linguistic marks) and those that are "intellectually correct" (called *ad intellectum* because the sensible information is misleading and seemingly unacceptable and, thus, there is the need of an intellectual interpretation to reconstruct the structure and form of the sentence). Among those are sentences we would call performative, such as *bene!,* addressed at someone beating a child (!), which means "go on beating him." Because the beating is already in progress, existing as an "exercised act" (*actus exercitus*), there is no need for it to be signified by a verb as a "signified act" (*actus significatus*). In the same way, the expression *Aqua!* – uttered to ask someone to get water when a fire is discovered – is perfectly understandable as having the meaning of a complete sentence, and moreover conveys in a better way the panic of the utterer. In the analysis of these and other examples, there was a clear awareness that utterances used to perform speech acts did not have the same properties as non-performative ones.

Thirteenth-century grammar can no longer be simply divided between "modists" and "pre-modists." Early university grammarians of the thirteenth century – often of English origin such as Kilwardby – developed some points of doctrine that were further elaborated by the *modistae*. This is especially true for the doctrine of *modi significandi*, and for their application of Aristotelian

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[63] Mary Sirridge, "Robert Kilwardby: Figurative Constructions and the Limits of Grammar," in G. L. Bursill-Hall (ed.) *De ortu grammaticae* (Amsterdam: Benjamins, 1990) 321–37; Anne Grondeux, "*Turba ruunt* (Ov. 'Her.' I, 88?): Histoire d'un exemple grammatical," *Archivum Latinitatis Medii Aevi* 61 (2003) 175–222.

notions, taken from Aristotle's *Physics*, regarding the requirements on grammar to count as a science.[64] Other claims, however, regarding grammaticality, semanticity, and speech acts, were opposed by the first *modistae*.[65] This "intentionalist" approach to language is found in numerous sophismata collections, treatises, and commentaries on the versified grammars. Despite the initial opposition, later *modistae* seem to have taken a more conciliatory attitude toward this approach, and moreover some of the views held by the intentionalists are found in still later texts.

DEVELOPMENTS AFTER 1300

The philosophical principles defined by the *modistae* became the target of strong criticism from the beginning of the fourteenth century onwards. The claim that a word became significant and consignificant through some "superadded *ratio*" was rejected: "The vocal sound is only significative and consignificative because the speaker wants it and uses it to signify," says John Aurifaber, an art master at Erfurt in the 1330s.[66] Construction and congruency depend on use, and there is no need to find "causes" to explain them. The "destruction" of modism went along with the elaboration of a conceptualist grammar, based on the theory of mental language and the subordination of vocal language to it. Pseudo-Peter of Ailly, for instance, claims (*ca.* 1400) that government, congruity, and construction operate at the level of mental language, with mental concepts being composed to form mental sentences.[67] Such a mentalist approach is also found in the *Quaestiones* commentary on the second part of Alexander of Villa Dei's *Doctrinale*, written in the Netherlands in the last decades of the fourteenth century: "Even if there did not exist any vocal or written utterances, there would still be . . . some grammatical government in the mind, and thus a science of this mental government." An extreme consequence of the displacement of congruity at the mental level was the claim that at the written or oral level a sentence like *hominem currit* ('a human being runs,' with 'human being' in

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[64] The use made by the *modistae* of Aristotle's *Physics*, for a new analysis of cases, transitivity, and dependency relations, was well described by Louis Kelly in his introduction to pseudo-Albert the Great's *Quaestiones*, and in "La Physique d'Aristote et la phrase simple dans les traités de grammaire spéculative," in A. Joly and J. Stefanini (eds.) *La grammaire spéculative: des Modistes aux Idéologues* (Lille: Presses Universitaires, 1977) 105–24. This began, however, in the earlier generation (see Grondeux and Rosier-Catach, *The Sophistria*, pp. 62–7). It again seems to have been introduced by English authors, and is already in John of Garland – we should remember that the *libri naturales* could not be taught in Paris in the first half of the thirteenth century.

[65] See, for instance, Gentilis da Cingulo, as quoted in Rosier-Catach, *La parole comme acte*, p. 237 n. 4; compare Martin of Dacia, *Modi significandi*, pp. 112–15. See Grondeux, "*Turba ruunt*."

[66] *Determinatio de modis significandi*, ed. Pinborg, *Entwicklung* p. 218.

[67] *Destructiones modorum significandi*, ed. Kaczmarek, pp. 58–63.

the improper accusative case) was just as acceptable as *homo currit* (with 'human being' in the proper nominative). The congruence of a vocal sentence was deemed accidental, being subordinated to the intrinsic congruence of the mental sentence (*oratio mentalis*).[68] The grammar of mental language is universal, but its study belongs to the logician, whereas the grammars of particular languages are the task of the grammarian. The *modistae*'s claim that grammar deserved to be called a science, which was based on the idea that universality belonged to the realm of language just as to the realm of reason, was thus challenged in a way that left no recourse other than either to retreat to a more elementary position in the disciplines or to adopt the mentalist approach adopted by the logicians.

Modistic grammars nevertheless continued to be written at the end of the fourteenth and into the fifteenth century, both in Paris and also in Germany and central Europe. With the revival of realism, the *via moderna* was challenged by followers of the *via antiqua,* who held modistic positions.[69] Among them, the Albertists John of Nova Domus wrote the *Commentum aureum*[70] and (pseudo-)Johannes Versor composed an elementary commentary on *Donatus minor,*[71] while, interestingly, Erhard Knab von Zwiefalten explicitly rejected the modist positions adopted in his first *Donatus* commentary to then adopt the "*via modernorum.*"[72] The opposition between *moderni* and *antiqui*, grounded on different presuppositions about metaphysics and language – especially the relation between vocal and mental language – had important consequences

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[68] Texts quoted in C. H. Kneepkens, "Erfurt, Ampl. Q.70A: A Quaestiones-Commentary on the Second Part of Alexander de Villa Dei's *Doctrinale* by Marsilius of Inghen? An Explorative Note on a Specimen of Conceptualist Grammar," *Vivarium* 28 (1990) pp. 36–7, 53–4; "On the Notion of *Constructio* in Conceptualist Grammar: Quaestio XXXV of the *Doctrinale*-Commentary Preserved in Erfurt, Amplon. Q. 70A and attributed to a Master Marcilius," in H. A. G. Braakhuis and M. J. F. M. Hoenen (eds.) *Marsilius of Inghen* (Nijmegen: Ingenium, 1992) pp. 166–7; E. P. Bos, "An Anonymous Commentary on the Second Part of Alexander de Villa Dei's *Doctrinale* (circa 1400)," in M. C. Pacheco and J. F. Meirinhos (eds.) *Intellect et imagination dans la philosophie médiévale* (Turnhout: Brepols, 2006) 1743–56.

[69] See Pinborg, *Die Entwicklung*, p. 224; Alfonso Maierù, "La linguistica medievale: filosofia del linguaggio," in G. Lepschy (ed.) *Storia della linguistica* (Bologna: Mulino, 1990) p. 134. See also Kaczmarek's edition of the *Destructiones* and the works of Kneepkens cited in the previous note, along with C. H. Kneepkens, "Some Notes on the Revival of Modistic Linguistics in the Fifteenth Century: Ps.-Johannes Versor and William Zenders of Weert," in R. Friedman and S. Ebbesen (eds.) *John Buridan and Beyond 1300–1700* (Copenhagen: Royal Danish Academy of Sciences and Letters, 2004) 69–119.

[70] Zénon Kaluza, *Les querelles doctrinales à Paris: nominalistes et réalistes aux confins du XIVe et du XVe siècles* (Bergamo: Lubrina, 1988).

[71] Kneepkens, "The Tradition," pp. 49–52, and "Some Notes on the Revival."

[72] Ludger Kaczmarek, "Erhard Knab von Zwiefalten († 1480): *Improbatio modorum significandi*. Edition nach den Handschriften," in K. D. Dutz (ed.) *Individuation, Sympnoia panta, Harmonia, Emanation. Festgabe H. Schepers* (Münster: Nodus, 2000) 109–55; Kneepkens, "The Tradition," pp. 52–3.

for how grammar was understood among late scholastic authors (see Chapter 12).[73]

Throughout the Middle Ages, the claims made by authors of theoretical grammars depend not just on how they construe narrow linguistic issues, but also on how they understand a wide range of issues in metaphysics, epistemology, and psychology. A realist or a nominalist conception of universals, for instance, conditioned the definition of the noun and the analysis of predication, whereas one or another theory of relation influenced views of construction. Likewise, an approach focused on actual communication and understanding (and not only on the universality of the rules) allowed stress to be put either on context and use or on the stability of the linguistic code, and so either on the importance of the speaker's intention and will, or on the law of conventionality.

APPENDIX: THIRTEENTH-CENTURY UNIVERSITY GRAMMAR TEXTS

Texts that have been preserved from the thirteenth century fall into the following groups:

- *summae* of sophisms (Roger Bacon, *Summa Grammatica* [ed. Steele *et al.*, fasc. 15]; Robertus Anglicus, *Sophistria*);
- isolated long sophisms (Peter of Auvergne and Boethius of Dacia, in S. Ebbesen and I. Rosier-Catach, "Petrus de Alvernia + Boethius de Dacia: Syllogizantem ponendum est terminos," *Cahiers de l'Institut du Moyen Age Grec et Latin* 75 [2004] 161–218; Nicholas of Normandy, *Albus musicus est*; Walter of Ailly, "Un sophisme grammatical"). See also Christine Brousseau-Beuermann, "Le sophisme anonyme 'Amatus sum vel fui' du codex Parisinus BN lat. 16135," *Cahiers de l'Institut du Moyen Age Grec et Latin* 61 (1991) 147–83, and I. Rosier-Catach, "O Magister . . . : Grammaticalité et intelligibilité selon un sophisme du XIIIe siècle," *Cahiers de l'Institut du Moyen Age Grec et Latin* 56 (1988) 1–102;
- treatises (pseudo-Grosseteste and Gosvin of Marbais);
- commentaries on the *De accentu* (Kilwardby, *Notulae de accentibus*), on the *Barbarismus* (Kilwardby, *In Donati artem maiorem*), and on Priscian Maior and Minor.

The edited (or partly edited) non-modistic commentaries are pseudo-Kilwardby, *On Priscian Maior*; Jordanus, *Notulae super Priscianum Minorem* (for authorship of the latter, see René Gauthier, "Notes sur les débuts (1225–1240) du

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[73] On the problem of the subject of a sentence, for example, see Gerhard of Zutphen's *Glosa notabilis* on the *Doctrinale* and William Zenders of Weert's commentary on the *Doctrinale*, studied in Kneepkens, "The Tradition," pp. 53–6; see also C. H. Kneepkens, "The *Via antiqua* and the *Via moderna* in Grammar: The Late Medieval Discussions on the Subject of the Sentence," in A. Maierù and L. Valente (eds.) *Medieval Theories on Assertive and Non-Assertive Language* (Florence: Olschki, 2004) 219–44, and "Some Notes on the Revival."

premier 'averroïsme'," *Revue des sciences philosophiques et théologiques* 66 (1982) 367–73).

The edited modistic grammars are the following: Matthew of Bologna, *Quaest. super modos significandi*; Boethius of Dacia, *Modi significandi*; Martin of Dacia, *Modi significandi*; Simon of Dacia, *Quaest. super secundo minoris voluminis Prisciani*; Gentilis da Cingulo, *Quaest. super Priscianum Minorem*; John of Dacia, *Summa gramatica*; Michael of Marbais, *Summa de modis significandi*; Radulphus Brito, *Quaestiones super Priscianum minorem*; Thomas of Erfurt, *Grammatica speculativa*; Siger of Courtrai, *Summa modorum significandi*; pseudo-Albert, *Quaestiones alterti de modis significandi*.

See also the extracts of anonymous texts in various studies, especially in Jan Pinborg, *Die Entwicklung der Sprachtheorie im Mittelalter* (Münster: Aschendorff, 1967); Costantino Marmo, *La semiotica e linguaggio nella Scolastica: Parigi, Bologna, Erfurt 1270–1330. La semiotica dei Modisti* (Rome: Istituto Storico Italiano per il Medio Evo, 1994); Gian Carlo Alessio, "Il commento di Gentile da Cingoli a Martino di Dacia," in D. Buzzetti *et al.* (eds.) *L'insegnamento della logica a Bologna nel XIV secolo* (Bologna: Istituto per la Storia dell'Università, 1992) 4–71.

Numerous grammatical texts are still unedited; see the useful *Census of Medieval Latin Grammatical Manuscripts* (Stuttgart: Frommann-Holzboog, 1981) by G. Bursill-Hall and the list in Pinborg, *Die Entwicklung*, pp. 309–44. For the *modistae*, Marmo's *Semiotica* is still the fullest existing study; see also Kelly, *The Mirror of Grammar*. Useful bio-bibliographies are given in Harro Stammerjohann and Sylvain Auroux (eds.) *Lexicon grammaticorum* (Tübingen: Niemeyer, 1996), of which a second edition is forthcoming.

III

NATURAL PHILOSOPHY

NATURAL PHILOSOPHY IN EARLIER LATIN THOUGHT

NADJA GERMANN

WAS THERE A PHYSICS BEFORE THE *PHYSICS*?[1]

Was there anything like physics before the reception of the Aristotelian *libri naturales*? This question raises the problem of what kinds of discussions can be classified as "physical." Modern scholars have commonly held that the beginnings of a scientific interest in natural phenomena among medieval authors appear only in the early twelfth century. The main characteristic of this development is said to be a shift of interest and consequently of method: whereas medieval scholars had previously interpreted nature symbolically, in correspondence with the practices of biblical exegesis, they henceforth focused on the inherent structure of physical reality, which they intended to understand and explain as such, which is to say *secundum naturam* or *physicam*.[2]

While this approach to earlier medieval science has the advantage of having drawn scholarly interest toward the twelfth century, its weakness consists in its general neglect and global condemnation of the earlier stages of Latin thought.[3] For it suggests that an interest in natural phenomena as such can hardly be discovered prior to the twelfth century, which would imply the (more or less complete) absence of natural philosophy during this time. However, if one takes the trouble to investigate the available sources, the actual situation turns out to be much more complicated and interesting. First, the sources on which early medieval authors draw already attest to the presence of a notion of *physica*. Macrobius's *Saturnalia*, for instance, expressly mentions natural philosophy

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[1] Unless otherwise indicated, the terms 'natural philosophy' and 'physics' are used interchangeably throughout.

[2] The framework for this interpretation was first set out by Marie-Dominique Chenu, who in this connection coined the notion of "the discovery of nature" in the twelfth century. See "La découverte de la nature," in Chenu, *La théologie au douzième siècle* (Paris: Vrin, 1957) pp. 21–30. It is still along these lines that more recent studies conduct their own investigations; see, for example, Andreas Speer, *Die entdeckte Natur. Untersuchungen zu Begründungsversuchen einer scientia naturalis im 12. Jahrhundert* (Leiden: Brill, 1995).

[3] See Chenu, *La théologie*, who discusses developments during the twelfth century, but does not provide a closer analysis of the preceding period.

(*physica*), which for him "deals with the divine bodies either of the heaven or of the stars." Certainly, he allows that it has further sub-parts. These parts, however, particularly medicine, are disqualified as "dregs" (*faex*) since they consider "earthly and worldly bodies."[4] Given the importance of authors such as Macrobius – both for the concept of science underlying their writings and for the actual content of their views – one might suppose not only that their early medieval successors had a notion of physics but also that they identified it primarily with astronomy and only subsequently with other fields.

These considerations lead, second, to the early medieval sources themselves. Here it is important to note that indeed there is a wealth of astronomical material that must carefully be distinguished from the so-called "symbolical" sources.[5] Although early Latin astronomy still needs thorough treatment, some important work has already been done. Bruce Eastwood, for instance, in his studies on planetary astronomy between the ninth and eleventh centuries, was able to show that scholars in this period were deeply interested in penetrating astronomical phenomena on both a conceptual and a "geometrical" level. They not only tried to understand peculiarities such as the retrogradation of planets or the occurrence of eclipses – assisted by the available late ancient handbooks – but also developed their own graphic devices in order to reconstruct qualitatively the movements of the celestial bodies in relation to each other.[6] Furthermore, it is worth noting that the authors themselves attest to a consciousness of what they are doing: they point out, for example, that the object of their considerations is "nature" (*natura*) and that their inquiry is conducted "according to nature" (*secundum naturam*).[7]

Against this background, it appears to be appropriate to interpret these astronomical sources as instances of early Latin natural philosophy. This concentration on astronomy ceases only at the beginning of the twelfth century, when

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[4] Macrobius, *Saturnalia* 7.15, 14 (ed. Willis, p. 454). The identification of natural philosophy with astronomy in early medieval thought was already observed by Brian Lawn, *The Salernitan Questions. An Introduction to the History of Medieval and Renaissance Problem Literature* (Oxford: Clarendon Press, 1963) pp. 3–4.

[5] It is difficult to decide which sources Speer, for instance, has in mind when he contrasts the "awakening" physical interest (*Die entdeckte Natur*, p. 11) with a prevailing symbolism (p. 1), since he does not give a single example of the latter throughout his programmatic "Accessus" (pp. 1–17).

[6] See the handy collection of papers re-edited in Bruce S. Eastwood, *The Revival of Planetary Astronomy in Carolingian and Post-Carolingian Europe* (Aldershot: Ashgate, 2002).

[7] Although the term *physica* is already attested earlier (see, for example, Helperic of Auxerre, *Liber de computo* ii [*Patr. Lat.* 137, col. 23]: *physica signorum ratio*), it becomes increasingly popular during the second half of the eleventh and the first half of the twelfth century, when it starts replacing *natura* (see, for instance, Garland the Computist, who changes between the two notions, *De computo* ii, "*Prologus*" (Paris BN lat. 15118, f. 39r): "aliqua ante nos quod sciamus a nemine pertractata de scola phisice eruta calculamus"; ibid.: " Hic vero compotus dumtaxat naturalem explanare intendimus"; ibid. ii.14 (f. 46v): "His ad inuentionem deliquit luminum amborum necessario in difficultate phisica prelibatis").

Adelard of Bath's *Questions on Natural Science* appears on the scene. Hence-forth, an increasing interest in the hitherto rather neglected phenomena that Macrobius rejected as "earthly and worldly" becomes visible. This results in what can be characterized as a turn from celestial physics, focusing on the study of the heavens, to terrestrial physics, dedicated to a study of earthly phenomena. Furthermore, natural philosophy begins to be considered as a scientific branch of its own right – a development well attested by the discussions concerning the division of the sciences that spread throughout the twelfth century.[8] Although physics continues to include astronomical phenomena (despite its emancipation from astronomy proper, which is subsumed under the mathematical sciences) and hence can be addressed as cosmology, the main focus shifts toward sub-lunar phenomena, ranging from biology through medicine to "physics" in a sense that is closer to the modern notion.

These observations have important consequences for the study of natural philosophy in earlier medieval thought. If we understand 'earlier medieval' as the period between the Roman Empire and the thirteenth-century reception of the Aristotelian *libri naturales*, then our subject requires a treatment not just of twelfth-century thought, but also of the central aspects of earlier discussions. This chapter will accordingly concentrate on two issues: (1) the late ancient heritage of natural philosophy within the realm of astronomy; (2) the "sub-lunar turn": natural questions and the search for the elements and principles of the physical cosmos.

NATURAL PHILOSOPHY WITHIN THE REALM OF ASTRONOMY

It is important to note that the majority of the scientific material here in question belongs to two chief traditions. On the one hand it derives from late ancient compendia such as the aforementioned *Saturnalia* of Macrobius,[9] which cover a variety of scientific branches and from which medieval scribes extracted select passages (if not the entire text), as well as figures or tables. On the other hand – and this has often been neglected or misjudged – it draws from computistical literature, which is concerned with determining the correct Easter date. According to late ancient regulations, this date must be established in relation to the courses of both the moon and the sun, and so this literature puts particular weight on lunar and solar astronomy. (The most

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[8] See, for example, Hugh of St. Victor, *Didascalicon de studio legendi* 2 (ed. Buttimer, pp. 23–47); physics, to him, "considers by means of a thorough investigation the causes of things in their effects and the effects from their causes" (ibid., p. 34).

[9] Further examples are the *Commentaries on the Dream of Scipio* by the same author, Martianus Capella's *On the Marriage of Mercury and Philology*, and Pliny the Elder's *Natural History*.

important text in this connection is the Venerable Bede's *On the Structure of Time*.[10]) From approximately the ninth century onwards, these two traditions fused and developed into a wide-ranging kind of scientific literature, which spread considerably after the late tenth century.[11] Accordingly, in order to depict the most important developments within the field of natural philosophy before the "sub-lunar turn," we will focus upon the period stretching from the late tenth to the late eleventh century.

Early medieval scholars defend a geocentric worldview, which they owe to late ancient authors such as Macrobius and Pliny.[12] The most detailed body of knowledge addresses the movements of the sun and the moon – a peculiarity owing to the impact of the computistical literature mentioned above. In addition to this body of knowledge, the medievals inherited a bundle of questions already discussed in late ancient literature, concerning, for instance, the seemingly irregular movements of the planets and the obliquity of the paths of the planets with respect to the ecliptic. Such questions, and the geometrical analyses that were offered, clearly transcend the "classical" *computus* and must hence be addressed as an independent astronomical interest.[13]

Against this background, the question arises of the character of the medieval occupation with this type of natural phenomenon. Take, for example, a problem that appears to gain increasing interest during the eleventh century, namely, that of lunar and solar eclipses. Interestingly, whereas this phenomenon as such is well known already in late ancient literature, as are explanations for its occurrence, it is Hermann of Reichenau who first raised the question of when precisely eclipses happen. In his *Prognostics of Solar and Lunar Eclipses* (1049), Hermann develops a full-fledged theory for predicting lunar and solar eclipses on the basis of the cosmological knowledge available at his time.[14] Several peculiarities merit attention in this connection. First there is the kind of question asked: in contrast

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[10] This is a more apt rendering of *De temporum ratione* than the title of the published English translation, *The Reckoning of Time* (tr. Wallis), which is misleading. Another important source for later authors is Helperic of Auxerre's *Liber de computo* (*ca.* 900).

[11] See, e.g., Bede's *On the Structure of Time*, with approximately 250 extant manuscripts. For the so-called scientific manuscripts (their contents as well as their spread), see Faith Wallis, "The Church, the World and the Time. Prolegomena to a History of the Medieval 'Computus'," in M.-C. Deprez-Masson (ed.) *Normes et pouvoirs à la fin du moyen âge* (Montréal: Ceres, 1990) 15–29.

[12] That is, they conceive of the world as a globe with the earth surrounded by the spheres of the planets and fixed stars. It is well known that each planet (including, on medieval terminology, the sun and the moon) has its own track through the zodiac and that some of them seem to have irregular movements (stops, loops, retrogradation).

[13] Eastwood's work has drawn attention to this point, and has highlighted the geometrical character of these analyses of astronomical phenomena.

[14] Hermann of Reichenau, *Prognostica de defectu solis et lunae*, ed. N. Germann in *De temporum ratione. Quadrivium und Gotteserkenntnis am Beispiel Abbos von Fleury und Hermanns von Reichenau* (Leiden: Brill 2006) pp. 341–50; for a discussion see ibid., pp. 219–32.

to the late ancient and earlier medieval tradition, it concerns the *quantitative* elaboration of an existing description of a natural phenomenon.[15] This kind of interest throughout the period under discussion is further corroborated in other works by Hermann as well as by other authors. Thus, in his *On the Structure of the Sphere* (978), Abbo of Fleury tries to develop a method to calculate the position of the planets in relation to the zodiac,[16] while pseudo-Columbanus in his *On the Leap of the Moon* (probably late tenth century) detects that the duration of a synodical lunar month (that is, the period stretching from one new moon to the next) must differ from the commonly accepted 29.5 days, and he attempts to determine it more precisely.[17] Hermann himself addresses this same problem. He furthermore argues that the same inaccuracy obtains with regard to further natural phenomena, such as the sidereal lunar month (that is, the period stretching from one lunar transition through a certain zodiacal sign to the next), and he tries to find solutions.[18] In this, he finds a successor in Garland the Computist, who – just like Hermann in his *Prognostics* – develops a theory for predicting lunar and solar eclipses.[19]

A second peculiarity of the sources under consideration concerns the method and argumentation employed: unlike earlier figures, Hermann, in his theory of eclipses, proceeds by means of mathematics (arithmetic), taking certain positions of his cosmological background knowledge as starting points. For example, one essential precondition for an eclipse to take place is that the moon crosses the ecliptic at this very moment. Hence the question arises of how to determine this date. Hermann's argumentation runs as follows: since he presupposes the uniformity of the lunar course (which would mean that the moon crosses the ecliptic always at the same two points, that is, in the same zodiacal signs), the feature relevant for his question is the sidereal month. Accordingly, he maintains that the period between two passages of the ecliptic by the moon corresponds to half a sidereal month. In order now to determine the lunar transitions he

[15] Apparently, Eastwood does not notice this transition to a quantitative occupation with astronomical issues well before the twelfth century; see his "Invention and Reform in Latin Planetary Astronomy," in M. W. Herren *et al.* (eds.) *Latin Culture in the Eleventh Century. Proceedings of the Third International Conference on Medieval Latin Studies* (Turnhout: Brepols, 2002) I: 264–97, here pp. 290–1.

[16] Abbo of Fleury, *De ratione spere*, ed. R. B. Thomson in "Two Astronomical Tractates of Abbo of Fleury," in J. D. North and J. J. Roche (eds.) *The Light of Nature. Essays in the History and Philosophy of Science Presented to A.C. Crombie* (Dordrecht: Nijhoff, 1985) 113–33; for a discussion see David Juste, "Neither Observation nor Astronomical Tables. An Alternative Way of Computing the Planetary Longitudes in the Early Western Middle Ages," in C. Burnett *et al.* (eds.) *Studies in the History of the Exact Sciences in Honour of David Pingree* (Leiden: Brill, 2004) 181–222, here pp. 195–200.

[17] Pseudo-Columbanus, *De saltu lunae*, ed. in Columban, *Opera* (ed. Walker, pp. 212–15).

[18] Hermann of Reichenau, *Abbreviatio compoti cuiusdam idiotae*, ed. Germann in *De temporum ratione*, pp. 314–40; for a discussion see ibid., pp. 199–219.

[19] Garland the Computist, *De computo* xiii–xiv.

simply must multiply the period between two intersections. Similarly, to correlate mathematically these events with the relative position of the sun (which must be either in opposition to or conjunction with the moon), he applies the method of the smallest common multiple of the two relevant time spans.[20] The only further information required is an empirically attested eclipse. With these data in hand, Hermann is in a position to begin his calculations and identify dates of future eclipses.[21]

Another noteworthy feature of texts such as Hermann's consists in the indications they provide concerning the authors' own notion of the subject they are dealing with, as well as of their own approach. Accordingly, the astronomical phenomena have an underlying "natural structure" (*ratio naturalis*) that can be both explained (qualitatively) and translated into rules (*regulae*). Consequently, anybody who wishes to investigate the "causes and reasons" (*causae ac rationes*) of these rules must be acquainted with this natural structure beforehand. It is notable that the relationship between these rules and the corresponding natural structure is characterized in terms of "truth"; thus, the natural structure is "the truth" in relation to which the accuracy of the rules must be evaluated (particularly *Abbreviatio* xi; ed. Germann, p. 320). It is by virtue of this criterion (conformity with the truth – that is, the natural structure) that different approaches are distinguished. Hence, for example, in the realm of lunar and solar astronomy – which is to say, in the *computus* – both Hermann and Garland clearly distinguish between the "ancient" or "ecclesiastical" authority on the one hand, and "nature" and "reason" (*ratio*) on the other. Notably, both of them leave no doubt whatsoever regarding their own sympathy: they proceed *secundum naturam* – that is, they rework existing yet inaccurate rules and calculations and develop new ones (concerning future eclipses, for example).[22]

Furthermore, this approach "in accordance with nature" is closely linked with reference to observation. Thus, for example, it is because of a discrepancy

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[20] Interestingly, in order to accomplish his calculations, Hermann does not use the common Roman fractions, but rather invents fractional arithmetics. This is picked up by Garland.

[21] Hermann's theory, sadly, does not work, since the lunar course, contrary to his presupposition, is irregular, and hence the relevant feature in order to determine eclipses is not the sidereal but the draconic month (in combination with the so-called cycle of Saros).

[22] For a similar conception see also Abbo of Fleury; cf. Nadja Germann, "Zwischen *veritas naturae* und *fides historiae*. Zeit und Dauer bei Abbo von Fleury," in A. Speer (ed.) *Das Sein der Dauer* (*Miscellanea Mediaevalia* xxiv) (Berlin: De Gruyter, 2008) 171–95. For Garland the Computist see his distinction between a type of consideration *secundum naturam* or *physicam* and another "according to tradition" (*De computo* ii, "*Prologus*" [f. 39r]). For an analysis of Hermann's subtle polemic against mere reliance upon authorities, see Arno Borst, "Ein Forschungsbericht Hermanns des Lahmen," in *Deutsches Archiv* 40 (1984) 379–477, here pp. 418–21. This peculiarity must be emphasized in contrast to the global judgments (Chenu, Speer) mentioned at the beginning of this article. To them, this kind of rationality can be observed only since the twelfth century.

between the calculated position of the moon and the observable one that Hermann draws the conclusion that, in order to integrate the relevant figures into his reworkings of the *computus*, he must first re-determine them (ibid. xxvii, p. 327). The importance of this feature – that is, the observability of the difference between rule and nature – becomes obvious if we take into account the frequency with which this shortcoming is deplored, as well as the polemical force with which it is put forth. Accordingly, it is most surprising to find out that the observations Hermann and his contemporaries refer to are obviously *not* the result of their own empirical activities. As closer inspection reveals, they are based on the data transmitted by their sources. Thus, the above-cited discrepancy between the observable and the calculated position of the moon is taken from Bede. Similarly, Hermann's claim that everybody "except for the insane" agrees that "each lunar month has the same (*aequalis*) length" (ibid. xxv, p. 327) clearly attests that he did not rely upon his own observations; otherwise, he would have noticed the irregularities of the lunar course.[23] Consequently, the most important features of this approach to astronomical problems belong rather to the conceptual level: the discussed reasonings attest a high esteem toward natural phenomena and their underlying structure. Even more, this natural structure is considered to be the measure ("the truth") in relation to which transmitted rules and data must be evaluated.

With respect to the first stage of early medieval natural philosophy, therefore, we can summarize that there is an apparent interest in natural phenomena in the field of astronomy, an interest that is directed toward a more accurate (and this is to say a quantitative) determination of (existing) physical explanations. Moreover, scholars such as those evoked above attest a clear consciousness that the method they apply is a peculiar one: in analyzing natural phenomena to the best of their scientific knowledge, in identifying the figures relevant in order to develop a solution for the concerned problem, and in calculating the required dates, they proceed *secundum naturam* or *physicam*, in contrast to a procedure merely according with tradition or ecclesiastical practices. With this background we can now pass on to the second stage, terrestrial physics.

NATURAL QUESTIONS AND THE SEARCH FOR ELEMENTS AND PRINCIPLES

The turn to sub-lunar physics can best be connected with the early twelfth-century *Questions on Natural Science* of Adelard of Bath. These questions are

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[23] Certainly, there are exceptions to this rule: the eclipses Hermann refers to in order to check his theory are indeed instances of observation.

not only the first evidence for this shift, but they are distinguished by two characteristics that are also pertinent to the majority of related texts of this second stage of natural philosophy: first, by the tradition to which they inhere, the genre of question literature; second, by the integration of newly received sources, particularly from southern Italy. It is worth noting that there had already been collections of natural questions available north of the Alps since the times of Charlemagne.[24] However, it is during this period that they are taken up with sudden interest and supplemented by new material. Both the former and the newly arrived sources center around medical, botanical, biological, and meteorological problems. Whereas the old collections can be traced back, for instance, to the combined pseudo-Aristotelian and pseudo-Alexandrian *Problemata*,[25] the new sources give access to formerly unavailable texts such as Nemesius's *Premnon physicon* (later rendered as *De natura hominis*) and the *Pantegni*, a Latin reworking by Constantine the African of ʿAlī ibn al-ʿAbbās al-Majūsī's *Complete Book of the Medical Art*.

In comparison to the astronomical literature just described, the most significant difference concerns the nature of the questions put and solutions sought. In contrast to our aforementioned authors, twelfth-century scholars such as Adelard and William of Conches, to name but two, are interested in explanations for natural phenomena based on the inherent "reasons" (*causae*) for certain phenomena. This interest already becomes apparent from a glance at the table of contents in Adelard's *Questions*. The first chapter asks for the "reason why plants grow without a seed being sown beforehand," and the fourth raises the question of why they do not grow in the same way from water, air, or fire as they do from earth.[26] That this kind of question envisages a *qualitative* penetration of natural phenomena rather than a quantitative determination is furthermore corroborated by the answers given.

In order to reply to the first question (why "plants are born from the earth" [*Questions*, ed. Burnett *et al.*, p. 93]), for instance, Adelard explains that everything that exists consists of ultimate elements (earth, water, air, and fire), each of which possesses particular properties. Although he sticks to the traditional

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[24] This is lucidly described in Lawn, *Salernitan Questions*, pp. 1–15.

[25] The pseudo-Aristotelian and pseudo-Alexandrian problems were available in the Latin West in the so-called *Vetustissima translatio*; for this (and further sources) see, in addition to Lawn, *Salernitan Questions*, pp. 20–5; Charles Burnett's introduction to Adelard's *Conversations*, p. xxiii; and Charles Burnett, "Physics before the *Physics*. Early Translations from Arabic of Texts Concerning Nature in MSS British Library, Additional 22719 and Cotton Galba E IV," *Medioevo* 27 (2002) 53–109, here pp. 53–80. (See also Appendices B.1–2.)

[26] Adelard, *Questions on Natural Science* (ed. Burnett, p. 86); more than half of the questions ask for reasons, using the formulas "Qua ratione . . .", "Quare . . ." or "Ut quid . . .".

number of four elements and their common names,[27] and ascribes to them the traditional pair of qualities,[28] he emphasizes that what is usually called earth (but, according to Adelard, should better be referred to as "earthy matter") is a certain mixture of these elements in which the element earth is prevalent. "Thus, since in that earthy matter . . . these four causes are present, from them a certain composed thing necessarily arises, which is largely earthy, a little watery, less airy, and least of all fiery" (p. 93). What arises, in short, is a plant. Here, and in other cases, it is by reference to this microstructure of reality, which is to say to its inherent "causes" (*causae*), that Adelard tackles such problems. It may be worth noting that he is the first scholar in the early Middle Ages who – prior to the reception of Aristotle – defends this distinction between the elements proper and the mixts composed of them – a theory that became notorious throughout the later Middle Ages.

Adelard's "new" tendency to fall back on an element theory is also shared by other scholars of the same period, including first and foremost William of Conches. His *Dragmaticon* (*ca.* 1147–9), for example, develops a full-fledged theory of elements,[29] the most interesting feature of which is its corpuscular understanding of elements. In this connection, William maintains that his corporeal elements make up real bodies that have "a boundary and an end"; nonetheless he defends the infinite number of these smallest, indivisible particles within one body. He resolves the seeming incongruence of these positions by virtue of a distinction: "things are said to be infinite in number not because there is no limit to their number, but because it is virtually impossible for us to ascertain their actual number" (*Dragmaticon* I.6.4). Accordingly, 'infinity' does not mean an actual infinity but rather uncountability in practice. Similarly, William evades the problem of how elements can be at the same time corporeal and indivisible by holding that 'body,' when applied to elements, is a metaphorical term; the term applies to the elements inasmuch as they are the *principles* of bodies. Hence the elements, although in this sense corporeal, do not have three

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[27] In antiquity there are of course concurring models, sometimes postulating only one ultimate element (Thales, for example, ascribes to water this founding position), sometimes even five (Aristotle, for example, postulates ether as a fifth element).

[28] These qualities are also the traditional ones, already introduced in antiquity, namely dryness, moistness, coldness, and heat. Each element, according to this scheme, possesses one of the two contrary types of qualities; thus earth is dry and cold, water is cold and moist, air is moist and hot, and fire is hot and dry.

[29] Regarding the importance of this theory it is worth noting that William introduces the elements at the end of the first book (ch. 6) and dedicates the entire second book to their discussion. It is furthermore on this basis that he explains the coming into being of the universe (beginning with the heavens and continuing through meteorology to the earth and its inhabitants). A similar order underlies his earlier *Philosophia*.

dimensions (*Dragmaticon* I.6.12–13). These discussions and their like foreshadow not only the importance that theories of elemental compositions were to have during the later Middle Ages, but also some of the crucial problems at stake then, such as how to explain the composition of a continuum out of atoms, or how to account for the obvious difference of qualities between different kinds of things, given that they all consist of the same four kinds of elements with precisely four kinds of elementary qualities (see Chapter 18).

Another important difference between this new sub-lunar physics and earlier literature concerns the general subject matter under consideration. Both Adelard and William deal with reality in the broadest sense: their explanations cover questions ranging from the smallest parts of the cosmos (the elements) to its most universal composition (spheres of the heavens). Interestingly, those questions dealing with astronomical issues – such as the movements of the planets and stars or eclipses – merely summarize well-known positions from both the late ancient and the early medieval computistical literature. Thus William takes into account neither the eleventh century's tendency to deal quantitatively with astronomical phenomena, nor his predecessors' critique of the older tradition. This is particularly apparent if we regard William's report concerning the moon: according to him, it "moves through the entire Zodiac in twenty-seven days and eight hours," while "the real lunation lasts twenty-nine days and twelve hours – that is, half a natural day."[30] Obviously, he is unaware of the discussions and specifications of the past century.

The situation, however, is utterly different with respect to William's investigation of the cosmos's microstructure. Certainly, the questions he raises derive from more or less the same sources as those of Adelard (as well as from Adelard himself);[31] similarly, neither his nor Adelard's answers come completely out of the blue. Nonetheless, they reveal the originality and scientific autonomy of their authors. This becomes apparent if we return to their element theories: although their most important sources in this field, Nemesius and the *Pantegni*, fall back on elements understood as the smallest parts of any existing body, neither of those sources develops a corpuscular theory of the kind most elaborately put forth by William in his *Dragmaticon*.

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[30] *Dragmaticon* IV.14.1 (tr. Ronca *et al.*, pp. 83–4). This becomes even worse when he continues and claims that "the computists do not usually count anything less than one day" (p. 84), completely ignoring the developments by scholars such as pseudo-Columbanus, Hermann of Reichenau, and others.

[31] As for William's sources, see Lawn, *Salernitan Questions*, pp. 50–6; for the *Dragmaticon* see Ronca's "Introduction" to his edition (pp. xxiv–xxxi); in contrast to Adelard, William obviously draws on the *Pantegni*.

Accordingly, we may conclude that astronomy, insofar as it still belongs to natural philosophy, is degraded to a rather marginal existence, providing general cosmological background knowledge but not constituting a proper field of research. By contrast, theories concerning the structure and immanent causes of natural processes gain interest and are considerably elaborated. Moreover, it is in this connection that methodological considerations like those discussed earlier again come to the fore: just like Hermann or Garland, Adelard and William justify their method as "according to nature" or "to reason," and oppose it to blind reliance upon authority.[32]

A further distinctive feature of the period, related to this growing interest in naturalistic physical explanations, is an increasing concern for the first principles of the physical world. This can be characterized as the most fundamental sort of physical inquiry, grounding the search for the qualitative and causal explanations of reality discussed before. This focus, already present in William's work, is particularly notable in *On the Works of the Six Days* (*ca.* 1130–40) of Thierry of Chartres.[33] The first part of this treatise is explicitly dedicated to an explanation of Genesis "according to physics" (*secundum physicam*). To Thierry, the first principles are the four ultimate causes: the efficient cause, God; the formal cause, God's wisdom or Christ; the final cause, God's benignity or the Holy Spirit; and the material cause, the four elements. The "necessity" for such a cooperation of causes in generating the cosmos, he continues, results from the mutability and fallenness of worldly substances, which requires one originator and the imposition of a rational order (*Works* sec. 2, ed. Häring, *Commentaries*, pp. 555–6).

Although Thierry is not explicit on this point, from what follows it becomes clear that he conceives of creation as one single act effecting the coming into being of primordial matter; however, it must be part of this first and single act that the constituting parts of matter, namely the elements, were each endowed with a particular "nature" (*natura*). Notably, Thierry describes the further developments – the formation of the heavens, the coming into being of the stars and planets, and so forth – as a gradual process resulting from the natures of the aforementioned elements.[34] Hence it was by virtue of these "seminal causes"

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[32] This subject has found considerable scholarly interest; see particularly Speer, *Die entdeckte Natur*, pp. 36–43 (on Adelard) and 130–9 (on William).

[33] For a discussion see Speer, *Die entdeckte Natur*, pp. 222–88; regarding *On the Works of the Six Days* see particularly pp. 232–52. See also Peter Dronke, "Thierry of Chartres," in Dronke (ed.) *A History of Twelfth-Century Western Philosophy* (Cambridge: Cambridge University Press, 1988) 358–85, here pp. 374–82.

[34] This resembles the gradual coming into being and structuring of reality William depicts in both his *Philosophia* and *Dragmaticon*.

(*seminales causae*) that, once matter was there, the universe evolved into the state
we perceive today.[35]

It is obvious that this kind of reasoning somehow replies to element theories
such as those developed by Adelard and William, since it provides the grounding
principles of physical explanations presupposing the existence of "necessary"
effects inherent in the nature of things. The particular "nature" of each element
consists – as we can now conclude – precisely of its pair of qualities by means
of which it contributes to the composition of new things, or resolves and
transforms existing ones. Although today we might dismiss this as metaphysical
speculation, Thierry and his contemporaries obviously regard it as a substantial
part of natural philosophy itself. This interest in the metaphysical foundation of
the proposed physical theories is as original an interest as the one concerning the
microstructure of reality, which might be regarded as the effect of the seminal
causes.

A final comment concerns the empirical character of the second stage of
early Latin natural philosophy. It has frequently been claimed that the questions
Adelard or William raise result from everyday observations, and that the answers
they propose refer to an actual empirical approach. An often-quoted example
for this claim is Adelard's localization of the different mental faculties in the
brain. In order to corroborate his solution, he refers to injuries of certain parts
of a person's head that were accompanied by disabilities of particular mental
faculties. From this observation he concludes that these are the parts where
the respective faculties are localized. However, in this case, as in many other
instances, the related observation turns out to be extracted from the sources
he used (in this case, Nemesius). Despite both the superficial appearance of an
empirical orientation and the actual interest in the "mechanisms" of natural
processes, it must therefore be concluded that earlier medieval physics – even
during this second stage – is theoretical rather than empirical. It proceeds
by means of applying presupposed principles and tends to quote transmitted
examples instead of relying on personal observation. Yet this work still stands
out – and this is true for both stages discussed in this chapter – for its scientific
curiosity and originality of thought, as well as for the critical distance from
authority exhibited by all the authors discussed.

In many respects, therefore, earlier Latin thought foreshadows the kind of
natural philosophy that emerged with the recovery of Aristotle. Many of the
core questions would remain important, such as the element theory; simi-
larly, the qualitative approach of the second stage would continue in the

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[35] For the entire process see *Works* sec. 5–17 (ed. Häring, pp. 557–62); for the seminal causes, which
God inserted into the elements, see ibid. sec. 17 (p. 562).

thirteenth century and beyond. Nonetheless, central aspects underwent considerable change – first and foremost the chief object of investigation. In accordance with Aristotle's *Physics*, questions regarding change (*motus*) and, accordingly, the main principles of change – matter, form, and privation – come to the fore (see Chapters 19–20). Moreover, natural philosophy becomes integrated into the curriculum of the universities. As a result, not only does its conceptual place become fixed within the canon of the sciences, but so do its methods, procedures, and literary forms. This, however, must be the object of an independent investigation.

CREATION AND CAUSATION

TANELI KUKKONEN

Medieval thinkers regarded it as a foundational tenet of faith that the world had come to be through divine agency. The three monotheist Scriptures testify to this in clear terms, and each of the attendant theologies also came to regard it as important that God be recognized as creator. But how is God's creative act to be understood? Is it entirely *sui generis*, or does it correspond to some recognized category of change, either straightforwardly or by analogy? Are the facts of creation and its salient characteristics susceptible to rational analysis and demonstration, or do they fall outside those phenomena that it is the business of philosophy to investigate? And what might the connection, or lack thereof, tell us about either creation or causation?

After lengthy deliberations, and not without dissent, Christian orthodoxy settled on the world's having been created *ex nihilo* in a limited past.[1] At the same time, medieval philosophers also inherited the dominant philosophical view that the sensible world has always existed, a sempiternal beneficiary of an eternal agency. The compatibility of these two positions was considered problematic early on, and gave rise to an extensive debate over the eternity of the world. Because eternity was closely linked with self-sufficiency in the philosophical tradition, the idea that there might be other eternal principles besides God prompted questions about the necessity and contingency of the current world order and the different ways in which causal dependency might be construed. The majority of the developments occurred under *falsafa* (Arabic Aristotelianism), which will accordingly be given precedence in what follows.

PLATONIC BEGINNINGS

Despite the centrality of Aristotle for the tradition as a whole, early medieval cos-mological speculation is best viewed as a series of attempted mediations between

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[1] Gerhard May, *Schöpfung aus dem Nichts: Die Entstehung der Lehre von der Creatio ex nihilo* (Berlin: De Gruyter, 1978).

Scripture and the theoretical considerations introduced by Plato's *Timaeus.* The latter tells the "likely story" (*eikos mythos*) of the Demiurge, a divine craftsman of sorts, and his attempts to bring about a sensible world containing as much goodliness and order as it can. Because Plato was the foremost philosophical authority throughout the final phase of antiquity, and because Judaism and Christianity first encountered the Greek philosophical tradition through Philo and the *sophia* tradition, monotheist writers soon became privy to the numerous debates that sprang up among the Platonists regarding the principles the dialogue evokes.[2]

Agreement was reached relatively soon with regard to the eternal model to which the Demiurge is said to look when fashioning the sensible universe. This was equated with the contents of the divine mind.[3] But did the Demiurge's actions have an origin in time, as the Greek term *gegonen* ("it began to be") implied? And if so, were they preceded by a receptacle (*Timaeus* 49a) and disorderly motion (52d–53c) of some kind? When John Scottus Eriugena talks about the "appearance of the non-apparent, manifestation of the hidden, formation of the formless, measuring of the incommensurable" (*Periphyseon* III.4), what is that non-apparent, formless, incommensurable on which God operates?[4] A subsistent principle would imply something coeternal with God: the twelfth-century Latin interpreters of Plato, working from Calcidius's translation of the receptacle as *silva*, consequently expended considerable energy coming up with a satisfactory account of this primordial stuff.[5] Furthermore, the divine essence was customarily thought to be too exalted to be restricted to any particular form, just as it stands above any material limitations. If this is so, and if like produces like while nothing comes from nothing – as two venerable principles would have it – then how is it that a universe is formed out of two amorphous principles?[6]

The most radical response to these questions was staked out by David of Dinant in the early thirteenth century: since God created the world out of

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[2] See Matthias Baltes, *Die Weltentstehung des platonischen Timaios nach den Antiken interpreten* (Leiden: Brill, 1976–8).

[3] See Vivian Boland, *Ideas in God According to Saint Thomas Aquinas: Sources and Synthesis* (Leiden: Brill, 1996).

[4] Similarly Bernard Silvestris, *Cosmographia* XIII.1, who adds to the list the "setting of limits to the interminable." All these are standard Neoplatonic formulations.

[5] In early Islamic speculation a parallel discussion took place regarding the expressions *min lā shayyʾ* and *lā min shayyʾ*, "out of no thing" and "not out of a thing"; see Harry Wolfson, *The Philosophy of the Kalam* (Cambridge, MA: Harvard University Press, 1976) pp. 359–72.

[6] See, e.g., al-Kindī, *On First Philosophy* I.4 (ed. Abū Rīda, p. 161); Ibn Gabirol, *Fountain of Life* III.6, IV.6. Ibn Gabirol's own vacillations on the topic lead to two different accounts of creation in his works.

nothing (else), then in some sense he must *be* both its matter and its form.[7] David was promptly condemned for pantheism – as Saadiah Gaon had already pointed out, God's creating the world *ex se* could not very well be taken so literally (*Beliefs and Convictions* I.3)[8] – but a more acceptable formulation was hit upon by the tenth-century Jewish Neoplatonist Isaac Israeli, who contended that God's first creative act consisted precisely in the innovation of first matter and first form.[9] This would be followed by numerous authors as an answer to the question, "out of what did creation occur?"[10] Slowly but surely, the ages-old interpretation of a Platonic, demiurgic divinity shaping the world out of preexistent matter was edged out.[11] Moses Maimonides still put it forward as a putative account of creation, and a compromise position of sorts between the demands of reason and Scripture. Yet, in the same text (*Guide of the Perplexed* II.13), Plato's philosophical authority is surpassed by Aristotle's, who is portrayed as a staunch eternalist, while Moses, on the authority of Genesis 1, is presented as holding the strictly opposing viewpoint of a creation out of nothing in a limited time. It is these two positions that came to dominate the landscape, with the former being associated with philosophical doctrine (thanks to the dominance of Aristotle) and the latter with scriptural orthodoxy.

CAUSES AND OCCASIONS

When viewed in terms of Aristotle's *Physics* – the principal handbook of all mature medieval natural philosophy – speculation about matter and form gives us only half the story regarding a thing's coming-to-be. The late ancient philosophers had labeled these two "immanent" causes, because they are contained in their effects, and pointed to *Physics* II as providing a much needed supplement. Efficient and final causes may be considered "transcendent," since they are separate from their effects.[12] Through Avicenna, the distinction passes on to

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[7] This is in the lost *Quaternuli* (fragments ed. Kurdzialek, p. 71), and see Aquinas, *Summa theol.* 1a 3.8c. Albert the Great accuses the "early Peripatetics" Hermes Trismegistus and Asclepius of the same mistake (*De causis et proc. univ.* I.4.3).

[8] See also Aquinas, *Summa contra gentiles* I.17 and I.27.

[9] See *Chapter on the Elements* sec. 1, tr. Altmann and Stern, pp. 119–20, along with their discussion on pp. 151–64.

[10] See, e.g., Ibn Gabirol, *Fountain of Life* V.42; Robert Grosseteste, *Hexaëmeron* I.9.2.

[11] Among late medieval philosophers, Levi ben Gershom is practically unique in holding that such an account would be both philosophically demonstrable and faithful to scripture (*Wars of the Lord* VI.17).

[12] See Syrianus, *In Metaphys.* III (ed. Kroll, pp. 13–14); Proclus, *In Timaeum* (ed. Diehl, I: 239–40), *Elements of Theology*, prop 75.

medieval teaching all the way to William of Ockham and beyond:[13] it provides a basis for talking about the "how" of creation in Aristotelian terms, and is therefore of interest to us.

That God is an ultimate final cause, the end in perfection that everything strives to imitate, was a medieval commonplace. The question of God's efficient causality is trickier. Averroes in his *Metaphysics* commentary reproduces the central conflict with admirable clarity:

In this matter, the two parties ultimately opposed to each other are the champions of immanence (*ahl al-kumūn*) and, second, the people who uphold creation and invention (*ibdāʿ wa-ikhtirāʿ*). Those who maintain immanence claim that everything is in everything and that generation is merely the emergence of things from one another . . . Evidently, the efficient cause or agent (*al-fāʿil*) for such people is nothing more than a mover. As for those who maintain invention and creation, they claim that the agent creates the existent in its entirety and invents it: they deny that the agent's act is conditioned by the existence of matter on which to act, claiming instead that he is the inventor of the whole thing. This is the well-known view of the theologians both of our religion and of the Christians; accordingly, the Christian John the Grammarian [Philoponus] believes that there is no possibility except in the agent.

(*In Metaphys.* XII.18, ed. Bouyges, pp. 1497–8)

In short, the advocate of immanence denies that there is any generation outside the intermixture of the elements – an emergent materialism of sorts, with no space left for a special creation – whereas the creationist claims that all true generation is always out of nothing and that therefore the only true agent is God. One extreme denies agency to the Creator, the other to the creature, while between the two fall a number of intermediary positions forging a middle path. The question turns on the correct understanding of efficient causality, also dubbed 'agency.'

Wholly immanent accounts of generation are scarce during the medieval period: Averroes's own view arguably comes closest, as he tacitly acknowledges (ibid., p. 1499). This is because Averroes is virtually alone in believing that a Prime Mover such as Aristotle's is in fact sufficient to account for creation. Still, when Averroes says that the sixth-century commentator John Philoponus spearheaded the opposing movement of viewing God as sole creator both of matter and of form, this is both correct and informative. To say that "there is no possibility except in the agent" in this context is to claim that the world sets no restrictions whatsoever on God's creative act, whether from the point of view

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[13] See Robert Wisnovsky, "Towards a History of Avicenna's Distinction between Immanent and Transcendent Causes," in D. Reisman and A. al-Rahīm (eds.) *Before and After Avicenna* (Leiden: Brill, 2003) 49–68.

of its matter or its eventual form.[14] After all, as Philoponus had put it, if God "produces in a way similar to nature, then he does not differ from nature." And if he does not differ from nature, how then is he superior to it?[15] The theologians consequently interpreted God's infinite power, itself an Aristotelian concept (*Phys.* VIII.10), as God's capacity to bring about any effect directly without the cooperation of secondary causes. The only thing delimiting divine omnipotence is logical compossibility. Such was, for instance, John Duns Scotus's view, and it became a commonplace both in mainstream Muslim theology and among the Latin scholastics starting in the late thirteenth century.[16]

Of course, insisting on the primacy of divine causality need not entail a denial of secondary causes. The scholastics habitually subscribed to a distinction between *potentia Dei absoluta* and *potentia Dei ordinata*, where the latter allowed for the operation of nature, too.[17] And al-Ghazālī, to name but one prominent Muslim theologian, appears not to care whether causes (*asbāb*) and intermediaries (*wasāʾiṭ*) are cited, just so long as God's power to effect (what are commonly known as) miracles is respected.[18] That such a stance might nonetheless lead to causal skepticism is spelled out for the Islamic world by al-Ghazālī in his celebrated criticism of the purported necessity of the causal nexus (*Incoherence* 17),[19] and for the Latin world by Robert Holcot. Holcot starts from Ockham's observation that the notion of causality, which by definition is a relation, cannot be grasped as an intuitive cognition.[20] Then again, Holcot reasons, if it is inferred on the basis of regular observation, this can never reach the certainty of demonstration either, but at best be a probable induction. Furthermore, if divine omnipotence is a valid alternative explanation to anything occurring in the natural world, then anything our mind presents as having occurred through natural causes could just as well have been effected directly by divine power. There simply is no way of telling between the two. Consequently causality is something "said" of things – a nominal definition, not a real one.[21]

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[14] See al-Juwaynī, *Al-Shāmil fī uṣūl al-dīn*, ed. Klopfer, p. 132.

[15] Quoted by Simplicius, *In Phys.* VIII, ed. Diels, p. 1150; cf. pp. 1141 and 1142.

[16] See, e.g., Scotus, *Quodlibet* VII.4 and VII.9; *Ordinatio* I.42 (ed. Vatican, VI: 343–4). For the Islamic tradition, see my "Possible Worlds in the *Tahāfut al-falāsifa:* Al-Ghazālī on Creation and Contingency," *Journal of the History of Philosophy* 38 (2000) 479–502.

[17] See Lawrence Moonan, *Divine Power: The Medieval Power Distinction up to its Adoption by Albert, Bonaventure, and Aquinas* (Oxford: Clarendon Press, 1994).

[18] In favor of attributing belief in secondary causality to al-Ghazālī see Richard Frank, *Creation and the Cosmic System: al-Ghazālī and Avicenna* (Heidelberg: Carl Winter Universitätsverlag, 1992).

[19] This criticism was anticipated a century earlier in al-Bāqillānī, *Introduction* (ed. McCarthy, p. 43).

[20] Ockham, *Ordinatio* I.3 (*Opera theol.* I: 418) and I.6 (I: 497).

[21] Holcot, *Determinationes* 3 (ed. 1518); see Reijo Työrinoja, "God, Causality, and Nature. Some Problems of Causality in Medieval Theology," in E. Martikainen (ed.) *Infinity, Causality and Determinism: Cosmological Enterprises and their Preconditions* (Frankfurt: Peter Lang, 2002) pp. 53–5.

In the *Incoherence of the Philosophers*, al-Ghazālī presents for the reader's consideration occasionalism as one alternative way of construing causal relations. Within speculative Islamic theology (*kalām*), this is the thesis that God creates the world anew from one moment to the next by adjoining accidents to substances. On this radical view, creatures do not exercise causality at all: all secondary causation vanishes as illusory, as does the whole Aristotelian metaphysics of perduring, powerful particulars.[22] To say that God is the sole true agent, as the occasionalists do, is to say that *everything* is in his hand. If God is the causator of causes (*musabbib al-asbāb*), the one who grants causative power to everything else, then he is the creator (*khāliq*) not only of the pen and the hand but also of human power and will (*Revivification* [ed. 2002, I: 35]). Certitude in religion then has to do precisely with acknowledging God's universal efficacy.[23] Yet the price is undeniably high. If God is responsible for absolutely everything that happens, whether directly or indirectly, then what sense is there anymore, for example, in attributing actions to human beings?[24] It is instructive to note that when in the fourteenth century Nicholas of Autrecourt tried to introduce an occasionalist system within the framework of Latin scholasticism, John Buridan accused him of destroying not only the natural but also the moral sciences (*Quaest. Metaphys.* II.I). The Muslim theologians, for their part, tied themselves in knots trying to come up with a satisfactory account of the human acquisition (*iktisāb*) of the actions ascribed to them (see Chapter 29). Averroes, Maimonides, and Thomas Aquinas all denounced occasionalism for making a mockery not only of science and wisdom, but of God's benevolence as well.[25]

FROM ETERNITY, OR *EX NIHILO*?

According to Averroes, when positing a God whose action consists in constantly recreating the world *ex nihilo*, the Muslim theologians "did not postulate an Agent resembling empirical agents. In the empirical world, after all, an agent's act consists in changing an existent's attribute to another, not in converting privation

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[22] See Richard Frank, "The Ashʿarite Ontology I: Primary Entities," *Arabic Sciences and Philosophy* 9 (1999) 165–231; Dominik Perler and Ulrich Rudolph, *Occasionalismus: Theorien der Kausalität im arabisch-islamischen und im Europäischen Denken* (Göttingen: Vandenhoeck and Ruprecht, 2000).

[23] See *Revivification* I: 74; *Beautiful Names*, ed. Shehadi, pp. 98–105.

[24] See Thérèse-Anne Druart, "Al-Ghazali's Conception of the Agent in the *Tahafut* and the *Iqtisad*: Are People Really Agents?," in J. E. Montgomery (ed.) *Arabic Theology, Arabic Philosophy: From the Many to the One* (Leuven: Peeters, 2006) 425–40.

[25] See Averroes, *Incoherence of the Incoherence* 17 (ed. Bouyges, pp. 519–24); Averroes, *In Metaphys.* IX.7; Maimonides, *Guide* I.73; Aquinas, *Summa contra gentiles* III.69. Averroes's critique is analyzed by Barry Kogan, *Averroes and the Metaphysics of Causation* (Albany: State University of New York Press, 1985) pp. 86–164.

(*ʿadam*) into existence (*wujūd*)." On the latter, Aristotelian view (which Averroes himself advocates), an agent's actions may indeed result in a thing's becoming different from what it was "in substance, name, and definition"; yet the ancient principle is preserved according to which "the existent in the absolute sense is never generated or corrupted."[26] This is to say that nothing ever comes to be from absolutely nothing. Aristotelian doctrine in its unadulterated form thus allows for no original act of creation – no coming-to-be of the cosmic system as a whole or its regulative component, the eternally rotating heavens: the concept of agency or efficient causality is so intimately tied in with the notion of a proximate substrate from which every generated substance proceeds, and an existent world order that acts as its backdrop, that an absolute beginning becomes inconceivable.[27]

This is, perhaps, why so many thinkers who were wedded to scriptural notions of creation found Aristotelian eternalism utterly unpalatable. As Averroes puts the matter, "it was difficult for Muslims to call both God and world eternal, since they had no other understanding of the eternal than that which has no cause."[28] To those who had taken to heart the lesson of the *Timaeus*'s being–becoming distinction, only the generated unequivocally possesses an efficient cause (*ʿilla fāʿila*) for its coming-to-be; the eternal, by contrast, can – by definition – have no generative cause to its being (*ʿilla mukawwina*).[29] By insisting on the difference between generation, which is from privation, and creation, which is out of nothing, the creationists might further distinguish between empirical agents and divine agency.[30]

This answer would satisfy the creationists' need to place creation in a category separate from ordinary causality – compare Aquinas's dictum according to which creation is neither a motion nor a change (*Summa contra gentiles* II.17) – but it would hardly suffice to paper over the many eternalist presuppositions at work in Aristotle's philosophy. Proofs for and against the eternity of the world accordingly proliferate in the medieval period, often as a preliminary to arguments for the existence of God (see Chapter 53). Proofs of the world's eternity would either start from certain conceptual necessities related to motion, time, the *ex nihilo nihil* principle, and the aethereal (and hence ingenerable and incorruptible) constitution of the heavens (all traceable back to Aristotle), or they would argue for a necessary equivalence relation between the world's eternal

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[26] Averroes, *Incoherence* 3 (ed. Bouyges, pp. 221–2).
[27] See Aristotle, *Phys.* VIII; *De caelo* I.10–12; *De gen. et cor.* II.9–10; *Metaphys.* XII.3, 1069b35–70a2.
[28] *Incoherence* 2 (ed. Bouyges, p. 124); cf. Saadiah, *Beliefs and Convictions* I.2 (ed. Landauer, p. 39).
[29] This formulation is from Galen's paraphrase, the *Compendium Timaei* (ed. Kraus and Walzer, p. 4).
[30] See Isaac Israeli's influential *Book of Definitions* (ed. Muckle) secs. 42–4, drawing on al-Kindī, *On the True, First, and Perfect Agent* (ed. Abū Rīda) I: 182–4.

and benevolent cause and God's eternal effect. Proofs of creation, conversely, argue that the world's very structure is such that it must have an origin – witness Philoponus's famous proofs for the impossibility of an infinite past – or else claim that God's very uniqueness precludes another eternal entity along-side him.[31] All these arguments received refutations, and most of these in turn received rejoinders, so that the discussions become very complex to trace.[32]

Amidst these debates, proofs, and counter-proofs, the notion crops up that the issue might not be decidable by rational means at all (see Chapter 51). Drawing on Aristotle's *Topics* I.11, this first becomes a popular theme in twelfth-century Andalusian thought: it is found in Judah Halevi's *Khazari* (I.62–7) and given decisive formulation in Maimonides's *Guide of the Perplexed* (I.71, II.18), whence it finds its way to the Latin world and eventually Aquinas (*Summa theol.* 1a 46.1– 2). Some would utilize it to emphasize the importance of revelation in disclosing the facts of creation – already Saadiah had made the point that an original act of creation by all rights should be inconceivable to us (*Beliefs and Convictions*, ed. Landauer, pp. 30–1) – while for others it would justify a division of labor between the arts and the divinity faculties. To some, the idea that God *could* create an eternal world even though in fact he did not was a welcome reminder of God's absolute omnipotence, while at the other extreme a committed Aristotelian like Boethius of Dacia maintained that the world is demonstrably eternal based on principles derived from created reality, yet actually originated according to a power greater than nature.[33] For Ibn Ṭufayl, the central point is that whichever view one takes on the origin of the world, its need for a creator remains (*Ḥayy ibn Yaqẓān*, ed. Gauthier, pp. 80–2). But how, if the world had existed forever?

ETERNAL CREATION

Philosophical models of eternal creation had, in fact, been devised early on. The Arabs knew, for instance, of a treatise by Ammonius of Alexandria purporting to demonstrate how Aristotle's Prime Mover is not only a source of the heavens'

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[31] For Philoponus's infinity arguments see Richard Sorabji, *Time, Creation, and the Continuum* (London: Duckworth, 1983) pp. 210–31; for their Arabic history, see Herbert Davidson, *Proofs for Eternity, Creation, and the Existence of God in Medieval Islamic and Jewish Philosophy* (Oxford: Oxford University Press, 1987) pp. 93–134; the scholastics received these through Averroes and Maimonides, but also had an apparently independent source in Bonaventure, *Sent.* II.1.1.2.

[32] Davidson, *Proofs for Eternity*, comprehensively tracks the Arabic story; for the scholastics, begin with Richard Dales, *Medieval Discussions of the Eternity of the World* (Leiden: Brill, 1990) and Richard Dales and Omar Argerami, *Medieval Latin Texts on the Eternity of the World* (Leiden: Brill, 1991).

[33] The fourteenth-century Averroist John of Jandun likewise distinguishes between creation and temporal making, claiming that to God many such things are possible that appear impossible to the human observer: see Dales and Argerami, *Texts*, pp. 182–93.

eternal motion, but also of the world's eternal existence. This in time came to influence the scholastics,[34] as did the so-called *Liber de causis*, proposition 4 of which states that the First Cause firstly gives rise to being itself. The Arabic Plotinus repeatedly refers to the One as Creator,[35] whereas al-Fārābī is representative of the Arabic Aristotelians when he avers that "The First Existent is the First Cause of the existence of all the other existents" (*On the Perfect State* I.1.1, ed. Walzer, p. 56), and this forever. Still, what might giving existence or granting being entail? Because these are described simply as an emanation (*fayḍ*), there is no apparent way to relate any of these descriptions to the recognized Aristotelian causal explanations.[36]

   This all changes with Avicenna, whose peculiar genius was to appropriate elements from across the Hellenic tradition and beyond in a highly creative synthesis. Avicenna places emanation squarely in the column of efficient causality, when the latter is suitably interpreted:

The metaphysical philosophers do not mean by "agent" only the principle of motion, as the naturalists do, but the principle and giver of existence (*mabdaʾ al-wujūd wa-mufīdu-hu*), as in the case of the Creator's relation to the world (*al-bārī li-l-ʿālam*). As for the natural efficient cause, it does not bestow any existence other than motion in one of the forms of motion. Thus, in the natural sciences, that which bestows existence is a principle of motion.

(*Metaphysics* [*al-Ilāhiyyāt*] VI.1, ed. Marmura, p. 195)

This new understanding of efficient causality provides a suitably technical account of emanation; it connects it with Avicenna's groundbreaking essence–existence distinction and fleshes out his famed metaphysical argument for God's existence (as Aquinas clearly sees in *De ente* 5); it also makes both of these appear to be logical outgrowths of Aristotle's natural philosophy.[37] As in the late ancient system, matter, form, and worldly motion become contributing causes (*synaitiai*) which, however, take a back seat to the more primal modes of truly efficient (existential and productive) as well as final (essential and paradigmatic) causation.[38] Through the preexistence of all essences in the divine wisdom, God may act not only as the efficient but also as the formal and the final cause of the

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[34] See Richard Sorabji, *Matter, Space, and Motion* (London: Duckworth, 1988) pp. 249–85.
[35] See Peter Adamson, *The Arabic Plotinus* (London: Duckworth, 2002) pp. 137–49.
[36] Al-Fārābī's reticence may stem from an awareness that emanation does not belong in Aristotelianism: see Thérèse-Anne Druart, "Al-Farabi, Emanation, and Metaphysics," in P. Morewedge (ed.) *Neoplatonism and Islamic Thought* (Albany: State University of New York Press, 1992) 127–48.
[37] *Physics* I.10, ed. Madkur Zāyid, pp. 48–9. Michael Marmura, "The Metaphysics of Efficient Causality in Avicenna (Ibn Sina)," in M. Marmura (ed.) *Islamic Theology and Philosophy* (Albany: State University of New York Press, 1984) 172–87.
[38] Avicenna, *Metaphys.* VI.2 (ed. Marmura, p. 202), with Proclus, *In Timaeum*, ed. Diehl, I: 1–2 and I: 263.

world's assuming the shape that it does, seeing as such essences are but paths by which limited beings draw closer to the divine goodness. That this represents a mingling of Platonic motifs with Aristotelian causal language is attested to not only by various post-Avicennian thinkers in the wake of al-Ghazālī and Aquinas, but also by William of Conches, who quite independently of the Arabic tradition (and in fact relying on the *Timaeus*) identifies God as the efficient cause of all things as their creator and the formal cause of all things through the divine wisdom.[39]

What is more, by insisting on the simultaneity of cause and effect, Avicenna alleviates the perceived problem of emanation being a mediated form of influence.[40] Because the entire order of existence is continuously dependent on the First Cause, God as the primary agent may properly be thought to sustain the world through all time. The Sufis were fond of citing the Quran on this point, saying "everything perishes except His face" (28:88). By this they meant that if God ever turned his back on creation, everything would perish in an instant, since nothing has existence of itself.[41] Thus God's creative activity, irrespective of specific essences and circumstances, touches everything equally and directly. Avicenna furthermore distinguishes between temporal and causal priority, and maintains that only the latter is essential (since temporally successive causes are only instrumental). This has the additional benefit of securing the contingency even of eternal entities such as the heavens and the separate intelligences.[42] A similar view was transmitted to the Latin scholastics by Augustine, who had used the metaphor of the footprint in the dust to illustrate a unidirectional yet atemporal dependency relation (*De civitate Dei* X.31). Even though Augustine himself did not subscribe to this Neoplatonic picture, his distinction was seized upon by some Latin thinkers, who saw it as a useful tool in securing a place for eternal principles besides God. Eriugena, for instance, argued that the primordial causes are eternal, because they are all at once (*simul*) in God's Word, but that they are nevertheless not coeternal, because

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[39] Al-Ghazālī, *Beautiful Names*, ed. Shehadi, pp. 79–82, 92–93; William of Conches, *Glosae super Platonem* XCI.

[40] See Avicenna, *Annotations* (ed. Badawī, p. 157); Mullā Ṣadrā, *Four Intellectual Journeys*, III.3.6 (ed. Lutfi *et al.*, VI: 216); see also Marmura, "Avicenna on Causal Priority," in P. Morewedge (ed.) *Islamic Philosophy and Mysticism* (Delmar: Caravan Books, 1981) 65–83.

[41] A similar view was transmitted to the Latin tradition by Cassiodorus in his *Secular Learning on the Soul* I.4, where he says that "no created substance can be a creator since it requires God to exist, and cannot give to another the being (*esse*) that it has only as a possession."

[42] See Robert Wisnovsky, "One Aspect of the Avicennian Turn in Sunnī Theology," *Arabic Sciences and Philosophy* 14 (2004) 65–100. Ibn Kammūna ventured as far as to argue for the pre-eternity of human souls: even these will be causally secondary to the First Existent, and subsequently contingent. See Reva Pourjavady and Sabine Schmidtke, *A Jewish Philosopher of Baghdad* (Leiden: Brill, 2006) p. 24.

"the [divine] art precedes what subsists in it, through it, and by it" (*Periphyseon*
III.5). Bernard of Chartres upheld a similar distinction between eternity and
coeternity.[43] In all this, the Latin world found an admirable affinity between
Avicenna's teachings and what they had previously come to understand of the
Greek heritage.

 Other aspects of Avicenna's teaching proved harder to assimilate. Consider,
for instance, Avicenna's thesis that God does not act for any external end. On the
face of it, this seems equally acceptable to the theologian and the Aristotelian-
trained philosopher,[44] yet the principle could be taken in two ways: either
to indicate that God creates for *no* reason, or that his creation proceeds from
him intrinsically, for instance flowing from the pure goodness of the divine.[45]
The first option would make God's creative act seem quite arbitrary (Aquinas,
Summa contra gentiles II.24); the second holds other dangers. When Aquinas
says that God does not create because of any need or for the sake of profit,
but only for the sake of his own goodness,[46] is this to say that God's goodness
necessitates the world's creation? Avicenna was commonly accused of having
made just this inference, in line with the mainstream of Neoplatonic teaching,
and of having compromised divine autonomy as a consequence. Does creating
belong to God's essence and nature? Al-Ghazālī suggests a broad dichotomy:

Actions divide into two: voluntary, like animal and human action, and natural, like the
sun's action in shedding light, fire in heating, and water in cooling . . . According to you
[philosophers], God enacted the world by way of necessity from his essence, by nature
and compulsion, not by way of will and choice. Indeed, the whole [of the world] follows
necessarily from his essence in the way that light follows necessarily from the sun. And
just as the sun has no power to stop light or fire to stop heating, the First has no power
to stop his acts.

(*Incoherence* 11, tr. Marmura, p. 128)[47]

This misrepresents Avicenna in various ways, however. First, Avicenna distin-
guishes between divine goodness and generosity, the first being a self-referential
property, whereas the other is other-directed.[48] Second, the distinction between
natural and willed acts that other thinkers make much of simply does not exist
for him in this way. A willed act is no less willed for being perfectly formed

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[43] Reported by John of Salisbury, *Metalogicon* IV.35.
[44] See al-Bāqillānī, *Introduction*, sec. 54; Avicenna, *Metaphysics* (*Shifāʾ*) IX.4 (ed. Marmura, p. 326).
[45] See, e.g., Avicenna, *Remarks and Admonitions* (ed. Forget, pp. 158–9).
[46] *Summa theol.* 1a 19.2 and 44.4 ad 1.
[47] See also al-Ghazālī, *Incoherence* 3, p. 56. Compare Basil of Caesarea, *Hexaëmeron* I.2–3, 5–6; Aquinas,
   Summa contra gentiles II.23. According to Maimonides (*Guide* I.69) the theologians were reluctant
   even to talk of causes (*ʿilla, sabab*) in association with God because of the necessity that attaches to
   the relationship between cause and effect: see, e.g., al-Qushayrī, *Reminder*, ed. Busyūnī, p. 56.
[48] Al-Ghazālī himself puts this best, at *Incoherence* 5 (ed. Marmura, pp. 93–4).

and hence not an arbitrary choice (*ikhtiyār*) in the sense of choosing between alternatives.[49] Third, Avicenna is careful to talk about eternal creation being a "concomitant" (*lāzim*) of divine generosity and hence following upon it, not constituting it (*Annotations* [ed. Badawī, p. 103]).[50] Finally, as Aquinas helpfully points out, the sun-and-its-light metaphor originally was meant to underline not the necessary nature of God's creative act but the fact that, as generous, it extends everywhere indiscriminately (*Quaest. de potentia* 3.15 ad 1).

The dual notions that God both enjoys free will (and is self-sufficient) and is supremely good (and therefore benevolent) are, of course, theological tenets too, and consequently their reconciliation posed an enduring challenge for Christians and Muslims alike.[51] Starting with Odo Rigaldus in the thirteenth century, Christian thinkers made reference to the Trinity as offering a possible way out. If this perfect manifestation of God's creative action exhausts the demands of God's essential goodness (as spelled out in the principle attributed to Dionysius according to which "the good is diffusive of itself"), then the further creation of an imperfect external world would be a free act.[52] However, as has been pointed out, as long as the Platonic maxim according to which the good diffuses itself *maximally* is followed, this does nothing to dispel the trouble.[53] After all, as Proclus had already said, if procession stopped at perfect entities, then first things would be last (*In Timaeum*, ed. Diehl, I: 372–3).

AVERROISTIC NATURALISM

In this thicket of contending strands of Neoplatonic and creationist argumentation, the curiously conservative Aristotelianism of Averroes stands apart. Although originally steeped in Neoplatonism, Averroes's deepening acquaintance with Aristotle's texts, coupled with the profound impression made on him by al-Ghazālī's critique of the philosophers, persuaded him of the deleterious

[49] See Plotinus, *Enneads* VI.8.16.

[50] See Rahim Acar, *Talking about God and Talking about Creation: Avicenna's and Thomas Aquinas' Positions* (Leiden: Brill, 2005) pp. 140–6. Avicenna's talk of "following" mirrors al-Fārābī, *On the Perfect State* I.2.5 (ed. Walzer, p. 100).

[51] See Norman Kretzmann, "A General Problem of Creation: Why Would God Create Anything at All?," in S. MacDonald (ed.) *Being and Goodness: The Concept of the Good in Metaphysics and Philosophical Theology* (Ithaca, NY: Cornell University Press, 1991) 208–28; Eric Ormsby, *Theodicy in Islamic Thought: The Dispute over al-Ghazālī's "Best of All Possible Worlds"* (Princeton, NJ: Princeton University Press, 1984).

[52] Odo Rigaldus, *De erroribus circa durationem rerum exeuntium* (in Dales and Argerami, *Texts*, pp. 48–53); see also Henry of Ghent, *Quodlibet* VI.2, and see Juan Carlos Flores, *Henry of Ghent: Metaphysics and the Trinity* (Leuven: Leuven University Press, 2006) pp. 119–47. See also Bonaventure, *Itinerarium* VI.2.

[53] *Timaeus* 29e–30a; see Kretzmann, "A General Problem," pp. 219–20, commenting on Aquinas, *Sent.* I.2.1.4sc.

effects of the adoption of the language of emanation by latter-day philosophers (*al-muʾ akhkhirūn*). Because of the numerous difficulties ferreted out by al-Ghazālī, Averroes ended up reverting to a strictly Aristotelian take on causation in which the four causes, plus the distinction between potentiality and actuality, are made to do all the work. According to a justly celebrated passage in the *Commentary on the Metaphysics*, efficient causality reduces to neither invention (*ikhtirāʿ*) nor emanation, nor does it require a separate Giver of Forms – rather, it consists in educing actuality from the potentiality of matter (XII.18, ed. Bouyges, p. 1499). This strictly immanent process is spurred by the heavenly rotations and is ultimately inspired by the perfection of the separate intelligences, which in turn find unity in the supreme good of the Prime Mover:

> And if this were not so, then neither order nor proportion would exist here in this world. With this, the claim is verified that God is the creator (*khāliq*), supporter, and preserver of everything, as he says: "God supports the heavens and the earth, lest they should fall." [Quran 35:39] . . . Therefore the term 'agent' is applied equivocally to what is not in matter and what exists in matter.
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> (*Incoherence* 3, ed. Bouyges, p. 230)

In fact, all that agency amounts to in the case of immaterial principles is final causation.[54] Followers of this model are hard to come by, although Albert the Great, ever the eclectic, refuses to admit a discrepancy between this account and the Neoplatonic one. Educing a form in potentiality from its matter is, according to Albert, merely the way creation is spoken of in physics, whereas procession or flux describes the same process in metaphysical terms. The one tracks generation from the point of view of the patient, the latter from that of the ultimate agent.[55]

Elsewhere, Avicenna's depiction of God as both the first existence-granting agent and ultimate final cause generally won out over Averroes's more austere musings. From among prominent Muslim thinkers, both al-Ghazālī and Mullā Ṣadrā (1571–1640) reproduce these Avicennian tenets when expounding on the divine attributes "the First, the Last," confirming that God is that from which all originally proceeds and that toward which everything finally turns.[56] Bonaventure is a prime example of the same happening in Latin (*Sent.* I.45.2.1c), while Maimonides is a likely bridge between the two traditions, talking as he

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[54] On the details of this view see my "Averroes and the Teleological Argument," *Religious Studies* 38 (2002) 405–28.
[55] *Super Ethica* VI.8 par. 522 (ed. Cologne, 14.2: 448) identifies Avicenna as the prime expositor for the metaphysical viewpoint; see Therese Bonin, *Creation as Emanation: The Origin of Diversity in Albert the Great's* On the Causes and the Procession of the Universe (Notre Dame, IN: University of Notre Dame Press, 2001) pp. 15–17.
[56] See Ghazālī, *Beautiful Names* (ed. Shehadi, pp. 146–7); Mullā Ṣadrā, *Kitāb al-mashāʿir*, secs. 108–10.

does of God as being the "causator of causes," "form of forms," and "end of ends" (*Guide* I.69). These three phrases neatly recount the Neoplatonic moments of procession, staying, and reversion (*prohodos*, *monē*, *epistrophē*), and thereby reveal how far the discussion had advanced beyond either a pre-reflective creationism or a blind acceptance of Aristotle's categories of change. That Maimonides can simultaneously acknowledge that talk of emanation nicely accentuates the operation of efficient causality over a distance (*Guide* II.12) and deny that it presents a credible technical account of the creative process (*Guide* II.22) tells us, however, that even the Neoplatonic heritage was subject to critical review.[57]

There was, in addition, a worry about how to make the metaphysical model of causation fit with Aristotelian naturalism, as is evidenced, for instance, in Aquinas's criticism of Solomon ibn Gabirol (*Summa contra gentiles* III.69). According to Aquinas, Ibn Gabirol had denied causal powers to corporeal substances: the criticism may be misplaced, but it shows a concern with preserving ordinary causal efficacy in a world populated by seemingly omnipresent transcendent agents.[58] Likewise, Buridan – after first emphasizing that God as the Giver of Forms is the "common, first, and in every way primary agent" (*Quaest. Phys.* II.5 [ed. 1509, f. 32va]) – says that if one wishes to account for the diversity in nature without reverting to bare divine omnipotence, "in the natural mode it would be impossible for the same simple and invariable thing to produce different and contrary effects, now these effects and tomorrow others, unless there were other, diverse causes contributing to them" (ibid., II.13, f. 39rb).[59]

At Buridan's disposal is, in fact, a technical vocabulary that allows him to retain the analysis of natural agents and patients, while at the same time making room for divine omnipotence and a potentially omnipresent divine causality. In terms that became standard in the late thirteenth century, omnipotence was said to attach directly to a special "obediential potentiality" in creatures – that is, a unique passive capacity introduced precisely to explain how God might operate on all creatures directly. It is in accordance with this obediential potentiality that Adam could be fashioned by God directly from earth (Genesis 2:7), even against Aristotle's express stipulation that it is only seed and not earth that is potentially a man (*Metaphys.* IX.7, 1048b37–49a2). By contrast, natural agents only ever work on proximate matter and only ever bring out proximate

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[57] See Arthur Hyman, "Maimonides on Creation and Emanation", in J. F. Wippel (ed.) *Studies in Medieval Philosophy* (Washington: Catholic University of America Press, 1987) 45–61.

[58] See John Laumakis, "Aquinas' Misinterpretation of Avicebron on the Activity of Corporeal Substances: *Fons Vitae* II, 9 and 10," *Modern Schoolman* 81 (2004) 135–49.

[59] For discussion, see Joël Biard, "The Natural Order in John Buridan", in J. Thijssen and J. Zupko (eds.) *The Metaphysics and Natural Philosophy of John Buridan* (Leiden: Brill, 2001) 77–95.

form. Duns Scotus had already taught the Franciscans to apply the notion of obediential potentiality sparingly – in effect, only in those cases where the divine will is freely exercised in accordance with absolute power, as in the first act of creation and the production of miracles (*In Metaphys.* IX.12). In adopting such a distinction, scholastics in the post-Scotus period could maintain much of what the Muslim theologians had wanted to emphasize regarding God's free and unfettered agency, while also respecting what the Aristotelian philosophers had to say regarding the natural invariance with which change and coming-to-be regularly occur in this world. The distinction led to numerous interesting thought experiments being conducted in the natural philosophy of Buridan and Nicole Oresme, among others, concerning states of affairs that God could bring about *supernaturaliter* even if they would never come to obtain under the system of causes and effects in place in the actual world.[60] This is another example of how the distinction between *potentia Dei absoluta* and *potentia Dei ordinata* proved fruitful for late scholasticism.

[60] See my "The Impossible, insofar as It Is Possible: Ibn Rushd and Buridan on Logic and Natural Theology," in D. Perler and U. Rudolph (eds.) *Logik und Theologie: Das Organon im arabischen und im lateinischen Mittelalter* (Leiden: Brill, 2005) 447–67.

THE INFLUENCE OF ARABIC ARISTOTELIANISM ON SCHOLASTIC NATURAL PHILOSOPHY: PROJECTILE MOTION, THE PLACE OF THE UNIVERSE, AND ELEMENTAL COMPOSITION

REGA WOOD

Most popular accounts of the introduction of Aristotle's natural philosophy credit Arabic civilization with transmitting classical Greek works to the Latin West.[1] By contrast, a few contemporary authors, hostile to Islam, deny any contribution of the Islamic world to scholasticism. Neither claim is credible. As we shall see, although Arabic Aristotelianism did not provide the primary access to Aristotle's texts themselves, it did make a profound contribution to scholastic natural philosophy.

Confounding this dispute is a misunderstanding of the significance of Arabic-based Aristotle translations. Scholastic authors seldom commented on translations based on the Arabic Aristotle. Almost every major scholastic commentary on Greek philosophical works is based on a direct translation from Greek into Latin, with a few early exceptions. Scholastics evidently recognized that though they were often harder to follow and more obscure than translations from the Arabic Aristotle, Greek-based translations were closer to the original.

So let us look chiefly at the influence of the interpretative tradition of Arabic Aristotelianism on the Latin West, after saying a few words on translations of Arabic texts. We will suggest that though scholastics did not comment on Arabic-based translations of Aristotle, without these translations and more importantly without the interpretative tradition that accompanied them,[2] the

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[1] Jane Smith, "Islam and Christendom," in J. Esposito (ed.) *Oxford History of Islam* (Oxford: Oxford University Press, 1999) pp. 332–3. This chapter is dedicated to Richard Rorty, who made me aware of the problem.

[2] Cristina d'Ancona, who thinks the role of Arabic Aristotelianism in shaping its Latin counterpart already evident, has provided a helpful explanation of the incorporation of Greek exegesis in the Arabic commentary tradition. See her "From Latin Antiquity to the Arab Middle Ages: The Commentaries and the Harmony between the Philosophies of Plato and Aristotle," in L. Honnefelder *et al.* (eds.) *Albertus Magnus und die Anfänge der Aristoteles-Rezeption im lateinischen Mittelalter* (Münster: Aschendorf, 2005) 45–69.

scholastic tradition would have been much poorer; indeed, it might never have arisen. After all, James of Venice's translations had been available since about 1150, but Aristotelian analytics, metaphysics, and natural philosophy began to influence major scholastic authors only when the Michael Scot translations became available around 1225.[3] In fact, before 1225, translations of sections of Avicenna's *Shifāʾ*, chiefly the *Philosophia prima* and the *Liber de anima*, were more influential than Aristotle's own metaphysics and natural philosophy. Michael Scot's greatest contributions are his translations of Averroes, which, however, also include translations of Aristotle. When he translated Averroes's commentaries Scot also translated Aristotle from the Arabic; these translations appeared as separate text blocks of Aristotle followed by the corresponding Averroes commentary. Thus though scholastic authors did not comment on Scot's translation of Aristotle, they had it at hand and often quoted it for difficult passages. Scot also enabled his contemporaries to consult other Arabic authors. For example, Scot translated al-Biṭrūjī's (Alpetragius) *De motibus coelorum (Kitāb al-hayʾa)* to accompany his translation of Averroes's long commentary on *De caelo*.[4] Similarly, Scot translated not only Aristotle's and Averroes's *De animalibus*, but also the corresponding section from Avicenna's *Shifāʾ*.

What the Latin West received from Arabic Spain is best seen not as a series of isolated works by Greek authors, but as a tradition of Aristotelian natural philosophy. Many problems central to scholastic natural philosophy were framed in that tradition by Muslim authors. This is true for topics in metaphysics and epistemology and in psychology and biology. Here, however, we will consider only two authors, Avicenna and Averroes, and three problems in the physical sciences: (1) projectile motion, (2) the place of the universe, and (3) elemental composition.

PROJECTILE MOTION

We will look first at the problem of projectile motion, since interest in it as an instance of action-at-a-distance antedated the reintroduction of Aristotle's natural philosophy proper. Projectile motion is a problem for Aristotle's account of motion because a thrown ball, unlike a pushed ball, is not in constant contact

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[3] René-Antoine Gauthier, "Notes sur les débuts (1225–1240) du premier 'averroïsme'," *Revue des sciences philosophique théologiques* 66 (1982) 321–73.

[4] See Lynn Thorndike, *Michael Scot* (London: Nelson, 1965) pp. 22–5. See, more generally, Charles Burnett, "Arabic into Latin: The Reception of Arabic Philosophy into Western Europe," in P. Adamson and R. Taylor (eds.) *The Cambridge Companion to Arabic Philosophy* (Cambridge: Cambridge University Press, 2005) p. 380. Doubt has been raised about the attribution of many of Scot's translations, as Burnett notes.

with a pusher. Aristotle, however, claims that mover and moved thing must be together; there can be nothing in between them. Indeed, all movement caused by an external mover can be reduced to pushing and pulling by a mover in physical contact with the thing being moved (*Phys.* VII.2).

Authors such as Philip the Chancellor, who had only superficial knowledge of Aristotle's *Physics*, but did know Avicenna, see projectile motion as unproblematic. Philip mentions projectile motion as an example of a mover's power being present in the absence of its essence.[5] Robert Grosseteste's early notes on Aristotle's *Physics* treat projectile motion as at least a potential counterexample to the basic tenet of Aristotelian physics that mover and moved thing must be together. Commenting on *Physics* VII, Grosseteste sought to save the claim by positing a disposition in a thrown object caused by a thrower's great impact (*magna pulsio*). On account of this disposition, even in projectile motion, there was no distance between mover and moved object (ed. Dales, p. 127).

Richard Rufus of Cornwall was less sanguine about Aristotle's account. Moreover, he considered inadequate Aristotle's further suggestion that contact is maintained because the immediate mover in projectile motion is the medium – air, for example – through which the projectile passed. Rufus held that Aristotle's account of the thrower's action on the medium must be supplemented by an account of its effect on the projectile. Specifically, Rufus claimed that the projector produced an impression on the projectile (*In Phys.* VIII.3.1).[6]

Now dispositions are a part of Aristotle's ontology, but he seldom refers to forces and impressions.[7] By contrast, impressions are basic to Avicenna's account of certain acts – especially of images reflected in water or in mirrors and things sensed or understood. These are cases where physical contact between mover and moved object cannot, does not, or need not occur.[8] In a passage from *Liber*

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[5] That is, the power (*virtus*) originating with a thrower is in the rock she throws without the thrower's being there. For Philip the example of projectile motion shows that place need not be determined by circumscription; the virtual presence of the thrower in the projectile suggests that the soul need not be in the body circumscriptively. See *Summa de bono*, ed. Wicki, p. 293.

[6] Silvia Donati disputes the attribution of this work to Rufus, particularly this question. See her "The Anonymous Commentary on the Physics in Erfurt," *Recherches de théologie et philosophie médiévales* 72 (2005) 232–62. For a reply to Donati, see Rega Wood, "The Works of Richard Rufus: The State of the Question in 2008," *Recherches de théologie et philosophie médiévales*, 76 (2009) 1–73.

[7] Older translations of Aristotle from the Greek, such as those of James of Venice, do not employ the term "impressio." By contrast, William Moerbeke introduces the term sparingly in the translations he redacted in the 1260s, as at *Metaphysics* 1046a25 and *De caelo* 301b17–30, which includes a description of projectile motion.

[8] Forms of the Latin *imprimo* translate a variety of Arabic words (*athar, inṭabaʿa, istathbata, munṭabiʿ*), often describing cases in which something immaterial acts on matter. Alternative translations of these same words also play a role; *athar*, for example, was sometimes rendered *affectio*, the term used in *Primus naturalium* (*Shifāʾ*) II.8 to describe projectile motion (see below). Shlomo Pines stresses not *athar* but *mayl quasrī* or violent inclination in his general account, but *mayl* is generally translated

de anima III.7, a work that undoubtedly deeply influenced the early development of scholasticism, Avicenna boldly claimed that contact or striking is not required for acting and being acted on. Just as immaterial objects such as God or the intellect can act on bodies without striking them, so bodies themselves can act on each other without contact. No one can prove that this is not possible, or that distance can prevent one body from acting on another (ed. Van Riet, I: 260–1).

Although Avicenna discusses projectile motion only twice, and those passages do not seem to have influenced the Latin West,[9] scholastic discussions of the topic are nevertheless indebted to Avicenna for his general account of bodies acting by impressions. This account licenses claims for action-at-a-distance, the class to which early "impetus" or "imprint" theories of projectile motion belong. Moreover, there is ample evidence of the influence of Avicenna's claim that bodies can act by imprinting in the works of early scholastics indebted to Avicenna. William of Auvergne, for example, mentions impressions made on souls (male and female), on semen, and so on.[10] Albert the Great, too, describes the efficacy of impressions, even deep within the earth (*Meteora* II.2.4, ed. Cologne, VI.1: 68).

For Latin authors around 1225 encountering for the first time not Avicenna's natural philosophy but Aristotle's physics itself, the problem with such accounts was that impressions fit so poorly into Aristotelian ontology. What sort of qualities were impressions?[11] How could impressions account for local motion? Why should we believe that an imprint or virtual influx could substitute for

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"inclination" or "disposition," and so does not clearly indicate Avicenna's influence. See Pines, "Les précurseurs musulmans de la theorie de l'impetus," *Archeion* 21 (1938) 298–306. For a discussion of translations of *athar* in translations of Aristotle's *Meteorology* see Danielle Jacquart, "De l'Arabe au Latin: l'influence de quelque choix lexicaux (*impressio, ingenium, intuitio*)," in J. Hamesse (ed.) *Aux origines du lexique philosophique Europeen* (Louvain-la-Neuve: Fédération internationale des instituts d'études médiévales, 1997) pp. 167–9.

[9] Pines argues for Avicenna's influence in "Les Précurseurs musulmans," pp. 298–306. For the contrary view, see Anneliese Maier, *Zwei Grundprobleme der Scholastischen Naturphilosophie* (Rome: Edizioni di Storia e Letteratura, 1968) pp. 129–34. Of the two passages, only one was even available in Latin translation (*Liber primus naturalium* [*Shifāʾ*] II.8, ed. Van Riet *et al.*, II: 267–70).

[10] For a more complete discussion of Avicenna's influence on Auvergne, see Roland Teske, "William of Auvergne's Debt to Avicenna," in J. Janssens and D. De Smet (eds.) *Avicenna and his Heritage* (Leuven: Leuven University Press, 2002) 153–70. Probably for William the most important role of impressions is in the production of virtues or habits and in perception or apprehension based on impressed similitudes or species. See Auvergne, "De virtutibus," "De moribus," "De vitiis et peccatis," "De retributionibus sanctorum," "De universo," 1.1, 2.2, 2.3, *Opera omnia* I: 105aD and 107bC–D (apprehensions), 117bC (celestial bodies); 250aG (sins); 268aF (semen); 318aH (vision in the eye); 615aC (basilisk), 682aE (sight), 922aE–G (human and angelic cognition); 1066bH (men's and women's souls).

[11] See the anonymous *Lectura in librum de anima* I.8, ed. Gauthier, p. 102.

substantial contact?[12] For those who considered these merely rhetorical questions, because they rejected such accounts of motion, Averroes provided an alternative account. According to Averroes, projectile motion does not depend on the thrower's continuing to act on the projectile after contact is lost. Instead, the nature of the media through which projectiles move explains how projectile motion can occur. In some respects Averroes is just restating Aristotle: after contact between thrower and thrown object is lost, the medium moves the projectile along. In Aristotelian layer theory,[13] the first layer of a medium moves the second, which moves the third, and so on. Each layer acts on the next after it has been acted on. The problem is to explain why media such as air and water should have the ability to propagate or convey motion from layer to layer, so that all the layers do not stop moving at once when the thrower stops moving (*Phys.* VIII.10, 267a3–4).

Averroes answers first by stating the problem as an Aristotelian puzzle: we can explain projectile motion only if we either (1) suppose that the projectile is a self-moved mover; (2) allow that bodies can move each other without contact; or (3) admit that projectile motion is not continuous. Aristotle opts for the last alternative, an explanation that relies on the fact that projectile motion occurs only in air or water or something of the kind, as Averroes points out. Averroes explains that it occurs only in humid bodies such as air and water, since they lack self-defined boundaries. Accordingly, the parts of such humid bodies do not all move at once; instead, waves travel outwards successively, as is evident when a rock falls into a pool. The motion of a projectile is much like that of a boat carried along on a wave. Since the density of water or air is not fixed, instead of moving as a whole when pushed, their parts move closer together or farther apart and thereby convey motion. Also, fluid bodies can penetrate each other, so that one motion in a fluid does not interfere with another. Fluidity, which the Latin Averroes describes as a quasi-spiritual quality, akin to matter in its receptivity, allows air and water once moved to become *per se* movers themselves. Thus motion in liquids is propagated in much the same way that wave motion propagates itself longitudinally (*In Phys.* VIII.82; cf. *In De caelo* III.28).

As Averroes himself points out, this is a novel interpretation, and it did not go unappreciated by the scholastics. Albert the Great's *Physica* VIII.4.4 is a close paraphrase of Averroes, including examples and adding allusions to such

[12] See Roger Bacon, *Quaest. Phys.* VII, ed. Steele *et al.*, XIII: 338–40.
[13] See Jürgen Sarnowsky, *Die Aristotelish-scholastische Theorie der Bewegung* (Münster: Aschendorff, 1989) p. 384, and also Abel Franco, "Avempace, Projectile Motion, and Impetus Theory," *Journal of the History of Ideas* 64 (2004) 521–46.

medieval military devices as the crossbow, the catapult, and the siege engine. For Albert the characteristics that make air and water capable of sustaining the force and vigor (*vim et robur*) of the initial mover are three: (1) they have no determinate shape; (2) their parts can move independently, one without the other; and (3) they resemble matter in their receptive capacity. Fluids yield to bodies thrown into them, moving in waves, each of which successively expels the next until the violence dissipates.

In a significant departure from Averroes, Albert frequently uses the term 'impetus.' Unlike Averroes, who refers once here to the *virtus movendi* but mostly to motors and motion, Albert speaks of the impetus of the violence of the first mover: the thrower. And, indeed, at this time 'impetus' was a term used not by proponents but by opponents of accounts of projectile motion as a consequence of impressions or virtual influx.[14]

Thomas Aquinas, too, adopts Averroes's explanation of projectile motion, though his presentation is less thorough than his teacher's. Thomas agrees that projectile motion is successive and not continuous despite appearances and that a humid body like air is necessary for projectile motion. He denies that violent motion without contact is possible. Of Albert's three reasons why air and water can continue projectile motion, Thomas considers only one: such media are more susceptible because they are lighter and more subtle than other bodies (*In De caelo* III.7.6; *In Phys.* VIII.22.4). Thomas uses both the terms 'impetus' and 'impression' in his discussion: 'impetus' and more commonly 'impulse' or '*virtus movendi*' describes the thrower's act (*In Phys.* VII.3.11–12; VIII.8.7; VIII.22.3); 'impression' describes its effect in the medium and in the projectile. The impression in the projectile ceases, however, when contact is lost (*In De caelo* III.7.6; *In Phys.* VIII.22.3–4).[15]

On this topic, Aquinas is more influential as a critic. He points out that motion arising from an internal form counts as natural not violent, so we cannot account for projectile motion, which is violent, by positing an intrinsic form.[16]

For those who explained projectile motion as an effect that continues without contact with the thrower it was always a problem to describe the ontological

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[14] See also Bacon, *Quaest. Phys.* VII, ed. Steele *et al.*, XIII: 343.

[15] Some have suggested that Aquinas advocated impetus theory, but this seems mistaken. With the exception of a short phrase cited in defense of this suggestion from *Quaest. de anima* 11 ad 2, which is contradicted in his *De caelo* commentary, all the passages cited for this claim are susceptible of an alternate interpretation. For a more sympathetic evaluation of the suggestion see Maier, *Zwei Grundprobleme*, pp. 134–40.

[16] Like Bacon, Aquinas notes that impressions are posited to explain alteration, not local motion; moreover, Aquinas also observes that stones do not alter – by, for example, changing their color or shape – when thrown (*In De caelo* III.7.6).

status of its cause in such a way as to distinguish violent motion from natural motion. It was easy to adduce experiences incompatible with the Aristotelian explanation, but hard to answer the question: what is the nature of its cause? Richard Rufus, for example, describes projectiles moving at different speeds and in different directions in the same medium; he notices that very light objects are difficult to throw. But when it comes to describing the impression he posits, he says only that it is "some quality or form" (*In Phys.* VIII.3.1). What probably seemed to him a minor, peripheral anomaly did not prompt him to undertake a major reexamination of his ontology.

By contrast, Francis of Marchia did undertake such a reexamination.[17] He distinguishes subsistent from insistent or formally inhering movers, among which he includes the force left behind by the thrower in projectile motion. This *virtus derelicta* is a special kind of form, intermediate between successive and permanent forms. The motion this intermediate form causes is violent, absolutely speaking, since it is contrary to the natural inclination of the thrown object. It is also in a qualified sense natural, however, since it is in accordance with the accidental form imprinted by the initial force (ed. in Schabel, "*Virtus derelicta*," pp. 68–73, 77). Terminology appears to be a problem for Marchia, who starts by employing descriptions that make minimal ontological commitment: a *virtus derelicta* or *recepta* produces a semi-permanent effect, called an influence or impression. Discussion of imprinting and impressions is a sign of Avicenna's continuing influence. Marchia first deploys the concept in describing the effect of a magnet on iron, where its use is uncontroversial. It reappears when projectile motion is likened to the movement of the heavens.

Like Albert the Great, Marchia pays careful attention to Averroes's account. He carefully describes the example of the circular waves produced when a rock is dropped into water. Unlike Albert, however, Marchia is not convinced. He believes his own account is superior precisely because it better accounts for the appearance of continuous motion rather than the successive kind that invisible waves in the medium would produce. Projectiles are not carried along in the air like sailors in a boat. Given that projectile motion can be circular as well as straight, compound, not simple, bodies must play the primary role (ibid., pp. 66–7). Like Rufus, Marchia points to the fact that very light objects are difficult to throw, which is not what you would expect if only the medium moved the projectile (p. 67). And though Marchia, like Rufus, agrees that the

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[17] *Sent.* IV.1.1, ed. Chris Schabel, "Francis of Marchia's *Virtus derelicta* and the Context of its Development," *Vivarium* 44 (2006) 60–80. See also Maier, *Zwei Grundprobleme*, pp. 168–80, and Fabio Zanin, "Francis of Marchia, *Virtus derelicta*, and Modifications of the Basic Principles of Aristotelian Physics," *Vivarium* 44 (2006) 81–95.

medium as well as the force in the projectile plays a role in projectile motion (pp. 70–1), he argues that the force imprinted on the projectile is much more important to the explanation than the action of the medium, and he defends this view regardless of what Aristotle and Averroes held (p. 69).

John Buridan, the most famous proponent of medieval impetus theory, holds views that are similar in many respects to Marchia's. His account of what makes projectile motion violent – its being contrary to the natural inclination of the projectile – might have been borrowed from Marchia, as could the central analogy with magnetic motion (ed. Maier, *Zwei Grundprobleme* pp. 212–14; *Quaest. Phys.* VIII.12, f. 120ra–b).[18] Some of Buridan's objections against Aristotle, including the difficulty of hurling a feather, are found already in Rufus. But Marchia's more distinctive argument, based on the fact that projectile motion can occur in every direction, also appears (pp. 210–11; ff. 120va–b). Like Marchia, Buridan is preoccupied with the problem of the ontological status of the impressed impetus, calling it a great and a difficult doubt. His solution is closely related to Marchia's. Unlike Marchia, however, Buridan does not claim the imprints are intermediates, neither successive nor permanent. Instead, he holds that an impetus is something permanent, though corrupted by the resistance it encounters (pp. 213–14; f. 121ra–b). Buridan states that Aristotle's explanation is impossible. He compromises little with Averroes, whose position he reduces to the claim that projectile motion works by impressing the disposition of lightness on the medium. Gone is the suggestion that the medium plays a role in augmenting projectile motion, and with it the implied acceptance of Averroes's claims about the significance of air's capacity for rarefaction and condensation (pp. 210–11; f. 120va–b).[19]

The use of the term 'impetus' by Buridan, a proponent rather than an opponent of imprint theory, is a new departure.[20] Just where this usage comes from is not clear. It seems to come neither from Avicenna, nor from early Aristotle translations. Still, both Averroes's and Avicenna's influence remains: Buridan defines the newly named quality of impetus as an Avicennian impression: it is a quality designed to move the body on which it is impressed (ibid., pp. 211, 214; ff. 120vb, 121ra–b). And though Buridan rejects Averroes's account of

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[18] Maier prints a revised version of the 1509 edition in *Zwei Grundprobleme*, pp. 207–14. She also prints the text of Buridan's *Reportatio Phys.* VII.5, where many of the same claims are made, see particularly p. 374. Compare Marchia, *Sent.* IV.1.1, ed. in Schabel, "*Virtus derelicta*," pp. 72–3.

[19] Here Buridan quotes not only from the classic passage from Bk. VIII, but also from Bk. IV. See Averroes, *In Phys.* IV.68 (*Aristotelis opera* vol. IV).

[20] The use of the term by opponents of imprint theory may come from Averroes, who after explaining that there are only two species of motion, natural and violent, describes violent motion in air as an effect of impetus. The impetus (or vigor) the air sustains eventually passes away according to Averroes, *In De caelo Aristotelis paraphrasis resolutissima* III.28 (*Aristotelis opera* vol. V).

projectile motion, he accepts Averroes's description of compressibility and uses it to account for reflex motion.

Although in the fourteenth century Buridan's views had comparatively few adherents – none among the Mertonians at Oxford, for example – by 1600 the common scholastic position was that impressed impetus explains projectile motion.[21] Buridan's bold rejection of Aristotle was less popular. Fourteenth- and fifteenth-century proponents of impetus theory, such as Francisco Suárez, attributed their position to Aristotle. Moreover, they agreed with Rufus and Marchia that the medium as well as impressed impetus caused projectile motion. Galileo was in the minority when in *De motu*, an early work, he claimed that Aristotle rejected impetus theory.[22]

So ultimately the problem that Averroes posed for the scholastics was decided against him by fifteenth-century scholastics. Even Averroists such as Augustino Nifo,[23] unlike most great thirteenth- and fourteenth-century philosophers, espoused impetus theory. And to the extent that the scholastics developed a unique solution to the problem, it was in terms of concepts owed at least initially to Avicenna. So although the fortunes of Avicenna and Averroes varied greatly over time, their influence was never absent.

HEAVEN'S IMMOBILE PLACE

By contrast to the problem of projectile motion, the debate on heaven's place was central to medieval natural philosophy. Indeed, it was the most frequently discussed aspect of Aristotle's doctrine of place in the Aristotelian tradition (see Chapter 19). For Aristotle, place is the inner limit of an immobile, containing body. This account encounters difficulty in the case of the outermost sphere, since by definition that sphere has no container.

On this topic, Averroes offers a rich mine of information about the tradition of interpretation, and once more he states the problem as a puzzle: since it is manifest that the celestial spheres rotate, and everything that moves is in a place, they must be in a place. Since there is nothing outside the outermost sphere, (1) the place of the outermost sphere must be an empty dimension or vacuum, something that cannot exist according to Aristotle. Or if we reject that conclusion, then (2) something moves without being in a place, which is contrary to another basic principle of Aristotelian physics.

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[21] See Maier, *Zwei Grundprobleme*, pp. 228, 304–5.
[22] See ibid., pp. 298–305. Maier also lists as later proponents of impetus theory such influential authors as Antonio Rubio, Domingo de Soto, and John Capreolus.
[23] See Maier, *Zwei Grundprobleme*, pp. 295–6.

Though Averroes considered both these alternatives unacceptable, he reports proponents of both views (*In Phys.* IV.43, 45). Indeed, he names adherents of most of the possible alternative views, including Themistius, Alexander of Aphrodisias, Philoponus, al-Fārābī, Avicenna, and Ibn Bājja. Averroes first reports Philoponus's view that (1) place is not the limit of a body, but an empty dimension. Embracing the other horn of the dilemma are Alexander of Aphrodisias and Avicenna, according to whom (2) the heavens are not in a place, either *per se* or *per accidens*.

Other views suggest that the heavens are in a place in virtue of the location of a part or parts. Not reported by Averroes, but sometimes ascribed to Aristotle, is the view that (3) the parts in question are the continuous parts of the last sphere – circle segments, as it were, which locate each other horizontally.[24] Also sometimes described as Aristotle's is the view that (4) the outermost sphere is in a place, not on account of the location of a particular part, but because all its parts are in a place. This view was mistakenly attributed to Themistius on the basis of Averroes's report and subsequently advocated by Aquinas, who held that rotating bodies did not require a containing place, since only their parts and not the entire sphere change places as a whole.[25]

Proponents of the remaining views ascribe the place of the outermost sphere to the location of a particular part. The first two refer to the limits of the outermost sphere itself or the sphere of Saturn which it immediately bounds. Not reported by Averroes is the claim that (5) the heavens are in a place in virtue of the outer limit of the outermost sphere itself. Themistius's actual position, which might have been teased out of Averroes's report, suggests that (6) the part in question is the convex outer limit of the sphere of Saturn around which the outermost sphere revolves. Though this position is now usually ascribed to Themistius, Averroes reports it as Ibn Bājja's, adding that it was also held by al-Fārābī.[26] Averroes's own position is that (7) the outermost sphere is in a place accidentally by virtue of the earth at its center, which has a fixed position *per se* (*In Phys.* IV.43).

[24] See Jon McGinnis, "Positioning Heaven: The Infidelity of a Faithful Aristotelian," *Phronesis* 51 (2006) p. 145. See also Cecilia Trifogli, *Oxford Physics in the Thirteenth Century (ca. 1250–1270): Motion, Infinity, Place and Time* (Leiden: Brill, 2000) p. 189; Richard Rufus, *In Phys.* IV.1.6, ed. Wood, pp. 154–5.

[25] See Trifogli, *Oxford Physics*, p. 191; Aquinas, *In Phys.* IV.7; Cecilia Trifogli, "Il luogo dell'ultima sfera nei commenti tardo-antichi e medievali a Phyica IV.5," *Giornale critico della filosofia italiana* 68 (1989) pp. 147–52.

[26] Edward Grant, "The Medieval Doctrine of Place: Some Fundamental Problems and Solutions," in A. Maierù and A. Bagliani (eds.) *Studi sul XIV seculo in memoria di Anneliese Maier* (Rome: Edizione di Storia e Letteratura, 1981) pp. 75–9. Cf. Trifogli, "Il luogo," pp. 150–5.

With the one exception of (5), every subsequent view espoused by a Latin medieval philosopher is included in Averroes's list of possible views, and scholastics generally referenced Averroes in stating their own views. Views not reported by Averroes generally did not get a hearing. Thus view (3), though now commonly attributed to Aristotle, was espoused by no well-known medieval philosopher. Similarly (4), which Averroes stated very briefly and refuted at length, always remained a minority opinion despite its espousal by Aquinas.

Thus Averroes's report of the tradition was deeply influential, as was his own opinion and Avicenna's. Avicenna's (2) was espoused by Robert Grosseteste,[27] Albert of Saxony, Buridan, and John the Canon; Averroes's (7), by Roger Bacon, Albert the Great, Giles of Rome, Walter Burley, William of Ockham, and John of Jandun. Let us look briefly at an Averroist and an Avicennian: Albert the Great and Buridan. It is easy to see why Albert found Averroes's very original solution to the problem attractive, since it provides a fixed location for the universe. It was based on Ibn Bājja's distinction between the places required for rectilinear and spherical motion: things that move up and down have a bounding place, but things that rotate are fixed in place by the core around which they rotate. Since the center of the outermost sphere, the earth, is fixed in place, Averroes indicates that the part that gives the universe its place is the core around which the outermost sphere rotates.[28] Here he parts company with Ibn Bājja, who pointed to the outer limit of the first sphere around which the outermost sphere rotates, the sphere of Saturn.

Albert the Great's discussion of the place of the heavens is an intelligent paraphrase of Averroes – intelligent because Albert states the view more crisply than the original; he makes clearer a distinction between being in a place *per accidens* and moving *per accidens*. Though it is in a place *per accidens*, the outermost sphere moves *per se*. This is important because otherwise, as Albert points out, opponents of the view could claim that it implied that the motion of the first mover that causes all other motions is itself only accidentally in motion – moved in virtue of the body it rotates around (*Phys.* IV.1.13).[29]

Buridan attacks Averroes's view (7) with a hostile thought experiment in which God moves the outmost sphere in a straight line, in which case even the point at the center of the earth would no longer be fixed. Buridan instead defends Avicenna's view (2) – namely, that the outermost sphere moves

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[27] Grosseteste can also be considered a proponent of (5); see his *In Phys.* VII, ed. Dales, pp. 82–3. More generally here, see Grant, "The Medieval Doctrine," pp. 74–5; Trifogli, "Il luogo," p. 152.

[28] Averroes distinguishes not just between rectilinear bodies and spherical bodies, but between the outermost sphere and the whole universe, composed of the five simple bodies (*In Phys.* IV.43).

[29] This criticism was mounted by Averroes's Oxford critics; see Trifogli, *Oxford Physics*, pp. 196–7.

not by changing place, but in virtue of the changing position of its parts. The orientation of its parts changes on an imaginary axis as they rotate.[30] Since everyone agrees that the rotating outermost sphere does not as a whole occupy a spatially distinct place as it moves, the advantages of this position are obvious.

Since Averroes describes Avicenna's views in only two sentences, it is not entirely clear how much influence his views and particularly the relational aspects of his account exercised.[31] Even so, Buridan describes the ambiguity of the term 'place' in Avicenna's terms. Place properly speaking contains; place in a broad sense can be specified relationally or, as Buridan describes it, by attribution. In this broad sense of 'place,' a thing is said to have changed place if its parts are successively differently related to each other in position, or if over time the whole is differently related to itself in orientation. Buridan holds that if this extended sense of 'place' is admitted, it is easy to solve the problem of the place of the heavens. His view is stated in five conclusions about the outermost sphere (OS):

(1) Taking 'place' properly, the OS is not in a place.
(2) Having no place, the OS does not, properly speaking, move.
(3) Taking place as that in respect of which a body appears to move, OS has a place. Any arbitrarily chosen object will do – the earth, a rock, or Buridan himself.
(4) Averroes is right that OS is in a place *per accidens* as defined in (3), but wrong to hold it is fixed permanently by the earth at its center.
(5) Avicenna is right that OS moves in position as its parts assume successively different relations to the fixed parts of those bodies.

Buridan marvels at how Averroes and Aquinas could possibly disagree with Avicenna that the outermost sphere neither has nor changes place. The only arguments they can mount against considering the broad sense of 'place' are based on Aristotle's authority. But, according to Buridan, in denying motion outside the categories of place, quantity, and quality, Aristotle was referring only to the strict sense of place, and he often also speaks of place in the broader sense as position. As to Aquinas's objection that this would put place in the category of relation, Buridan holds that place, too, is positional since motion by place, like motion by position, signifies the relationship of one body to another. Moreover,

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[30] See McGinnis, "Positioning Heaven," pp. 156–7.
[31] Compare Rega Wood, "Richard Rufus: Physics at Paris before 1240," *Documenti e studi sulla tradizione filosofica medievale* 5 (1994) pp. 112, 117; Trifogli, *Oxford Physics*, pp. 175–80. See also Georges Anawati's article on Avicenna in C. C. Gillispie (ed.) *Dictionary of Scientific Biography* (New York: Scribner, 1970–80) suppl. I: 496. Whatever the reason, relational accounts began gaining influence in the first half of the thirteenth century and reached their apogee in the works of John Duns Scotus. See Trifogli, *Oxford Physics*, pp. 184–6.

unlike other motions, motion by position can occur without a change in the relation of the whole to an extrinsic body or bodies (*Quaest. Phys.* IV.6, f. 72r–v).

Buridan thus accounts for the place of the heavens by appealing to relational concepts of place, concepts that may ultimately derive from Avicenna. So once again Avicenna's influence, like that of Averroes who frames the debate, is lasting and important. On this topic no one would suggest that Latin scholastic responses were entirely original. Equally, however, scholastic philosophers contributed to a debate that went far beyond what Aristotle, Averroes, or Avicenna said.

ELEMENTAL COMPOSITION

Elemental composition was a problem that became more pressing in the course of the Middle Ages. Almost no other topic in natural philosophy awakened so much interest in the fourteenth century. Indeed, focus on the problem eventually led in the sixteenth and seventeenth centuries to a reaction against scholasticism and formal and qualitative accounts of physical interactions.[32]

For scholastics the problem originates with a puzzle formulated by Aristotle himself. According to Aristotle, ordinary animate and inanimate bodies are heteromerous, made up of different kinds of parts, but those body parts are themselves like-parted or homoeomerous. An animal, for example, is made up of skin and bones, hair and teeth, and so on. But an animal's parts (its skin and bones, for example) are themselves like-parted, though composed of elements. The elements of earth, water, air, and fire are so combined in skin, for example, that they cannot be distinguished no matter how sharply we perceive skin. Nonetheless, the elements are present in such homoeomeries, which we will call "mixts" to distinguish them from the compounds that result from elemental combination in modern chemical theories.[33] Moreover, the ingredients from which mixts are generated reemerge in the process of decomposition. So the question is whether and how the elements are present in intact, homoeomerous bodily parts.

Aristotle himself posed the dilemma: if one or more of the ingredients were lost in the process of being combined, then the resulting mixt would not be

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[32] See Maier, *An der Grenze von Scholastik und Naturwissenschaft*, 2nd edn (Rome: Edizioni di Storia e Letteratura, 1952) pp. 3–5.

[33] Paul Needham, following a clue in Duhem, introduced this practice in "Duhem's Theory of Mixture in the Light of the Stoic Challenge to the Aristotelian Conception," *Studies in History and Philosophy of Science* 33 (2002) 685–708, especially 687.

composed of them; if the process of mixture left them intact, then the mixt would not be homoeomerous (*De gen. et cor.* I.10, 327a35–b6). Aristotle solves the problem by claiming that the elements are present potentially.[34]

For medieval natural philosophers, the problem was to explain just what this means and how it is possible, since obviously neither the wetness of water nor the heat of fire is perceptible in such mixts as skin, for example. And, yet, presumably, if all four elements are present in skin, it should have the heat and dryness of fire, the heat and wetness of air, the wetness and frigidity of water, and the dryness and frigidity of earth. Avicenna solves this problem by claiming that elemental forms can be present even when their qualities are muted. Since there is some latitude in the heat required for elemental fire, the fire that is an ingredient of a mixt can be cooler than a flame. However, if its heat is reduced beyond a certain degree, fire will be transformed into another element and disappear. That limit is not reached, however, when the elements are combined in homoeomerous parts, such as skin, according to Avicenna.[35] By contrast, Averroes held that combining elements in a mixt diminished not just elemental qualities, but elemental forms themselves. Since the substance of fire, for example, was present only when there was heat in the highest degree, the fire in a mixt such as skin must be muted, blunted, or fractured.

Because Avicenna believed that elemental forms retained their identity in a mixt, his is called a theory of fixed forms (*formae fixae*); by contrast Averroes's is a theory of fractured forms (*formae fractae*), since he believed that they did not maintain their integrity (*In De caelo* III.67). Though Avicenna's claim that elemental forms retained their integrity in mixts was not generally accepted, his introduction of the concept of latitude into discussions of substantial change played a crucial role in subsequent discussions of alteration.[36]

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[34] According to some distinguished Aristotle scholars, including Dorothea Frede, and according to Maier herself, this is a distinctively medieval problem. Aristotle himself escapes the dilemma in part by identifying elements with their qualities. Thus as long as the elemental qualities are present in the mixture, there is no need to explain separately the persistence of elements themselves as substances. See Maier, *An der Grenze,* p. 10; D. Frede, "On Mixture and Mixables," in J. Mansfeld and F. de Haas (eds.) *Aristotle: On Generation and Corruption, Book I* (Oxford: Clarendon Press, 2004) pp. 303–5.

[35] *Liber quartus naturalium* [*Shifāʾ*] II.1, II.2 (ed. Van Riet, pp. 79–81, 89); *Liber tertius naturalium* [*Shifāʾ*] 14, ed. Van Riet, pp. 138–41.

[36] In medicine, the idea of a latitude in health had been important since Galen's time, and Avicenna's discussions of the differences in the degree of heat between young and old animals (*De animalibus* XII, in *Opera phil.*) was not novel. However, introducing such concepts into discussions of chemical change was an important and influential innovation. On the background since Galen, see Per-Gunnar Ottosson, *Scholastic Medicine and Philosophy* (Naples: Bibliopolis, 1984) pp. 178–9; Timo Joutsivuo, *Scholastic Tradition and Humanist Innovation: The Concept of Neutrum in Renaissance Medicine* (Helsinki: Academia Scientiarum Fennica: 1999) pp. 111–16.

Anneliese Maier indicates that Avicenna's views were as invariably rejected by scholastics as they were universally cited.[37] But this is misleading, since it is only Avicenna's claims about the integrity of elemental forms that were rejected; the remainder of the account was generally accepted:

(1) qualitative latitude in elemental forms;
(2) matter disposed by the appropriate qualities prior to mixture;
(3) mixt forms introduced by a separated substance (giver of forms).[38]

Most importantly, Aquinas accepted these claims, and his briefly stated views were at the core of the third standard opinion, called the modern view.[39] Basic to the modern view is that when the disposition of matter by elemental qualities leads to the introduction of the mixt form, the elements themselves disappear. As Maier herself notes, a key to Aquinas's account is Avicenna's description of the disposition of matter by the mutual interaction of elemental qualities that results in intermediate qualities; the intermediate qualities so produced dispose matter to receive the form of the mixt.[40]

The three basic positions are distinguished, however, by the status of the elemental forms in the mixt composed of them. If Averroes's view posits fractured forms, and Avicenna's fixed forms, Aquinas's might be said to posit lost forms (*formae deperditae*), since he supposes that elemental forms disappear in the course of producing the mixt. His explanation of how the elements nonetheless remain potentially in the mixt depends on the persistence of intermediate qualities derived from mixing extreme elemental qualities. Since qualities act in virtue of the substances from which they originate, Thomas concludes that the elemental substances from which they derive are there virtually.

Most scholastics followed either Averroes or Aquinas. Authors such as Henry of Ghent accepted Averroes without much modification: because elemental forms are less perfect than other substantial forms, they can be diminished like accidental forms, and their partly corrupted substantial forms can be mixed (*Quodlibet* IV.15, ed. 1518, I: 128rM). Others who accepted Averroes's claim that elemental forms were in some respects like accidents include Albert the Great, Peter of John Olivi, Richard of Middleton, and John of Jandun.[41]

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[37] Maier, *An der Grenze*, p. 36.   [38] Ibid., pp. 13–14.
[39] *De mixtione elementorum* (ed. Leonine, XLIII: 155–7). See Joseph Bobik, *Aquinas on Matter and Form and the Elements* (Notre Dame, IN: University of Notre Dame Press, 1998). For Aquinas's commitment to (3), see *De operationibus occultis naturae* (ed. Leonine, XLIII: 184–5) and *In De caelo* III.4.5.
[40] See Maier, *An der Grenze*, pp. 32–3.   [41] Ibid., pp. 38–43.

By contrast, some Averroists rejected his claim that elemental forms are like accidents that can be fractured. They held that elemental forms are subject to intension and remission only in the sense that they can be prevented from achieving full actuality, and their diminished actuality results in correspondingly less intense qualities. This modal interpretation of Averroes's account was first advanced by Richard Rufus. The elemental forms in a mixt are neither merely potentially there, nor fully actual, but rather in proximate or accidental potential, such that only an external impediment prevents their fully realizing their natures. Each of the elemental forms constituting a mixt prevents the others from emerging into full actuality, and that is what Aristotle means by saying that the elements in a mixt are there potentially.[42] Because elements in a mixt are not fully united like other substantial forms, but only fused together – confused to use the technical term – numerically the same elements can reemerge from the mixt when the mixt breaks down and the elements cease to interfere with each other's full actualization. Exciting variations on this modal theory of elemental composition were espoused by Roger Bacon, Henry Bate, Dietrich of Freiberg, Peter Auriol, John Baconthorpe, Francis of Marchia, and John the Canon.[43]

By the fourteenth century, not Averroes but Aquinas had more followers on the subject of mixture, and those followers included not only Dominicans, but Franciscans, such as John Duns Scotus and Ockham, and prominent secular philosophers, such as Walter Burley and Buridan. Duns Scotus's treatment of the problem is particularly clear. He starts by restating the positions of Avicenna and Averroes, claiming that Averroes did not refute Avicenna. Ultimately, however, Scotus rejects not just the positions of Avicenna and Averroes, but also of Aristotle: strictly speaking air, fire, water, and earth are not components of mixts. It is only prime matter itself that really is an element persisting in the mixt. That leaves Scotus with two problems: to provide an acceptable interpretation of Aristotle's words and to explain why certain transformations are possible and others are not: why can wine become vinegar, but the reverse is not possible?

A sign that Scotus takes Avicenna's medical authority very seriously is that before answering the question of why substantial changes occur in a certain order, Scotus offers an explanation of disease not based on conflicting elemental

[42] Rega Wood and Michael Weisberg, "Interpreting Aristotle on Mixture: Problems about Elemental Composition from Philoponus to Cooper," *Studies in the History and Philosophy of Science* 35 (2004) 698–704.

[43] Maier, *An der Grenze*, pp. 46–88.

qualities. Disease and death are caused not by the incompatibility of fire and water in the heart, but by organic parts with incompatible complexions. Having eliminated the dynamics of the interaction of elemental qualities as an explanation of internal changes, Scotus has to explain how it is that matter is disposed for one transformation but not another. He answers by distinguishing between the immediacy of perfection and the immediacy of transmutation. Though the form of the mixt immediately perfects prime matter, not just any arbitrary form can shape any matter. Rather a particular mixt form can only be infused in matter that has previously been informed by a series of other forms in a particular order. Any given mixt requires that the matter involved previously be prepared by a succession of substantial forms in a determinate order. Mixt forms immediately perfect prime matter, but they cannot perfect prime matter that has not previously been perfected by elemental forms.[44]

Scotus's interpretation of Aristotle follows Aquinas: the elements are only virtually contained in the mixt. But Aquinas had left unexplained whether the elemental qualities are virtually contained because they caused the mixt, or because qualities equivalent to the qualities obtained by mixing elements are found in the mixt. Some authors, such as Ockham (*Quodlibet* III.5), affirm both options, which are after all not incompatible. But Scotus clearly opts for resemblance rather than causation (*Reportatio* II.15, ed. Wadding XI.1: 343–5). This allows him a cleaner response to one objection than might otherwise be offered. How can qualities of the elements migrate from one subject to the next? Qualities are supposed to act in virtue of substances and not vice versa, so when matter is informed by a different substantial form, the qualities associated with the original substance should perish. And they do, according to Scotus, but they are replaced by similar qualities.

Burley's account of virtual containment mirrors Scotus's.[45] Mixts virtually contain elemental qualities not because elemental qualities cause the qualities found in a mixt, but because they resemble such qualities; the operation of mixed qualities is specifically similar to the operation of elemental qualities. In other respects, however, Burley is more radical. He subscribes neither to the claim that accidents act only in virtue of substances nor to the claim that agents must be as perfect as the effects they cause. Such considerations had

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[44] Scotus's claims about the necessary succession of forms should not be confused with the theory of the plurality of forms, which claims that more than one substantial form is simultaneously present in physical substances (see Chapters 21 and 46). In fact, in *Opus Oxoniensis* II.15, Scotus begins by rejecting the suggestion that we need posit a plurality of elemental forms in a mixt (ed. Wadding VI.2: 753–7).

[45] Burley, *Tractatus de formis*, pars prior, difficultas 4 (ed. Scott, pp. 42–3).

motivated Scotus to posit a universal agent that acts at the instant the mixt form is induced, loosely modeled on Avicenna's *dator formarum*.[46] By contrast, Burley asserts that qualities can themselves cause a substance, and therefore there is no need to postulate a super-agent, a separated substance or a celestial body, to account for the production of the substantial form of the mixt. Recourse to the celestial to explain the production of more noble mixt forms from the less noble elements is unnecessary;[47] even non-self-subsisting, elemental qualities will suffice as agents.

By contrast, Buridan, like Scotus, supposes that the principal agents in substantial change are celestial forces. However, unlike Scotus, Buridan offers a causal account of the presence of elements in a mixt. A mixt is composite since it retains the powers of the elements (*virtutes elementorum*) that were corrupted when it was generated. Buridan agrees with Scotus that strictly speaking only matter is an element in the composite, and, like Scotus, Buridan distinguishes two kinds of immediacy, but there the agreement ends. Buridan contrasts the absence of a substantial intermediate with the absence of an accidental intermediate. Matter receives the mixt form immediately, but though it is not disposed by the elemental bodies, it is disposed by the qualities they leave behind as they are mixed. The matter that receives the mixt form has no other substantial forms, but it retains the accidents produced by their interaction. And since prime matter is the proper subject of elemental or primary qualities, for Buridan there is a sense in which elemental qualities can migrate from one substance to another. Though these qualities are attributed to composites of matter and form, their real subject is prime matter, and hence they can persist in matter even as the new substantial form is introduced (*In De gen. et cor.* I.22, II.7).

Buridan's is a radical account of the disposition of matter by elemental qualities prior to the introduction of the mixt form. It was a reasonable response, however, to a general problem for proponents of the third way: these philosophers accepted Avicenna's claim that the elements dispose matter for the induction of the mixt form, but since they held that the elements themselves are lost, persisting neither as fixed nor as fractured forms, they were awkwardly placed. Scotus accounted for the disposition by positing a necessary order of forms, with elemental forms necessarily preceding mixt forms. Burley allows elemental qualities to act on their own, and Buridan allows qualities to migrate from substance to substance, since they can persist in the matter without form.

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[46] Scotus, *Additiones magnae* II.15.7 (ed. Wadding, VI.2: 755).
[47] Burley, *Tractatus primus: De comparatione specierum* (also known as the *Tractatus de activitate, De formis accidentalibus*, pars prima), as quoted by Maier, *An der Grenze*, pp. 116–18.

So we can see how strongly proponents of the third way are influenced by Avicenna's initial position. Averroes similarly influenced defenders of the second way, and also defined the problem. And though there were many important, original, and innovative scholastic responses, the influence of both Islamic authors persisted to the end of the scholastic period.

CONCLUSION

Each of the topics we have considered suggests a different narrative line, but in every case there is a story to tell about the influence of Avicenna and Averroes. Similar cases, often featuring other important philosophers in the Arabic tradition, such as Ibn Bājja, al-Fārābī, and al-Ghazālī, can be made for many other topics in natural philosophy. To name just a few, there is the controversy over the estimative faculty, over whether a vacuum is possible, and over the nature of an Aristotelian science. In some respects this is utterly unsurprising. Averroes and Avicenna came from the greatest scientific and scholarly tradition of the early Middle Ages, one that offered at the outset of the Latin university tradition the systematic interpretation of Aristotle provided by the peripatetic tradition. These thinkers grounded their Aristotelianism in logic and accompanied it with expertise in mathematics, astronomy, and medicine. Moreover, Avicenna and Averroes were great philosophers in their own right. Avicenna rethought much of the Aristotelian system of philosophy and offered a new theory of science. By contrast, Averroes criticized the new developments characteristic of Avicenna's Aristotelianism and emphasized the search for apodictic truth. His clear explanations of Aristotle's views and the introduction he provided to the interpretative tradition played a role that cannot be overstated. Without these contributions, comprehensive scientific views of the cosmos focused on significant physical problems might not have arisen in the Latin West.

The tradition of Arabic Aristotelianism achieved its greatest influence after the fundamental institution of Western learning, the self-governing university, had emerged, and after the development of the characteristic methods of scholasticism: disputation and the deliberate confrontation of opposed arguments and authorities. But the sciences of metaphysics and meteorology, physics and chemistry, biology and psychology were introduced together with Arabic Aristotelianism, and it is difficult to imagine what shape they would have taken without that foundation. Scholars recognise this influence in many particular areas, but specialists in scholasticism seldom acknowledge the general debt; hence this attempt to confirm the impact.

The acknowledgment of this debt is not intended to minimize other influences, and here one thinks particularly of great Jewish scholars such as Maimonides and of the Greek commentary tradition. Neither should this debt be understood as diminishing the accomplishments of Latin scholars; indeed, they clearly developed Averroes's views more imaginatively than his Islamic successors. Rather, the influence of Arabic Aristotelianism at the beginnings of distinctively Western science and scholarship is something to celebrate. The fruitful connections between Islamic and Christian Aristotelianism offer reason to hope that future contacts between the two traditions can also contribute to their flourishing.

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CHANGE, TIME, AND PLACE

CECILIA TRIFOGLI

For Aristotle, the natural world is the world of things subject to change. Accordingly, Aristotle's natural philosophy essentially consists in a philosophical investigation of change. Aristotle deals with the most fundamental philosophical issues about change in the *Physics*. Here he determines the intrinsic constituents of a thing that make it possible for it to be subject to change (matter and form), he classifies the types of explanatory factor at work in the natural world (the distinction of the four causes), and in particular he argues for the claim that nature acts for an end (teleological explanation). He also gives a general definition of change, which relates the notion of change to the more basic notions of act and potency, he shows that every change is continuous, and he proves the existence of an eternal motion and an unmoved mover. In addition, he provides a philosophical treatment of the notions of time, place, the void, and the infinite, which are thought to be necessary parts of a complete discussion of change. Because of its extremely rich philosophical content, the *Physics* was intensely studied by medieval philosophers and became the focal text for the assimilation of Aristotle's natural philosophy.

The *Physics* was first made available to the Latin world in the second quarter of the twelfth century, when it was translated into Latin (from the Greek) by James of Venice. It circulated quite slowly, however, and so it was only around the middle of the thirteenth century that the *Physics* started to be widely studied. This is shown by the high number of extant works devoted specifically to the *Physics* – that is, commentaries on it – from the 1250s onward.[1] A clear sign of this great philosophical interest is that most of the major medieval philosophers wrote *Physics* commentaries: for example, in the thirteenth century, Robert Grosseteste, Roger Bacon, Albert the Great, Thomas Aquinas, Giles of

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[1] On the Latin translations of the *Physics*, of the other works of Aristotle, and of Greek and Arabic commentaries see Appendix B. For further discussion, see Bernard Dod, "Aristoteles Latinus," in N. Kretzmann *et al.* (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 45–79.

Rome; and, in the fourteenth century, William of Ockham, Walter Burley, John Buridan, and John of Jandun.

The commentaries on the *Physics* from the thirteenth and fourteenth centuries are the main sources for the study of the Latin assimilation of Aristotle's natural philosophy. Some of these commentaries mainly reflect an exegetical activity aimed at providing an explanation of the literal meaning of the text of Aristotle, which is even more obscure in the Latin translation than in the original Greek. Many others, however, in addition to or as an alternative to the exegetical aspect, show a more philosophical approach, consisting in assessing the cogency of Aristotle's arguments, pointing out problems left open by Aristotle, and providing a solution to them. This chapter will consider three fundamental topics from medieval Latin philosophical discussions of Aristotle's natural philosophy: change, time, and place.

THE ONTOLOGICAL STATUS OF CHANGE

The problem raised in the medieval debate over the ontological status of change can be presented in very abstract terms as follows. Consider a body M (the "mobile") that changes from being non-F to being F, as for example when a body becomes hot – that is, changes from being cold to being hot. A crucial question for medieval authors is one of ontology: how many things and which types of thing are needed in order to account for M's becoming hot? There was common agreement that this requires:

 (i) The body (M) subject to the change of becoming hot (in medieval terms, the mobile substance).
 (ii) The degree of heat at each step of the way – that is, the coolness from which the change starts (the *terminus a quo*), the heat at the end of the change (the *terminus ad quem*), and all the intermediate degrees of coolness and heat that the body takes on while it is in the process of becoming hot. Each such degree is an accident in the category of Quality.
(iii) The agent that makes the body hot – that is, the efficient cause.

What was controversial was whether or not (i)–(iii) are sufficient to account for the body's becoming hot, or whether one needs to posit a further entity, *the change itself*. Or, to take another formulation, if (as it is commonly agreed) one needs to posit the existence of a quality, heat, to account for the fact that a body *is* hot, should one not also posit the existence of a change, becoming hot, to account for the fact that the body *becomes* hot?

Medieval commentators were much concerned with this question. Indeed, it is distinctively medieval, inasmuch as Aristotle does not even explicitly

consider it; nor do Greek commentaries on the *Physics*. The main philosophical motivation for postulating change as a distinct entity is that it seems to have quite distinct properties from the things listed in (i)–(iii). Compare, for example, the body that becomes hot and the becoming hot of this body. The body has extension and physical parts, and these parts are such that they can all exist at the same time. Medieval authors call a thing with this property a "permanent thing." All the things in (i)–(iii) are permanent. The body's becoming hot also has parts (that is, phases), but these parts are such that they cannot exist simultaneously. Instead, they can exist only one after the other: when the body is changing from heat of degree 1 to heat of degree 2, it is not also at the same time changing from heat of degree 2 to heat of degree 3. In medieval terms, the becoming hot of a body is successive rather than permanent. Now if the things in (i)–(iii) are all permanent and the becoming hot is successive, then it is legitimate to ask whether the becoming hot is a thing distinct from the things in (i)–(iii). This is essentially how Ockham in the fourteenth century formulated his question concerning the ontological status of change: are there successive things distinct from permanent things? (*Expositio in Phys.* III.2)

Medieval philosophers were divided on this issue. Some of them claimed that in order to account for the succession of phases in the change of a body it is not necessary to posit the change itself as a thing distinct from the relevant permanent things. They thus took a reductive position on the ontological status of change, in the sense that they posited that a change can be explained completely in terms of permanent things. Others argued that it is not possible to explain the successive nature of a change in terms of permanent things and held a realist view, positing change as a thing distinct from and irreducible to permanent things. The following provides more details about the early phase of the medieval debate in the second half of the thirteenth century.[2] (For fourteenth-century developments, see Chapter 20.)

Historically, Latin medieval philosophers were inspired to debate the ontological status of change by Averroes, whose commentary on the *Physics* was translated into Latin in the first half of the thirteenth century (see Chapter 18). Averroes introduces a distinction between two ways of regarding change. Change can be regarded either as differing only in degree (*secundum magis et minus*) from the form that is its *terminus ad quem*, or as a way towards the form (*via ad formam*). Change regarded as differing only in degree from its final form is nothing other than the form acquired by the mobile body through a change

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[2] The most comprehensive account of this debate in both the thirteenth and fourteenth centuries is in Anneliese Maier, *Zwischen Philosophie und Mechanik* (Rome: Edizioni di Storia e Letteratura, 1958) pp. 59–143.

when this form is still in an incomplete state, namely, in the state of being generated and not in the actual state in which it exists as *terminus ad quem*. So, for instance, a body's becoming hot is nothing other than heat in an incomplete state – one of the intermediary qualities in (ii) above. Change regarded as a way towards the form, however, is really distinct from the final form and is an entity in its own right. Thus, becoming hot is a thing in itself distinct from heat. Averroes maintains that only the first way of regarding change, namely, as the final form in an incomplete state, is true, even if the second way can also be found in Aristotle (*In Phys*. III.4) (see also Chapter 20).

This distinction, which Averroes presents as between two ways of "regarding" change, in fact reflects two irreducible ontologies: reductive and realist. Treated in the first way, becoming hot requires only (i)–(iii) above, and these are all permanent things. If becoming hot is treated in the second way, however, then it is necessary to posit an additional thing, since that change, or way towards heat, is not really the same as heat nor as any other of the relevant permanent things. The ontological commitments of Averroes's distinction were clearly perceived by thirteenth- and fourteenth-century Aristotelian commentators, and the passage of his commentary on Book III of the *Physics* in which Averroes introduces that distinction becomes the *locus classicus* for questioning the ontological status of change.

The early phase of the Latin reception of Aristotle's *Physics* (that is, from around 1250 until 1270, when Aquinas wrote his commentary) is mainly represented by commentaries of English origin, written by arts masters in Oxford.[3] Around ten commentaries from the Oxford arts faculty are extant from this period. Some of the authors are known, such as Geoffrey of Aspall and William of Clifford, but the majority remain unknown.[4] This significant group of early English commentators heavily relies on Averroes for the exegesis of Aristotle's text. They strongly criticize Averroes's reductive view of change, however, and reject Averroes's assumption of a real identity between the change and the form that is its *terminus ad quem*.[5] They argue that since the successive character of

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[3] For a list of the English and Parisian commentaries of these years and basic information concerning the contents, structure, and interrelations of the English commentaries, see Silvia Donati, "Per lo studio dei commenti alla Fisica del XIII secolo. I: Commenti di probabile origine inglese degli anni 1250–1270 *ca*.," *Documenti e studi sulla tradizione filosofica medievale* 2 (1991) 361–441, 4 (1993) 25–133.

[4] An edition of the questions on Books III and IV of the *Physics* in this group of commentaries is now available on a computer disk distributed with my second volume of repertory of these commentaries: *Liber Quartus Physicorum Aristoteli*s: *Repertorio delle Questioni: Commenti Inglesi, ca. 1250–1270* (SISMEL: Florence, 2007).

[5] See Cecilia Trifogli, *Oxford Physics in the Thirteenth Century (ca. 1250–1270)* (Leiden: Brill, 2000) pp. 51–66.

change cannot be explained by something permanent, it is necessary to postulate the existence of a thing that is in its nature successive. They also argue that change cannot be a form because it is that through which or in virtue of which a form is generated in a substance. In making this assumption, they tend to conceive of change as a sort of formal cause of the coming into being of a form. For example, on this view, the body's becoming hot requires two distinct types of cause: an efficient cause (that is, something that actually produces heat in that body), and a formal cause (that is, something in virtue of which heat is produced in that body). The idea is that in the same way that a body *is* hot in virtue of heat as a formal cause, similarly a body *becomes* hot in virtue of a thing that is distinct both from the heat itself and from the efficient cause of this change.

Even some of those commentators who are not willing to adhere to a strongly realist view about change find Averroes's version of the reductive view unsatisfactory. This is the case, for example, with Thomas Aquinas. He makes the very plausible assumption that any ontology of change must be such that it accounts for the distinction between the change and the *terminus ad quem* of the change. After all, there would seem to be more to becoming hot than just the heat that is its *terminus ad quem*. In Averroes's theory of change this distinction can be maintained, since becoming hot is identified with heat in an incomplete state rather than with heat in its complete state as the *terminus ad quem*. Aquinas, however, shows that an incomplete form – for instance, heat in an incomplete state – fares no better as a candidate for the change. He makes this point very clearly with the example of water becoming hot:

> For when water is hot only in potentiality, it is not yet moved; when it has already been heated the heating motion has been completed; but when it shares in heat to some degree, but incompletely, it is being moved toward heat, for what becomes hot shares in heat gradually by degrees. Therefore, the incomplete actuality of heat existing in the heatable thing is itself motion, not, indeed, insofar as it is in actuality alone, but insofar as what already exists in actuality is *ordered toward further actuality*. For if one were to take away its being ordered toward further actuality, the actuality itself, however imperfect, would be the terminus of motion and not motion, as happens when something heats partially.
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> (*In Phys.* III.2, ed. Maggiòlo, n. 285)

Aquinas's point is that, as long as water undergoes the process of being heated, it is not completely hot, but has only some intermediate and incomplete degree of heat; it is, for example, temperate. It would be wrong, however, to infer from this that the process itself of being heated is nothing other than the incomplete actuality of heat. Indeed, if the process of being heated were simply identified with the temperate, then being heated could not be distinguished from its

terminus ad quem. Aquinas makes this point at the very end of the passage with a very illuminating example: if water starts being heated but the process stops abruptly before the water is completely hot, then the *terminus ad quem* of this interrupted change is the temperate form.

More generally, for Aquinas, any incomplete form is such that it can be acquired through a change and so be the *terminus ad quem* of a change. Therefore, identifying the change with an incomplete form always threatens to collapse back into the view on which the change is the *terminus ad quem*. On his view, what needs to be added is an "order toward a further actuality." For example, becoming hot is not simply a temperate form, but it is the temperate in the state of being "ordered" to the further actuality of heat. Here the notion of "order" gives the formal or distinctive condition of change because it adds to the incomplete form of Averroes a dynamical element, which is thought to be typical of change but that an incomplete form as such does not have.[6]

Aquinas's modified Averroism was very influential in the last quarter of the thirteenth century among supporters of a reductive ontology of change, since it avoids some obvious problems with Averroes's original formulation while reflecting the same type of reductive ontology. For both Averroes and Aquinas, change is not a thing distinct from the relevant permanent things involved in the change of a body because it is, in fact, essentially the same as one of those permanent things – namely, the final form. Aquinas's order toward further actuality does not add some new ontological entity to the final form; rather, it merely represents a mode of existence of this form.

THE ONTOLOGICAL STATUS OF TIME

In Aristotle's natural philosophy, time is not something that exists over and above temporal events as a separate entity in which temporal events take place and by means of which we measure their duration. Time rather is an attribute of change. An issue of major controversy among medieval commentators is what kind of attribute of change time is. Is time a real – that is, extramental – attribute or a mind-dependent attribute resulting from our activity of measuring the duration of a change? On another formulation, the question is whether there is a real distinction between time and change, so that time and change are two distinct extramental things, or rather only a conceptual distinction between the

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[6] For a more detailed analysis of the ontological aspects of Aquinas's position, see Cecilia Trifogli, "Thomas Wylton on Motion," *Archiv für Geschichte der Philosophie* 77 (1995) pp. 147–51.

two, so that they are essentially one and the same extramental thing viewed in different ways.[7]

This medieval debate has an Aristotelian origin. Having defined time as some kind of number of change, Aristotle raises the question of whether the existence of time depends on the human soul. He argues that time does not exist without the soul because time is a number and the existence of number depends on the soul, because it depends on the mental operation of counting (*Phys.* IV.14, 223a16–29). Aristotle's dependence claim was accepted and expanded by Averroes. As in the case of change, Averroes's position on the ontological status of time was extremely influential and formed the standard starting point of debates on this issue, especially in the thirteenth century. Its influence stems from the fact that it gives explicit indications about how the dependence of number on the soul applies to the case of time conceived of as some kind of number of change. On Averroes's view, a collection of two stones, for example, and the number two of this collection have a different ontological status. The collection of two stones exists in extramental reality, whereas the number two of this collection exists in the soul and by means of the soul. Accordingly, the number two is not an extramental accident of the collection of two stones, but rather the result of our mental process of counting the stones belonging to that collection.

Averroes then maintains that the same ontological distinction holds for change and time as number of change: change exists outside the soul, in extramental reality, whereas time exists only in the soul (*In Phys.* IV.109, IV.131).[8] He specifies that the relevant collection of which time is a number is that of "the before and after in a change" – a technical medieval expression (arising from Aristotle [*Phys.* IV.11]) for the succession involved in change. Time therefore exists only as a result of the soul's act of numbering the before and after in a change.

In the preceding section, we saw that for Averroes one does not need to posit change as a successive thing distinct from permanent things in order to account for the succession involved in change. This does not imply, however, that the succession in a change is mind-dependent. On the contrary, for Averroes, this

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[7] On this debate and other medieval debates about Aristotle's doctrine of time, see especially Anneliese Maier, *Metaphysische Hintergründe der Spätscholastischen Naturphilosophie* (Rome: Edizioni di Storia e Letteratura, 1955) pp. 47–137.

[8] Averroes's own formulation of this view is more complex. He qualifies the claim that number and time exist in the soul by saying that they exist in the soul in act but in extramental reality in potency. On the details of Averroes's formulation and some obvious problems in it discussed by fourteenth-century commentators (e.g., Thomas Wylton and John of Jandun), see Cecilia Trifogli, "Averroes's Doctrine of Time and its Reception in the Scholastic Debate," in P. Porro (ed.) *The Medieval Concept of Time* (Leiden: Brill, 2001) 57–82.

succession exists also in the absence of the soul. What does not exist without the soul is the "numbering" of the succession or of the before and after in a change, which defines time. Averroes does not clarify what the soul's numbering the before and after in a change is. He obviously does not mean that this is counting the before and after in a change, that is, determining how many such stages there are. He seems rather to mean our discernment and awareness of the succession in a change – for instance, our awareness that in becoming hot a body possesses first heat of degree 1 and later heat of degree 2, but without counting how many intervening stages there are.

Averroes's basic idea that time exists in the soul expresses a reductive view of time that posits that in extramental reality there are not two really distinct things corresponding to time and change, respectively. For Averroes, what distinguishes time from change is a mental operation. Many thirteenth- and fourteenth-century commentators share Averroes's reductive view. An eminent example is Ockham. He claims that "time is not an extramental thing distinct from motion. But every imaginable extramental thing signified by the name 'time' is also signified by the name 'first motion'" (*Expositio in Phys*. IV.27.4 [*Opera phil*. V: 291]). Ockham specifies, however, that the names 'change' and 'time' are not synonymous, inasmuch as they have different nominal definitions. In addition to the extramental things signified by the name 'change,' the name 'time' consignifies "the soul that numbers – that is, the soul saying that the mobile is first here and later there and that these are distinct; that is, that the mobile cannot be simultaneously here and there" (ibid., IV.21.6 [V: 225–6]).[9] Accordingly, for Ockham as for Averroes, what makes the difference between the notions of change and time is the reference to mental activity.

There was, however, also strong opposition to Averroes's reductive view. Many thirteenth-century commentators, including Roger Bacon, Albert the Great, William of Clifford and many anonymous English commentators, think that the claim that the existence of time depends on the soul is basically wrong.[10] They argue that this claim derives from mistaken assumptions about the ontological status of number and that it conflicts with other basic properties that Aristotle ascribes to time – for example, that there exists only one time and that time is a quantity. Yet these thirteenth-century realists, while advocating that time is an extramental thing distinct from change, do not provide very good arguments for this real distinction. Some fourteenth-century realists are more

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[9] On Ockham's view on time, see Marilyn McCord Adams, *William Ockham* (Notre Dame, IN: University of Notre Dame Press) II: 853–99.
[10] See Trifogli, *Oxford Physics*, pp. 219–30.

successful in this respect. For example, Walter Burley, Ockham's most influential opponent, argues that one needs to posit time as an extramental thing distinct from change in order to account for the succession of past and future phases of a change. His idea is that being past and being future – in general, temporal succession – are found both in time and in every change, but that they belong to time primarily, and to change only secondarily, in virtue of time. So he claims that

motion is said to be past only because it was in past time, and one of its parts is before and another after only because one part was in past time and another in future time . . . From these remarks it is evident that the before and after in duration primarily and essentially are in time and they are in motion only in virtue of time, since, that is, motion is conjoined to time. Hence it follows that time is really different from motion.

(*In Phys.* IV, ed. 1501, f. 127rb–va)

THE IMMOBILITY OF PLACE

Aristotle defines the place of a body A as the surface or limit of the body B that contains A and is in contact with it. The example that Aristotle uses to illustrate his definition is that of the water contained in a vessel: the place of water is the internal surface of the vessel in contact with the water. The essential idea is to define the place of a body in terms of its surroundings, in terms of something containing it. He thinks that this idea reflects our ordinary intuition concerning how we locate things. In arguing for his container view of place, Aristotle also considers an alternative account of place as something coextensive with the located body. According to this alternative account, the place of the water contained in a vessel would be the extension between the sides of the vessel that the water occupies. Aristotle strongly rejects the coextensive view, however, primarily because it is committed to positing a three-dimensional incorporeal extension that is not the extension of a natural body – that is, it is committed to space. Aristotle, however, strongly denies the existence of any such incorporeal extension. Thus his container theory of place rests on the ontological assumptions that there is no space and that all we have to work with, in building a theory of place, are natural bodies (*Phys.* IV.4).

Medieval commentators generally agree with Aristotle that place must be defined without positing the existence of an incorporeal space and that being a container is an essential property of place. Many of them also think, however, that this cannot be the only essential property of place. Instead, they maintain that an adequate definition of the place of a body must also take into account the position of this body in the "cosmological" frame of reference, as given by the immobile central earth and the immobile celestial poles, the so-called "fixed

points of the universe.'' Place, on this account, depends on a body's distance from these cosmological fixed points.

Medieval commentators appeal to these fixed points of the universe as an attempt to solve an open problem in Aristotle's theory. Aristotle posits that place is not just any container, but an immobile container. For example, the water carried around in a vessel is not strictly speaking in the vessel as its place because the vessel, although it is the immediate container of water, is subject to motion, whereas place must be immobile (ibid., 212a14–24). The problem is that this immobility requirement seems to be incompatible with the ontological status of place. For Aristotle, place is a part of the containing body. (Since it is merely a limit of that body, however, it is conceived of not as an integral part but as an accidental form.) But the containing body, being a natural body, is subject to motion; therefore its limit, namely, the place of the contained body, should also be subject to motion. Thus it seems that the immobility of place cannot be reconciled with its ontological status.[11]

In attempting to find a solution to this standard objection, thirteenth-century commentators raise the preliminary question of why place should be immobile. Aristotle gives no explicit reason for this, and neither does his authoritative commentator, Averroes. Thirteenth-century commentators, however, point out quite a good reason for the immobility requirement: that the admission of a mobile place would create difficulties for the definition of local motion and rest. They take it to be true, by definition, that something moves locally when it changes place and is at rest when it is in the same place. But if place is taken simply as the limit of the containing body without securing its immobility, then the definitions of locomotion and rest would be inconsistent with our ordinary intuitions. Consider the case of a ship anchored in a river. It is commonly assumed that this ship is at rest, but if the place of this ship is the surface of the water in contact with it, then the ship is never in the same place, because it is constantly surrounded by different surfaces of water. Thirteenth-century authors conclude from such examples that we judge rest and local motion with respect to the cosmological frame of reference given by the fixed points of the universe. We judge that the ship anchored in a river is at rest because its distance from the fixed points of the universe does not vary, and we judge that a ship carried downstream is in motion because its distance from the fixed points of the universe varies. For both thirteenth- and fourteenth-century commentators,

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[11] On the medieval debate over the immobility of place and other issues about place, see Edward Grant, ''The Medieval Doctrine of Place: Some Fundamental Problems and Solutions,'' in A. Maierù and A. Paravicini-Bagliani (eds.) *Studi sul XIV secolo in memoria di Anneliese Maier* (Rome: Edizioni di Storia e Letteratura, 1981) 57–79.

the universe with its fixed points is the privileged frame of reference that we implicitly assume in order to judge whether a body is at rest or in motion. Thirteenth-century authors commonly qualify Aristotle's claim that place is the limit of the containing body by adding this cosmological element. Aquinas, for example, maintains that "the limit of the containing body is place not insofar as it is this surface of this mobile body, but according to the order or position that this surface has in the immobile whole" (*In Phys*. IV.6 n. 469). Place is therefore the surface of the containing body considered as having a position in the cosmological frame of reference. Similarly, in interpreting Aquinas's view, Giles of Rome tends to think of place as a composite of the surface of the containing body and the distance of this surface from the fixed points of the universe: the surface of the containing body is the material component of place (or place taken materially), whereas the distance of this surface from the fixed points of the universe is the formal component (or place taken formally), which is what makes the surface of the containing body a place – that is, relevant for the location of bodies (*In Phys*. IV.7). These and many other thirteenth-century commentators contend that this formal component solves the problem of immobility. In the case of the ship at anchor in a river, the ship remains in the same place, because although the surfaces of water in contact with it always change, the distance of these surfaces from the fixed points of the universe stays the same.[12] Aquinas offers the analogy of a fire, which remains the same with respect to its form, even when new combustible matter is added to it (ibid., IV.6, n. 468).

This common thirteenth-century strategy to save the immobility of place is not successful. The problem is that the original ontological objection against the immobility of Aristotle's place remains valid against the "cosmologically" qualified notion of place. In our example, if the surface of the water in contact with a ship anchored in a river changes when the water flows, then there is no way to maintain that the formal component – distance from the fixed points of the universe – remains the same. The reason for this is that such distance is an accident of the surface of water, and accidents of numerically distinct subjects are numerically distinct. So if the surfaces successively in contact with the ship are numerically distinct (because of the flow of water), then the distance – the formal component – must undergo change as well.

Many fourteenth-century commentators (for example, Thomas Wylton, Scotus, Burley, Ockham, and John of Jandun) point out this fundamental problem.[13]

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[12] On this attempted solution, see Cecilia Trifogli, "La dottrina del luogo in Egidio Romano," *Medioevo* 14 (1988) 260–90; *Oxford Physics*, pp. 175–86.

[13] See Trifogli, "La dottrina del luogo," pp. 275–81.

Most often, they give up the idea of an immobile place and acknowledge that place is to some extent mobile. The new strategy then consists in modifying the definition of locomotion and rest in such a way that the ship anchored in a river does not move locally even when its place changes. On this new approach, however, the notion of distance from the fixed points of the universe continues to play an important role. The most influential attempts, like that of Scotus,[14] to define the conditions that two numerically distinct places (two containing surfaces) must satisfy in order to be the initial and final places of some local motion rely on the notion of specific rather than numerical sameness and difference. For example, two numerically distinct surfaces of water successively in contact with a ship anchored in a river cannot be the *terminus a quo* and the *terminus ad quem* of a local motion – that is, no local motion can take place between them – because these two surfaces have specifically (even if not numerically) the same distance from the fixed points of the universe. Although the two surfaces are numerically distinct places with numerically distinct distances, they are, in Scotus's words, the same place "by equivalence with respect to local motion"; that is, they are as indistinct with respect to local motion as if they were numerically the same place.

In conclusion, medieval Latin commentators raise fundamental ontological questions about Aristotle's treatment of change, time, and place. In the case of change, the main issue is whether change is a successive thing distinct from the relevant permanent things involved in a change. A similar ontological issue arises in the case of time: namely, whether time is a thing distinct from motion or whether there is only a conceptual distinction between the two. As for place, a major open problem in Aristotle's theory is the immobility of place. Thirteenth-century commentators assume that immobility is necessary to save our ordinary intuitions about local motion and rest, but they point out that this requirement is not satisfied if place is given the ontological status of the limit of the containing body, as in Aristotle's definition.

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[14] *Ordinatio* II.2.2.1, ed. Vatican, VII: 255–9. On Scotus's position and its fortune, see Grant, "The Medieval Doctrine," pp. 65–72. See also Cecilia Trifogli, "Thomas Wylton on the Immobility of Place," *Recherches de théologie et philosophie médiévales* 65 (1998) pp. 12–22.

THE NATURE OF CHANGE

JOHANNES M. M. H. THIJSSEN

In the *Rules for the Direction of the Mind* (Rule 12), René Descartes pokes fun at the Aristotelian definition of motion. "Who doesn't know what motion is?," he asks rhetorically; he then contends that motion has no need of an explanation, because each and every one of us knows what it is. In *The World* ch. 7, started around the same time, Descartes even claims that he finds the scholastic definition of motion so obscure that he is forced to leave it in "their language" – that is, *motus est actus entis in potentia prout in potentia est* ("motion is the actuality of a thing in potentiality insofar as it is in potentiality").[1] For Aristotle, however, and the medievals in his wake, motion was not merely an event familiar from everyday experience, but a phenomenon whose nature needed closer investigation. The central place that motion occupied in medieval thought can be understood only in the context of Aristotelian natural philosophy, particularly as it was set out in Book III of Aristotle's *Physics* and developed by medieval thinkers.

This chapter will restrict itself to the medieval discussion of the *nature* of motion – that is, it will restrict itself to the question 'What is motion?' or, more generally, 'What is change?' Other significant problem areas which medieval thinkers addressed include the dynamic and kinematic aspects of motion – that is, motion's relations to distance and time, and the causes of motion. In medieval terminology, these aspects concerned the study of motion "with respect to effect" (*penes effectum*) and "with respect to cause" (*penes causam*). In the latter case, some consideration was given also to the forces acting on bodies to produce motions. Phenomena that fourteenth-century thinkers discussed under these headings – and toward which they often took a quantitative, mathematical approach – were gravity, accelerated free fall, projectile motion, and also qualitative changes in a given subject, such as heating. Because the accomplishments of fourteenth-century scholars such as Thomas Bradwardine, Richard

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[1] For further discussion of Descartes's criticism of the Aristotelian account of motion, see Daniel Garber, *Descartes' Metaphysical Physics* (Chicago: University of Chicago Press 1992) pp. 157–9.

Kilvington, Richard Swineshead, William Heytesbury, and John Dumbleton
(all at Oxford University's Merton College) and John Buridan, Nicole Oresme,
and Albert of Saxony (all at the University of Paris) on these topics have already
received considerable attention in histories of science,[2] however, this chapter
focuses instead on what one might call the "ontological" aspects of motion.[3]

THE ROLE OF CHANGE IN ARISTOTLE'S NATURAL PHILOSOPHY

The *Physics* was only one of Aristotle's works on natural philosophy, but from
the medieval perspective it was the most important one. It was understood to
provide a characterization of the most general principles and properties of the
"things that are by nature."[4] Examples of natural things are animals and their
parts, plants, and the four basic elements: earth, air, fire, and water. They are
natural in a way that other objects, such as artifacts and things that are due
to chance, are not. Why are plants natural objects, though, and beds not?
According to Aristotle, "things that are by nature" are distinguished from non-
natural things in virtue of having a special sort of cause – namely, an inner
source of moving and being at rest.[5] In contrast to human-made objects, a
natural object's specific nature disposes it to certain kinds of behavior, most
notably to all kinds of natural change. Fire, for instance, has an inner impulse to
communicate warmth. Acorns naturally develop into oak trees. Artifacts lack
such an inner source (although they too contain such an inner principle insofar
as they are made out of natural things). A coat, for instance, considered as a
coat, does not have an inner impulse to change.

[2] See, for instance, Marshall Clagett, *The Science of Mechanics in the Middle Ages* (Madison: University
    of Wisconsin Press, 1959); Peter Damerow *et al.* (eds.) *Exploring the Limits of Preclassical Mechanics*
    (Dordrecht: Springer, 1992); Edward Grant, *The Foundations of Modern Science in the Middle Ages.*
    Their Religious, Institutional and Intellectual Contexts (Cambridge: Cambridge University Press, 1996);
    John Murdoch and Edith Sylla, "The Science of Motion," in D. Lindberg (ed.) *Science in the Middle*
    Ages (Chicago: University of Chicago Press, 1978) 206–65; Edith Sylla, *The Oxford Calculators*, in N.
    Kretzmann *et al.* (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge
    University Press, 1982) 540–64; John North, "Natural Philosophy in Late Medieval Oxford," in
    J. Catto and R. Evans (eds.) *The History of the University of Oxford*, vol. II: *Late Medieval Oxford*
    (Oxford: Oxford University Press, 1992) 76–95.
[3] The following works have proved to be especially helpful in providing the background to this
    chapter: Anneliese Maier, *Zwischen Philosophie und Mechanik* (Rome: Edizioni di Storia e Letteratura,
    1958) esp. pp. 1–143; Cecilia Trifogli, *Oxford Physics in the Thirteenth Century (ca. 1250–1270). Motion,*
    Infinity, Place and Time (Leiden: Brill, 2000) esp. pp. 37–86.
[4] For what follows, see Aristotle, *Physics* 192b9–193a30. The Presocratic and Platonic background
    to Aristotle's views is explained in Friedrich Solmsen, *Aristotle's System of the Physical World: A*
    Comparison with his Predecessors (Ithaca, NY: Cornell University Press, 1960) esp. chs. 4, 5, and 9.
[5] Aristotle, *Phys.* 192b9 (the opening line of Book II). For a modern discussion of what Aristotle
    may have meant by "things that are by nature," see, for instance, Helen Lang, *The Order of Nature in*
    Aristotle's Physics: Place and the Elements (Cambridge: Cambridge University Press, 1998) pp. 40–50.

Aristotle's account of nature and natural objects is couched in the terminology that was primarily reserved for local motion (*kinēsis*). But how does it relate to change in general? In an influential passage in Book III of the *Physics*, Aristotle maintains that motion does not constitute a separate category of its own over and above the things that are moving, but is placed in several categories of entities that are capable of change: Substance, Quantity, Quality, and Place (200b32–201a10). Thus "motion" in this broad Aristotelian sense includes (1) change of quantity (growth and decline); (2) change of quality (alteration, such as white into non-white); (3) locomotion; and (4) substantial change (generation and corruption). In the first three types of change, the substance remains the same and its properties change, whereas in the latter, the substance itself changes. Medieval thinkers did not consider generation and corruption as a type of motion (*motus*), but rather as mutation, or instantaneous change, whereas the other types of changes were viewed as gradual and successive processes.

Among the different types of change, Aristotle considered local motion as primary, in the sense that these other changes were all caused by an antecedent local motion. In a well-known cosmological argument, Aristotle even asserts that *generation* depends on local motion – namely, on the movements of the sun, which are caused by the rotation of the heavens. The sun, as generating body, approaches to and retreats from certain parts of the sublunary world, and thus produces generation and corruption, respectively.[6] 'Motion' (*kinēsis*; *motus*) is used either to cover change of all kinds, or specifically to mean 'local motion.' Since in contemporary contexts it is very hard not to read 'motion' as 'local motion,' this chapter will henceforth use 'change' for 'motion' in this broad sense.

The study of nature (*physis*) is central to Aristotle's physics. Its study determines the topics he chooses for discussion and defines the problems he sets out to solve. Intimately connected with the study of nature is the concept of local motion and, more generally, change: "Nature is a principle of motion and change (*kinēseōs kai metabolēs*), and it is the subject of our inquiry. We must therefore see that we understand what change is; for if it were unknown, nature too would be unknown" (*Phys.* III.1, 200b10–15). Thus, the question "What is change?," considered obsolete by Descartes, is crucial in Aristotle's project to clarify nature – an endeavor undertaken in Aristotle's *Physics*, particularly in the first three chapters of Book III. When late medieval thinkers came to discuss Aristotle's views on the nature of change, either in commentaries on the *Physics* or in other works, they concentrate on two main problems. The first concerns

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[6] See Aristotle, *De generatione et corruptione* II.10, 336a14–b25. Another argument to vindicate the primacy of local motion is provided in *Phys.* VIII.7, 260b29–61a12.

the adequacy of Aristotle's definition of change – the *quid nominis*, so to speak. The second problem concerns the question of what change really is – that is, the *quid rei* or ontological status of change.

THE ARISTOTELIAN DEFINITION

As we saw above, late medieval texts usually render Aristotle's definition of change as "the actuality of a thing in potentiality insofar as it is in potentiality." A question typically raised at the beginning of Book III in fourteenth-century *Physics* commentaries is whether this definition is "good" (*bona*)[7] for, even on its face, it looks problematic. The definition appeals to the notions of actuality and potentiality, which Aristotle considered basic metaphysical factors,[8] but it seems to associate both at once with motion, even though they are contradictories.[9] The examination of these two concepts and their relation is what makes the medieval discussion of the definition of change philosophically interesting: although medieval thinkers always agree in the end that Aristotle's definition of change is, indeed, a good one, they take it in many different directions. Initially shaped by Avicenna and Averroes, the subsequent contributions of Thomas Aquinas, John Buridan, and William of Ockham illustrate something of the many different dimensions that were projected onto Aristotle's definition.

Avicenna introduces an important clarification of Aristotle's definition by observing that an object capable of movement possesses a double potentiality: first, to pass from rest to movement; second, to continue its motion up to the point where there is no potentiality left because the motion has reached its terminus (*Sufficientia* II.1, in *Opera phil.* f. 23rb). When seen from this perspective, the motion itself can be considered the first actuality of the mobile object, whereas the terminus of the motion is the second actuality. For instance, when a mobile has moved from A to B, its first actuality (in retrospect) would have been the transition from rest to movement in A; this would have been the actualization of the potentiality to move. The second actuality would have been the arrival of the mobile at B, when all potentiality to move further has expired. Avicenna's distinction led subsequent medieval authors to debate whether the

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[7] The question harks back to the opening lines of *Phys.* III.2, 201b16–19: "The soundness of this definition is evident both when we consider the accounts of motion that the others have given and also from the difficulty of defining it otherwise." An excellent analysis of this discussion still is Maier, *Zwischen Philosophie und Mechanik*, pp. 1–59.

[8] 'Actuality' translates the medieval *actus*. For a modern discussion about the correct translation and interpretation of the Greek *entelecheia* (*actuality* or *actualization*) and about the cogency of Aristotle's definition, see, e.g., L. A. Kosman, "Aristotle's Definition of Motion," *Phronesis* 14 (1969) 40–62.

[9] Descartes found the definition absurd for this reason. In the discussion of John Buridan, *Quaest. Phys.* III.10, this same objection appears as the first argument to the contrary.

potentiality referred to in Aristotle's definition concerns a body's general dis-position to move, or whether it concerns a moving body's potentiality to reach a specific terminus. In general, they concluded that Aristotle had meant the potentiality towards the motion's terminus, although Avicenna himself did not make a clear choice in this matter. He was merely drawing attention to the multiple dimensions of "potentiality" in Aristotle's definition.

Averroes's main contribution to the discussion of Aristotle's definition is his interpretation of "the thing in potentiality." Averroes takes the "potential being" of the changing object to be a successive passage from potentiality to actuality (*exitus de potentia ad actum*). In other words, on Averroes's view, a changing body does not *exist* in potentiality; it passes from potential being to actual being, and it is already partly in actuality. However, insofar as the change has not yet reached its terminus, it is also in potentiality (*In Phys*. III.9, ed. 1562, f. 89ra).

Aquinas's discussion of Aristotle's definition shows the influence of these Islamic treatments. Focusing on the basic notions of potentiality and actuality, Aquinas's *Physics* commentary (III.2) contends that something can be merely in actuality, merely in potentiality, or in a middle position between the two. Change occurs only with respect to things in this middle category between pure potentiality and actuality: things that are only potential do not change, whereas things that are only in actuality do not change either, because they have already completed their change. The conclusion seems to be that things that are changing are actual, in an imperfect way. In this way, Aquinas adds an important new element to Averroes's analysis: an object in the process of change is not merely incompletely actual; this incomplete actuality is ordered towards a further actuality that is still lacking. This order with respect to a higher actuality (*ordo ad ulteriorem actum*) is an important qualification. If it were taken away, Aquinas maintains, the imperfect actuality itself would become the terminus of the change and, hence, change would cease. Lukewarm water, for instance, is in actuality when compared to its previous cold state, but its actuality is imperfect. Were it not ordered toward further actuality that it does not have, that is, toward further heat, then lukewarm, rather than hot, would be the terminus of change. (See Chapter 19 for a more extensive discussion of Aquinas's account.)

Aquinas's notion of an order of actualities, which is rather obscure as he presents it, is later developed more clearly and extensively by John Buridan. Buridan, too, focuses on the relation between potentiality and actuality (*Quaest. Phys*. III.10, ed. 1509, f. 53v).[10] Like Aquinas (and Avicenna), Buridan maintains that things in motion have not yet fully acquired the perfection or disposition

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[10] For a corrected version of this text (as well as other texts below), see Maier, *Zwischen Philosophie und Mechanik*, pp. 53–5.

they are in the process of acquiring. Hence, they are in actuality insofar as they have partially actualized this disposition or perfection, and they are in potentiality insofar as they still have to fulfill part of this disposition. The decisive feature of Buridan's view is that this potentiality is oriented towards its proper actuality. Without this actual tendency (*actualis tendentia*) or process (*processus*) towards what still has to be fulfilled, nothing would be changing. According to both Aquinas and Buridan, then, Aristotle's phrase "actuality of a thing in potentiality *insofar as it is in potentiality*" precisely captures the dynamic aspect of change: what is characteristic of beings in change is that they are oriented towards an ulterior goal, namely the actualization of what still is potential.

Ockham, earlier in the fourteenth century, had taken a completely different line. His understanding of "thing in potentiality" does not imply an ordering or tendency towards a higher actuality. According to Ockham, Aristotle's definition means that a changing body is in actuality with respect to one thing (be it a quantity, a quality, or a place), and that it is in potentiality with respect to something else (of the same genus), which it now lacks but will obtain immediately afterwards (*Expositio in Phys.* III.3.1).[11] So, for example, a white object that is changing into black is in actuality with respect to whiteness (a quality), and in potentiality with respect to the blackness (also a quality) which it will acquire immediately afterwards.

In their explanation of Aristotle's definition, Aquinas, Buridan, and Ockham were implicitly addressing the question of 'potentiality for what?' in the nature of change. They wish to emphasize that the potentiality of a thing in the process of change, is not a potentiality with respect to being (potential existence), but rather a transition from potentiality into an actuality that is currently lacking. Thus, Aquinas, and even more explicitly Buridan, read into Aristotle's definition that change is a process that strives at fulfillment in that it is ordered toward an ulterior actuality. Ockham, in a way, takes the same lead, but he interprets it in purely temporal terms: an object in change has already acquired something that it did not have before, and it will acquire something else immediately afterwards that it yet lacks.

WHAT KIND OF ENTITY IS CHANGE?

The second main problem associated with the nature of change concerns its ontological status: is change a separate entity, or is it nothing besides the thing changed? In a passage from *Physics* III cited earlier, Aristotle maintains that

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[11] See ibid., pp. 40–5, and Marilyn McCord Adams, *William Ockham* (Notre Dame, IN: University of Notre Dame Press, 1987) II: 799–827.

change is not something over and above the things in change; it does not itself constitute a separate category, but it is placed in several categories, just like potentiality and actuality (200b32–201a3). More specifically, change pertains to the category of the entity that is changing. In the case of a change in color, this would be the category of Quality, but change could also belong to the categories of Substance, Quantity, or Place. Elsewhere, however, Aristotle had made other statements regarding the kinds of change and the category to which they belonged. In the *Categories,* in particular, he had claimed that change falls into one category only, namely that of *Passio* or Affection (11b1–8). In the medieval period, this claim especially came to be juxtaposed with the views expressed in *Physics* III.

Averroes's discussion and reconciliation of this apparent incompatibility also enters into almost all later discussions of this issue. He reconciled the *Physics* with the *Categories* by claiming that, in the former, Aristotle had set forth the more correct view, whereas in the *Categories*, as was his practice in that work, he had spoken according to the more common view. According to the truer view, change appears as a part-by-part generation of its terminus and, as a consequence, belongs itself to the category of this terminus – that is, to Substance, Quality, Quantity, or Place. Change differs from the terminus towards which it tends only in its degree of actuality or perfection, not according to category. But Averroes introduced a further alternative account, according to which change is a process (*via*) towards actuality or perfection. This view implies that change cannot coincide with its actuality. It belongs to a category of its own, different from the form it attains (*In Phys.* III.4). The same distinction recurs in Averroes's commentary on *Physics* V. There it is couched in the terminology of change "according to matter" and "according to form." According to matter, change and its terminus belong to the same category; according to its form, one must view change as a transmutation that takes place in time and constitutes a category of its own (ibid., V.9).

In the fourteenth century, these alternative opinions came to be classified under the formulas *forma fluens* and *fluxus formae*, a distinction that medieval authors usually attribute to Albert the Great (*Physica* III.1.3 [*Opera* IV.1: 151]).[12] According to the *forma fluens* theory, change is nothing but the successive impression of the form upon the changeable body. In the case of qualitative change, for instance, the *forma fluens* is the loss or acquisition of various degrees

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[12] See Maier, *Zwischen Philosophie und Mechanik*, pp. 73–7 and E. J. McCullough, "St. Albert on Motion as Forma Fluens and Fluxus Formae," in J. Weisheipl (ed.) *Albertus Magnus and the Sciences: Commemorative Essays 1980* (Toronto: Pontifical Institute of Mediaeval Studies, 1980) 129–53, for a discussion of Albert's views and of Maier's interpretation thereof.

of a quality, such as blackness in the process of becoming black (*nigrescere*); in the case of local motion, it refers to the places successively acquired by the mobile body. In other words, change is the same as the perfection or form it attains, but it represents that form in a state of flux. How does this account of change relate to the common medieval view that forms are unchangeable? It should be noted that the flowing character of the flowing form is not *in* the form itself, but rather results from the degree of actualization of the form in the *subject*.[13] The *fluxus formae* theory, on the other hand, maintains that change is not the form acquired but is "the flux" of that form – that is, the flow, the process, or the road towards an actuality or perfection. Whether in fact the flow that constitutes change is different in essence from the acquired form became a subject of later debate.

The distinction between these two views provides a convenient framework for presenting the most prominent fourteenth-century views: those of Ockham, Buridan, Albert of Saxony, and Oresme. Ockham's discussion of the nature of change brings into focus the ontological implications of the debate. Although he does not use the terminology just described, his position in effect is that the only correct way to understand change is to see it as a *forma fluens*. According to Ockham, the *fluxus formae* theory implies that motion is a thing that differs from the starting point from which the motion proceeds, from the mobile object, and from the terminus to which it proceeds.[14] In other words, this position would make motion a thing (*res*) really distinct from the objects that move (or, in general, that change). Adhering to a *fluxus formae* theory of motion entails that, besides permanent things (*res permanentes*), the world is also inhabited by successive things (*res successivae*). Permanent things are those whose parts can exist all at once (see Chapter 19); Ockham's opponents had argued that motion could not be such a thing, but was essentially successive.

In contrast, Ockham argues extensively against the existence of successive things. His strongest argument, perhaps, is to invoke his famous Razor and to claim that it is superfluous to assume the existence of any successive things that are really distinct from permanent things. This position, however, leaves Ockham with the burden of explaining the phenomenon of motion (and change) without assuming such really distinct entities. In other words, he has to account for motion exclusively in terms of the individual mobile objects and the places (and forms) that they successively occupy. To this end he undertakes

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[13] See Maier, *Zwischen Philosophie und Mechanik*, pp. 78–83.

[14] See *Expositio in Phys.* III.4.6 (*Opera phil.* IV: 473) and also *Quaest. Phys.* 18–19 (*Opera phil.* VI: 441–7), in which Ockham gives his explanation of Aristotle's and Averroes's position respectively. See also Adams, *William Ockham*, II: 804.

a semantic analysis of the terms 'motion' and 'change.' He concludes that they are not so-called "absolute" nouns referring to individual concrete things, but are really abstract nouns that abbreviate longer complex expressions.[15] Thus the phrase 'change is what goes from prior to posterior' is to be understood as meaning 'when something changes, it goes from prior to posterior'; and the proposition 'motion exists' really is an abbreviation for the proposition 'a moveable object now has something and immediately before did not have it but immediately afterwards will have something else.'[16] In similar fashion, each proposition that contains the term 'motion' can be expounded in such a way as to refer only to individual things. In response, Walter Burley would accuse Ockham of thereby denying the reality of change and, as a consequence, of destroying natural philosophy.[17]

A complication that runs through this debate is the distinction between several different kinds of change, especially between local motion and the others. In the case of local motion, there is no fulfillment of a perfection that inheres in the moving body, inasmuch as the change does not involve the acquisition of a form. Rather, local motion, or change of place, is directed toward an external goal. Despite this distinction, Ockham treated all types of change in the same way. This is not the case with Buridan, who distinguishes between several different kinds of change and qualifies his position accordingly. With respect to qualitative change (*alteration*), he follows the standard position, also defended by Ockham, that the change is not distinct from the subject and the quality that changes. When it comes to local motion, however, where there is no quality or other form to be changed, the flux theory of motion enters the picture. Although Buridan was usually in agreement with Ockham in his adherence to a sparse ontology and a predilection for a semantic approach towards natural science, he did not follow Ockham's more parsimonious account of local motion as a flowing form.

Buridan's defense of the position that motion is an additional flux is based at least partly on theological considerations. In particular, the condemnation of 1277 plays a crucial role in his argument.[18] The condemned proposition 49 denied that God could move the outermost heaven, and therefore the world itself, in a straight line, because such a motion would leave behind a void after the departure of the world from its present position. After the condemnation

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[15] See Murdoch and Sylla, "The Science of Motion," pp. 216–17.

[16] See *Summula philosophiae naturalis* III.3 (*Opera phil.* VI: 252–5); *Quaest. Phys.* 36 (*Opera phil.* VI: 491–3), and also the anonymous Ockham-inspired *Tractatus de successivis* (ed. Boehner, pp. 45–9). See also Adams, *William Ockham*, pp. 822–4.

[17] See Maier, *Zwischen Philosophie und Mechanik*, pp. 46–7, which provides the quotation from Burley.

[18] See *Quaest. Phys.* III.7 concl. 1; see also Murdoch and Sylla, "The Science of Motion," pp. 217–18.

of this thesis, scholastics routinely conceded that God could indeed move the world rectilinearly (and circularly), if it pleased him to do so. But how should one imagine this movement of the entire cosmos as one body?

Aristotle had defined local motion as change relative to place, as "being one way earlier and another way later with respect to it" (*Phys.* V.1, 225a1–3). But on Aristotle's view there is no place outside the cosmos. So to what place should this type of motion be referred? Since there seem to be no places that are successively acquired by the cosmos, there seems to be no motion. But this conclusion is incompatible with Buridan's point of departure – namely, that God can indeed move the cosmos, if he wishes to do so. Therefore, if succession is to be preserved in this case, local motion must involve something else besides the mobile body and the places acquired. Buridan concludes that this something else is a purely successive thing, inhering in the mobile object and yet distinct from it. It is with respect to this flux that the cosmos in motion can be said to be in a relation of continuous change, "being one way earlier and another way later" (*Quaest. Phys.* III.7 concl. 6). Defined this way, 'the flux' designates something internal to the *mobile*.

From the hypothetical case of the cosmos's motion, Buridan applied his conclusions to all types of local motion, including those occurring in natural cases. The upshot of his discussion is that motion is a property or disposition intrinsic to the mobile body. As a quality or something that can be treated as a quality, it possesses a stable being. According to its nature, however, this quality is a purely successive being (ibid., III.12, ed. 1509, f. 54v).

Albert of Saxony, Buridan's colleague on the Paris arts faculty, subsequently defended essentially the same theory – and on the same grounds – but he made some interesting qualifications. Like Buridan and many others, Albert too rejects the view that qualitative changes require a flux that is additional to the attained quality (*Quaest. Phys.* III.5).[19] With respect to local motion, however, Albert distinguishes sharply between the natural and the supernatural cases; he devotes a separate question to each one of them (ibid., III.6–7). Albert's position is that, according to Aristotle and Averroes, motion is not an additional flux. Nevertheless, Albert holds that, according to both the Christian faith and the truth, local motion should be considered a flux inhering in the mobile body. His considerations are the same as those of Buridan. The possible movement

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[19] Note that the older idea that Albert of Saxony and Nicole Oresme belonged to the "Buridan school" needs revision. It is more accurate to view these thinkers as belonging to an intellectual network, who interacted about their theories. See J. M. M. H. Thijssen, "The Buridan School Reassessed. John Buridan and Albert of Saxony," *Vivarium* 42 (2004) 18–42.

of the cosmos by divine omnipotence can only be explained by recourse to a conception of motion as a flux inhering in the mobile body. The conclusion that seems to arise from this discussion is that the *forma fluens* and the *fluxus formae* theories are equally valid, but the latter is preferred for theological reasons.[20]

A particularly nice example of fourteenth-century discussions of change is the first seven questions of Nicole Oresme's commentary on Book III of the *Physics*.[21] There, he discusses several different theories of change and examines arguments for and against them. Among the theories under consideration are both the view that change coincides with the changing object (III.3), and the view that change is itself a flux (III.6). In his overview of the different theories, Oresme ranks himself as an adherent of the *fluxus* theory. According to Oresme, however, if this flux is interpreted in the wrong way, it is the worst possible view. Unlike Buridan and Albert, Oresme does not take the flux as a thing (*res*) distinct from, and added to, the mobile body – instead, he introduces a distinct ontological entity, namely a *modus rei*, or a way of being. Oresme claims that motion, though not a separate successive thing, does have a successive character that is expressed by the mode or condition of the mobile object. These are the object's continuous internal changes, expressed in the now familiar definition of motion as "being in another way than before" (III.6).[22]

Oresme's stance in the fourteenth-century debate about the nature of motion illustrates that the dichotomy between *forma fluens* and *fluxus forma* is too crude. Oresme rejects the *forma fluens* theory. Yet, he sides with Ockham's position in that he, too, believes that motion is not a separate thing (*res*) inhering in the moving subject. Thus, the *fluxus* theory, which usually is a *res* theory, receives a distinctive twist in Oresme's hands. Although Oresme and Buridan disagree about the *res*-like character of motion, they both agree that motion requires an internal reference mark within the mobile body. It is with respect to this reference mark that motion or change can be said to be "in another way than before." In other words, their different positions can be expressed as follows: Oresme views motion as a successive being. The mobile body continuously changes its locations. Motion basically is a process, and it is the mind that

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[20] See Jürgen Sarnowsky, *Die aristotelisch-scholastische Theorie der Bewegung: Studien zum Kommentar Alberts von Sachsen zur Physik des Aristoteles* (Münster: Aschendorff, 1989) pp. 144–9.

[21] The text and an analysis of Oresme's position in the debate about the nature of change is given in Stefano Caroti, "Oresme on Motion (*Questiones super Physicam* III, 2–7)," *Vivarium* 31 (1993) 8–36, and "La position de Nicole Oresme sur la nature du mouvement (*Quaestiones super Physicam* III, 1–8): Problèmes gnoséologiques, ontologiques et sémantiques," *Archives d'histoire littéraire et doctrinale du moyen âge* 61 (1994) 303–85. See also Stefan Kirschner, *Nicolaus Oresmes Kommentar zur Physik des Aristoteles* (Stuttgart: Steiner, 1997) pp. 52–78 and 206–34 for an edition of the Latin text.

[22] See also III.7 (ed. Kirschner, *Nicolaus Oresmes*, p. 234).

represents motion as a unity. Buridan, on the other hand, perceives local motion as a property, namely the property of being at a certain location now, and at another location immediately afterwards. The property of being in motion is such that the moving body continuously changes. As a property, however, motion inheres in a subject, namely the moving body.

In all of this, fourteenth-century theories of change typify the diversity and sophistication of medieval natural philosophy.

IV

SOUL AND KNOWLEDGE

SOUL AND BODY

JOHN HALDANE

BACKGROUND AND SOURCES

Most religions and pre-modern philosophies advance some idea of the soul. In ancient Hebrew thought the notion of *nephesh* refers to living things, but is most often used in connection with human beings, particularly in relation to characteristically human activities. Abstracting from these uses one gets the idea of soul as that which makes a living thing to be alive, and that is present in a body as a result of God's having breathed this life principle (*neshama*) into it. Correspondingly, death is associated with the departure of this animating force. So conceived, soul is not as such a uniquely psychological concept, nor is its referent necessarily a personal entity, and there is no sense that it could exist as a separate substance. Later Jewish thought, both that contemporaneous with the first centuries of Christianity, but more so that of the Middle Ages, does speculate about an immaterial part or element of human beings, but as with Christian doctrines of the immortal soul this is the result of encounters with Greek metaphysics.

The principal philosophical sources of medieval speculation about the existence, nature, and possible immortality of the soul derive from the works of Plato and Aristotle, mediated through later Neoplatonic and Islamic interpreters and commentators. In the *Meno* and the *Phaedo*, Plato explores the idea of the soul as an immaterial substance that animates a body, but that is itself an independently existing intellectual subject. The latter status raises the possibility of the soul's survival of its bodily partner's death, and indeed of its intrinsic immortality (as well as of its possible pre-existence). Plato rehearses a number of arguments that involve the idea that intellectual knowledge is of non-material 'objects' and hence is itself an immaterial power, of an immaterial agent.

These two dialogues were translated from the Greek into Latin in the mid-twelfth century by Henry Aristippus of Sicily, and they served to reinforce the idea, already familiar through Neoplatonic sources and through the translations and commentaries on Aristotle, that a primary function of the soul, from

which its immateriality might be inferred, is the power of abstract thought or intellection.

More than any other source or work from the ancient world, Aristotle's *De anima* influences medieval thought about the nature of soul and its relation to body. The Latin title renders the Greek *Peri psuchēs*, and both expressions point towards a broader understanding of the idea of soul than is associated with later religious and philosophical dualisms of self and body. Interestingly, in fact, Aristotle's approach echoes that of Hebrew Scripture inasmuch as he too is concerned with what makes living things alive, though his enquiry systematizes the phenomena of life, arranges them hierarchically, and gives special place to reason.

In defining *soul* Aristotle makes use of two pairs of concepts that would come to feature extensively in medieval metaphysics: first, *form* (L. *forma*, Gk. *morphē*) and *matter* (L. *materia*, Gk. *hulē*); second, *potentiality* (L. *potentia*, Gk. *dunamis*) and *actuality* (L. *actus*, Gk. *energeia*). In general, forms may be thought of as structuring or characterizing principles; thus, the form of cubidity gives three-dimensional cubed form to a sugar lump, whereas the forms of whiteness and of sweetness characterize its color and taste. Forms that determine the primary or essential nature of substances are called "substantial forms" (see Chapter 46). In the case of material substances these structure and unify matter, making a quantity of it to be a such and such: a cabbage, a rabbit, a human being, or in the case of artifacts, a box, a room, a house, and so on. Matter in general may be thought to be "in potential" to receiving a range of forms, but all particular matter is made actually this or that by being informed by one or another structure. This is the metaphysics of "hylomorphism."

In *De anima* II.1, Aristotle writes that the soul is "the form . . . and actuality of a natural body that has life potentially" (412a27; tr. Hamlyn), meaning by this that it is the body's substantial form. He then adds, however, that actuality can be distinguished at two levels: capacity (*hexis*) and activity (*energeia*). At the first level, to be actual is to be alive and organically structured so as to be *capable* of various animal activities; at the second level, it is to be *active* with respect to these potentialities or capacities – that is, to be actually exercising these powers. Accordingly, potentiality is also distinguishable at two levels: first, being structurally such as may be made alive; second, once that first possibility has been actualized, being such as may become active in some respect or another. Thus Aristotle writes: "If we are to speak of something common to every soul [that is, give a general formula applicable to all kinds of soul], we must describe it as the first actuality of a natural body that has organs [a naturally organized body]" (412b4–5).

Two further points from the *De anima* need to be noted, since they serve to shape subsequent medieval discussions. First, Aristotle speaks of "kinds of soul," which he distinguishes according to the different sets of capacities associated with basic categories of living things. So, broadly, he distinguishes nutrition, growth, reproduction; locomotion, appetite, sensation; and memory, will, and intellect. It subsequently becomes an issue among commentators whether this is the correct basic identification of powers and where the precise boundaries of groupings lie, but in one way or another a three-fold classification emerges of *vegetative*, *sensory*, and *rational* souls. These are also seen to be hierarchically arranged, inasmuch as anything that has a higher set of powers has the lower ones but not vice versa. Rabbits, for instance, take in nutrients, grow, and reproduce just as cabbages do, but unlike cabbages they can also move from one place to another (as contrasted with simply *being moved* by an external force), and they have bodily appetites and sensations. Similarly, human beings are like rabbits in having all of these vegetative and sentient powers, but in addition, and unlike the lower life forms, they also have a rational faculty.

Second, the question arises of whether a soul as Aristotle conceives it – that is, as the substantial form of a living organism – could exist apart from the body it has hitherto informed. The general relationship of form to matter would suggest not. Aristotle writes that the body plus the soul constitutes the animal; he then continues "that the soul or certain parts of it, if it is divisible, cannot be separated from the body is quite clear; for in some cases the actuality is of the parts themselves" (413a3–5). In such cases, the actuality of the powers is the actuality of the relevant organs: thus, the actuality of digesting is the operative actuality of the gut; the actuality of smelling that of the nose; the actuality of seeing that of the eye, and so on. Evidently these activities are impossible without a relevantly organized living body. But, Aristotle then adds, "Not that anything prevents at any rate *some* parts from being separable, because of their being actualities of no body" (413a6). He returns to this possibility in Book III, where he considers reasons for concluding that rational or intellectual activities operate apart from a corresponding bodily part or organ. If this conclusion is in reach, then it seems there may be a route back to the Platonic idea of the soul as a separate something, for we may reason that an immaterial activity presupposes an immaterial power, and that an immaterial power presupposes an immaterial agent or subject.

The proper interpretation of these texts remains controversial. But whatever Aristotle's own view of the issue, the *De anima* generated a range of quite different understandings of the nature of the rational soul and its relation to the body in the later Byzantine, Islamic, and Christian traditions. Syrian Christians,

for instance, began to translate Aristotle's Greek into Syriac in the fourth century, and these texts remained in Byzantine hands until the Islamic conquests of the seventh and eighth centuries. Thereafter these Syriac editions were translated into Arabic along with various Neoplatonic writings – some of which were misattributed to Aristotle (including some of the *Enneads* of Plotinus and some of Proclus's work), while others were recognized as commentaries (see Chapter 1). These texts became the subject of intense study by Muslim philosophers, and they gave rise to Eastern and Western traditions of Islamic philosophy. The most influential representatives of these traditions for the Latin West were al-Fārābī and Avicenna in the East, and Averroes in the West. Averroes, in particular, developed a complex account of the rational part of the human soul, arguing that it is indeed immaterial, separable, and immortal, but on that account it is not something individual or personal but rather a single cosmic intellect. This striking view was to resurface in later debates between Aquinas and Latin Averroists (see Chapters 23, 34).

A further central figure for the medieval Latin tradition was Augustine, who in many respects was aligned with Plato and the Neoplatonists. In Augustine, as to an extent in Plotinus, one finds an approach to the idea of the human soul that connects it with interiority or subjectivity, in the sense of first-person awareness (see Chapter 7). This approach has generally been associated with early modern thought (and in particular, with Descartes), but already in books VIII to X of *De Trinitate*, Augustine observes that we know what a soul is in virtue of having one, and he argues further that this immediate apprehension of the soul's existence and nature is incompatible with its being something bodily. As with Plato and Aristotle, the idea emerges in Augustine that the activity of the higher powers of cognition is immaterial, with the consequent possibility of its operating apart from the body. This view was also shared by two influential Christian–Platonic figures of the following century – namely, Boethius and pseudo-Dionysius (the author long believed to be the Dionysius mentioned in Acts as a convert of St. Paul).

THE HIGH PERIOD OF MEDIEVAL CHRISTIAN PHILOSOPHY

This rich and complex history of sources and ideas provides the main backdrop against which the major figures of medieval Latin philosophy work out their own accounts of the relationship of body and soul in human beings. This section considers five thinkers whose views proved particularly influential (addressing the first, however, only in passing): the Dominicans Albert the Great and Thomas Aquinas, and the Franciscans Bonaventure, John Duns Scotus, and William of Ockham.

With a new wave of Aristotelian material having made its way into Western Christendom in the twelfth century – both through direct translation from the Greek and via Arabic editions and commentaries – the scene was set for intellectual development (see Chapter 4). As part of the very new Order of Preachers, Albert the Great was disposed to innovate intellectually, particularly in bringing Greek philosophy into contemporary inquiry. What he drew upon was a mix of the influences described earlier, and he struggles to articulate a metaphysics that links ultimate principles to an explanatory account of empirical nature. So far as the soul is concerned, he strives to avoid a materialist reduction of the rational powers to complex bodily operations, while also resisting the more extreme versions of Islamic interpretation according to which intellect is an entirely separate single principle that somehow touches, ignites, or illuminates the natural power of imagination in individual human beings.

While agreeing with Averroes that intellect "comes from without" rather than being materially generated from within the body, Albert also believes that each individual has a numerically distinct "acquired intellect" (*intellectus adeptus*) that is immaterial and hence potentially separable.[1] It is hard to resist the conclusion that Albert's obscure theories are the penalty of his own extensive syncretism; but in requiring that a theory of human nature take account of the best philosophy, as well as of Christian teaching, he set a compelling (and rewarding) challenge for his greatest student, Thomas Aquinas.

Bonaventure, following his order's tradition of Augustinian theology, was far less inclined than Albert to grant a major role to philosophy, seeing it primarily as an instrument for articulating and assisting the application of religious ideas.[2] On his account, the human soul is directly created by God and not, as Albert seems to suggest, a product of some intermediary cosmic cause (*Sent*. II.18.2).[3] For Bonaventure, this view is both a matter of religious faith and also a conclusion of the argument that, since the soul is incorruptible and hence immortal, it cannot be an effect of material factors but must rather have an external and supernatural cause. Furthermore, since the soul's activities are in part spiritual, its source must likewise be spiritual – and that source must have the power to bestow sanctifying grace. Hence, the soul's cause must not only be beyond nature but also be a source of supernatural life, which only God can be.

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[1] See *Liber de natura et origine animae* II.6 and *De anima* III. Albert develops his view with reference, but in opposition to Averroistic doctrines in his *Libellus de unitate intellectus contra Averroem*. For discussion of Averroes's view and that of other Islamic thinkers see Herbert Davidson, *Alfarabi, Avicenna, and Averroes on Intellect: Their Cosmologies, Theories of the Active Intellect, and Theories of Human Intellect* (Oxford: Oxford University Press, 1992).

[2] See, e.g., his *De reductione artium ad theologiam*.

[3] See Ilia Delio, *Simply Bonaventure: An Introduction to his Life, Thought and Writings* (Hyde Park, NY: New City Press, 2001) which also contains translated extracts.

Interestingly, even while opposing the introduction of Aristotelianism, Bonaventure himself adopts a metaphysics of form and matter and applies it universally, arguing that every created substance (angels, as well as human beings and other physical substances) is a composite of these two principles. (On such universal hylomorphism, see Chapter 46.) So far as soul and body are concerned, Bonaventure's Aristotelianism involves the following: God creates the entire human soul, which possesses vegetative, sensory, and rational faculties; the human body that derives from sexual reproduction is disposed for the exercise of these various forms of life, but is itself incapable of giving rise to them. Since the soul is the form of the living body, human souls are many in number, corresponding to the population of individual humans. Finally, as the principle of life and action for the entire human being, the human soul is present throughout the whole body – not as a collection of distributed parts, but rather through its simultaneous and unitary causality (*Sent.* I.8.2).

Here there emerges in Bonaventure's view a tension that becomes familiar in subsequent discussions – namely, a tension between the Aristotelian idea that the soul is the form of the body, with which it establishes a substantial unity, and the Platonic–Augustinian conception, which Bonaventure also affirms, of the soul as itself a complete spiritual substance. If the soul is a complete substance, then it must have an individuality apart from that associated with numerically distinct bodies. This, in turn, raises two questions. First, how is such individuation achieved if not through the body – why, in other words, is there not a single immaterial intellectual soul? Second, if the human soul is a something (*hoc aliquid*) apart from its substantial integration with its body, why is it united to a body?

Bonaventure answers the first question by appeal to his universal hylomorphism. Every created entity is composed of matter and form. The human soul is a created entity; hence it, too, is a metaphysical composite of form and matter. But since the soul is also a spiritual substance, its matter must be immaterial – an apparent contradiction that Bonaventure avoids by disambiguating the notion of *matter*. First, we may think of matter generally as the correlate of form. Deploying the concepts of potentiality and actuality, we can then hold that matter *per se* is the metaphysical possibility for the reception of form, resulting in the creation of a substance. This is the sense in which the immaterial soul contains both form and matter. We can distinguish this, however, from a second, more particular version of this potentiality that is corporeal or, as we might now prefer to say, spatio-temporal. This is empirical matter, space-occupying body, or extension, and it is in this sense that the body stands as form to the soul. But the existence of this specific kind of matter does not exclude the possibility

of a non-empirical potential for the reception of form, namely, non-extensive matter.

Supposing this solution is accepted, what of our second question regarding the soul's unification with a material body? Bonaventure points out that the human soul includes vegetative and sensory as well as rational powers. At least the first two of these could not be exercised in the absence of embodiment, inasmuch as nutrition, growth, and sensation are exercised through bodily organs. Also, although rational thought might not require a body, its characteristic expressions in speech and writing do. So the human soul is naturally inclined towards embodiment, and the union of body and soul naturally perfects both. Furthermore, while Bonaventure insists on the spiritual nature of the soul, implying its sanctified fulfillment in mystical contemplation of God, his insistence on the proper completion of the soul in union with the body suggests that the future life for which Christians (and others) hope will also involve bodily resurrection. Thus he is able to remain faithful to the closing words of the Nicene Creed: *et expecto resurrectionem mortuorum et vitam venturi saeculi* ("I look for the resurrection of the dead and the life of the world to come").[4]

In 1270, four years before he and Bonaventure both died, Thomas Aquinas wrote a commentary on the First Letter to the Corinthians in which he follows Paul in tying the prospect of future life to the possibility of bodily resurrection, as established by the example of Christ. In the course of his commentary, Aquinas writes that "the soul is not the whole human being, and my soul is not I" (15.2, ed. Cai, n. 924). So long as 'I' is understood as *the living human being I am*, Aquinas is in agreement with Bonaventure. In other respects, however, there are significant differences.

First, Aquinas's deployment of the metaphysics of hylomorphism is close to that of Aristotle and it eschews the idea of immaterial matter. Second, Aquinas approaches the issue of the human soul–body relationship by deploying the general notion of soul as "the first principle of life in living things" (*Summa theol.* 1a 75.1). Accordingly, he recognizes the tripartite hierarchical structure of the vegetative, sensory, and rational souls. Since soul stands to body as form to matter, the human soul is the organizing and animating principle of the living human body, making it a specific kind of organism and also serving as the intrinsic cause of that organism's self-originating activities.

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[4] Bonaventure argues that the unity of body and soul in the human person is such that, if Mary was taken into heaven, then this must have been a bodily assumption. He writes: "The person is not the soul, it is a composite. Thus it is established that she must be there [heaven] as a composite, of soul and body" (*De assumptione B. Virginis Mariae* I.2.9).

Aquinas's more thoroughgoing Aristotelianism also leads him to insist upon a number of points that at various times have been subjects of controversy. First, he maintains in opposition to the Platonists that a living human being is not a conjunction of two substances – body and soul – but a single unitary subject. He observes, for instance, that it is one and the same individual that walks and sees and thinks, and that it is the human being, not the body or the soul, that does this (ibid., 76.1).

Second, deploying the same observation, he insists against Siger of Brabant and other contemporary Latin Averroists in the University of Paris that Aristotle did not hold that there is but a single active intellect of which individual human minds are but effects, or by which they are temporarily animated souls (ibid., 79.4–5). Nor, he further insists, is this the implication of the *De anima* theory of the rational.[5] If it is the same thing that thinks about abstract ideas as sees (and walks and talks), and if patently it is individual humans who do the latter, then there is a plurality of intellectual thinkers. Similarly, the agent who acts, having chosen to do so, is the same subject who previously considered various courses of action antecedent to choosing, where considering options is a matter of contemplating abstractly specified possibilities, and so is an intellectual activity. Hence it is one and the same agent who contemplates, deliberates, chooses, and acts (ibid., 76.2).[6] Here there is power in Aquinas's arguments against the idea that an Aristotelian approach must lead to the idea of a single intellect (although it is less clear who has the better case so far as Aristotle's own direction of speculation is concerned).

Third, even while arguing that there is a plurality of rational souls corresponding to the number of living human beings, Aquinas insists that there is no more than one soul per individual human being. Someone might suppose otherwise by reasoning as follows. The structure and life of a cabbage is due to a controlling form that organizes various processes so as to effect nutrition, growth, and reproduction. Specifying the form by its proper effects and abbreviating those as "vegetative," we can say that a cabbage has a vegetative form or soul. Now, since a rabbit also engages in those characteristic activities, it too must have a vegetative soul; furthermore, since it also exhibits sensation, appetite, and locomotion, it has a sensory soul besides. Finally, since a human

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[5] For a detailed account of the terms of this debate and the background to it, see Martin Stone, "The Soul's Relation to the Body: Thomas Aquinas, Siger of Brabant and the Parisian Debate on Monopsychism," in T. Crane and S. Patterson (eds.) *History of the Mind–Body Problem* (London: Routledge, 2000) 34–69.

[6] See also *De unitate intellectus contra Averoistas*, and the translation and analysis in Ralph McInerny, *Aquinas against the Averroists: On There Being Only One Intellect* (West Lafayette, IN: Purdue University Press, 1993).

being has both sets of powers, plus the additional ones constitutive of rational life, the human being also has a rational soul. So, a cabbage has one soul; a rabbit has two; and a human being three. Aquinas rejects this conclusion by advancing what we might term the "principle of hierarchical subsumption": namely, that lower-level powers are subsumed under higher-level ones. This has several merits to which I shall return shortly. For the moment, however, I wish to return to the remaining representatives of the Franciscan order, Scotus and Ockham.

Like Aquinas, Scotus is troubled by the Averroistic position that all human beings share a common intellect. Scotus observes, for instance, that the ancient definition of human being as 'rational animal' has been standard among philosophers – indeed, that "No philosopher of any note can be found to deny this except that accursed Averroes in his commentary on *De anima* Book III" (*Ordinatio* IV.43.2c; tr. *Phil. Writings*, p. 138). That definition provided Aristotle with an illustration of how definitions may be essence-specifying, for it first locates human beings within the genus of animals (animate substances) but then differentiates them from other animals by identifying their possession of the faculty of reason. If, however, Averroes were correct in his claim that intellect is a separate substance, conjoined to a human being only *per accidens* through its effects on an intrinsic faculty such as the imagination, then rationality would not be essential to being human.

Of course, pointing to unwelcome consequences of a position does not show that it is false; so, like Aquinas, Scotus sets out to argue the case for the rational soul's being, properly speaking, the form of a human being, and so distinct for each human being. His argument is somewhat similar to Aquinas's, to the effect that it is part of the intrinsic nature of a human being to engage in reflection, and thereby to achieve understanding of abstract issues. Such understanding, however, is a proper effect of the intellectual soul. Therefore, that by which one reflects is an intellectual soul, and since the powers one exercises derive from one's formal nature, it follows that the intellect is part of the essence of a human being. Thus, a human being is a rational animal *per se*.

Involved in both Scotus's and Aquinas's reasoning is the idea that intellectual activity is a non-sensory process, due to the immaterial nature of its objects: universals, essences, and so on, according to one's particular theory. Therefore it is not located in a part of the human body but is attributable simply to human beings as rational animals. Again, like Aquinas, Scotus also argues for our possession of a rational/intellectual faculty through considering the nature of voluntary action. Scotus's argument, however, proceeds via the thought that if volition were simply the exercise of material causality then both it and its effects would be necessitated, whereas the human will is not determined to its

effects (that is, it is not determined to its choices). Freedom of will implies a non–deterministic rational nature that is, in part at least, outside the ordinary causal order.

It is a general feature of Scotus that he inclines to complexity in his theories, whereas Aquinas inclines to simplicity. Thus, while Scotus agrees that there is a single unitary human *soul*, he also maintains that there is a further substantial form of corporeity (*forma corporeitatis*) belonging to the human body as such, apart from whatever nature it possesses in metaphysical consequence of its having a rational soul. An implication of this view is that the rational soul is not the exclusive source of the being of the body. Although the soul confers upon the body the kind of being that constitutes vegetative and sensory bodily life, the body also has corporeal existence as a quantitatively bounded entity, and it acquires this existence through the form of corporeity.[7] For Aquinas, by contrast, the human animal has its being exclusively by virtue of its unitary soul.

Ockham moves yet further, and consciously so, from Aquinas's unifying conception, adding at the same time a thoroughgoing skepticism regarding our grasp of the soul through either immediate experience (in the style of Augustine) or reasoning (in the manner of Aquinas and Scotus). Ockham's avowed point is not to deny that there is an immaterial soul inhering in us, or an immaterial aspect to our nature, but to say that if we believe this to be so, then it is through faith rather than observation or inference. He writes:

If we understand by 'intellective soul' an immaterial and incorruptible form that exists in the entire body and entire in each part [as was maintained by Bonaventure, Aquinas, and Scotus], it cannot be evidently known by reason or experience that such a form exists in us, nor that the understanding proper to such a substance exists in us, nor that such a soul is a form of the body. Whatever the Philosopher [Aristotle] thought of this does not now concern me, because it seems that he remains doubtful about it wherever he speaks of it. These three things are only matters of belief.

<div align="right">(*Quodlibet* I.10; tr. Boehner, p. 143)</div>

Ockham offers less an alternative theory than a series of challenges. Even if we know from experience that we engage in abstract reflection, he says, how do we know that this reflection is not attributable to a corporeal and corruptible form? Furthermore, even if we were confident that our understanding presupposes the existence of an incorruptible substance, how would we know that this is attributable to our formal nature, rather than perhaps being (as the Averroists hold) an effect of something operating through us as a cause of our thoughts? Ockham goes on to maintain that if such a spiritual or immaterial form were present, it could not inform the body directly; but since the living body must

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7 See Scotus, *Ordinatio*, IV.2.3.

be structured by a form, the animating principle must therefore be a sensory one. Like Scotus, however, Ockham thinks that the body possesses the form of corporeity independently, on the grounds that a body that is first living, then dead, then perhaps miraculously reanimated would be one and the same body. Thus he finds himself moving back in the direction of a plurality of forms – corporeal, sensory, and intellectual – but without much confidence in the possibility of philosophy determining their relationship, or even their intrinsic natures (see also Chapter 46).

FROM SCHOLASTICISM TO SKEPTICISM, AND BEYOND

Almost more interesting than Ockham's views on the relation of body and soul are his anticipations of difficulties that would come to loom ever larger in subsequent scholastic and post-scholastic thought. In casting doubt on what can be known of the mind's metaphysical nature through attending to mental acts, for instance, he not only challenges Augustinians, Neoplatonists, and Platonists, but he also prefigures a line of objection to Descartes – namely, that the mind's nature is not transparent to itself. Likewise, in probing the traditional arguments from the abstractness of the contents of thought to the immateriality of mental acts, he might be viewed as opening a door to the possibility of theories of mental computation that seek to show how intentional content can be carried by materially realized operations. Again, his suggestion that an immaterial form could not operate upon the body directly points to difficulties about causal interaction and the inherence in the same substance of material and non-material attributes or forms – difficulties that have bedeviled both substance and attribute dualists from Descartes to the present day.

Subsequent centuries saw many developments of Aristotelian approaches and reassertions of broadly Platonic ones, but the general drift of medieval and scholastic thought was toward an increasing skepticism about what might be demonstrated, culminating in the modern rejection of the whole apparatus of substantial forms in favor of quantitative understandings of bodies and their natures. In 1513, the fifth Lateran Council approved the Bull *Apostolici regiminis*, according to which:

We condemn and reprove all those who assert that the intellective soul is mortal, or that there is only one in all human beings, or who make this question a doubtful one. This is because the intellective soul is not only in its own right and of its nature the form of the human body . . . but it is also immortal, and there can be, are, and must be as many intellective souls as there are bodies into which an intellective soul is infused.[8]

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[8] See C. F. J. Martin, "On a Mistake Commonly Made in Accounts of Sixteenth-Century Discussions of the Immortality of the Soul," *American Catholic Philosophical Quarterly* 69 (1995) 29–37, to which I am indebted for the translation of the Bull.

Yet despite the confident, authoritative tone of this declaration, the very fact that it needed to be composed and promulgated suggests that the tide was turning against the views upheld there. Indeed, whatever the threats of condemnation and reproval, the question *had* become a doubtful one in the minds of increasing numbers of philosophers, and the succeeding centuries have hardly restored certainty to the Christian Aristotelian account of these matters.

That said, there is real merit in the position developed by Aquinas. Setting aside the question of whether there is any cogency in the traditional Thomistic proofs of the immateriality of intellect,[9] Aquinas's principle of hierarchical subsumption suggests an approach to the unification of levels within a substance that is relevant to present-day attempts to reconcile physical, biological, and psychological causality within human beings. It also has implications for the description and explanation of human behavior, since it suggests (in a manner later championed by Wittgenstein) that initial characterizations of human and non-human animals as being engaged in the same activity, as identified through behavioral routines, may fail for want of recognizing that what would be the same activity, absent higher-order subsumption and direction, may be different on account of it. Dogs and human beings may both eat the same food from the same dish, but a man's consuming it may be his dining, whereas a dog's will only be his eating.

The other side of the Aquinian/Aristotelian coin is an insistence upon the bodily aspect of our nature, reminding us that we are animals – be it, perhaps, of a unique sort – and that our life as persons consists largely in bodily activities. Even the intellectual and spiritual aspects that may transcend matter are, nevertheless, expressed in word and deed. Thus any hope of living again recognizably as persons of the same basic sort must rest on some such belief as Aquinas derived from Paul – namely, that we may be recreated as part of a divine plan. The emphasis on human bodiliness is a useful correction to the old but recurrent dualist tendency to identify persons with unobservable selves temporally housed inside visible frames. Seven centuries later, however, the main threat to the scholastic–Aristotelian understanding of human nature comes not from ancient dualism but from modern materialism.

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[9] For contrasting assessments of the traditional Thomistic arguments see Robert Pasnau, "Aquinas and the Content Fallacy," *Modern Schoolman* 75 (1998) 293–314, and John Haldane, "The Metaphysics of Intellect(ion)," *Proceedings of the American Catholic Philosophical Association* 80 (2007) 39–55.

THE SOUL'S FACULTIES

DAG NIKOLAUS HASSE

Most medieval thinkers assume that the human soul has several faculties or powers: basic faculties such as digestion or growth, more elaborate faculties such as movement, vision, or imagination, and the characteristically human faculties of will and intellect. This was the mainstream position, but it was not left unquestioned in the later Middle Ages and in early modern philosophy. Several nominalists, for instance, argue that the powers of the soul are nothing but different names for the soul itself, as it is active in different ways. Later, in the seventeenth century, mechanistic philosophers such as René Descartes claim that there is no real distinction between power and act, nor between soul and powers. Descartes reserves the term 'soul' for the mind, and so reduces the number of powers drastically; he claims that all lower powers, such as sense perception or imagination, are equivalent either to the mind or certain powers of the body. Even Thomistic authors of the sixteenth and seventeenth centuries, who usually defend the theory of the faculties, at times question the traditional set of faculties and reduce their number. Francisco Suárez, for example, holds that common sense, imagination, estimation, and memory are in fact one power, because all these functions can be attributed to one faculty.[1]

Nevertheless, in spite of the criticisms voiced by nominalist and early modern philosophers, medieval faculty psychology itself was well supported by arguments that have their origin in Greek philosophy. In the *Republic*, for example, Plato proposes a threefold division of the soul into reason, spirit, and desire. He bases this theory on the fact that there are conflicts in the soul: we may desire an object and at the same time reject it, as when we desire to drink something but reject it because we think it is bad for us. This can be explained, he believes,

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[1] John Buridan, *Quaest. de anima* II.4, ed. Sobol; René Descartes, *Traité de l'homme* (ed. Adam and Tannery, XI: 201–2); Francisco Suárez, *Commentaria in De anima* 8.1–2. See Dennis Des Chene, *Life's Form: Late Aristotelian Conceptions of the Soul* (Ithaca, NY: Cornell University Press, 2000) pp. 143–51.

only by assuming that the soul has distinct parts that can come into conflict with each other (435e–439d).

Aristotle is the true founding figure of faculty theory. In the *De anima*, he distinguishes many different powers of the soul. Unlike Plato, however, he rarely calls them "parts" of the soul, and his principal argument for the existence of such powers is different from Plato's. Not only are the soul's powers clearly distinct logically, he says, but we also observe that they are distributed variously in nature. They, in fact, form a hierarchy: the lowest plants have only one or two powers, whereas the more complex animals already have a fuller set, and the highest animal – the human being – has the fullest set, including thinking and deliberation in addition to the powers of the lower animals. The soul is both the principle of these powers and defined by them (*De anima* II.2–3).

The Greek medical tradition reinforced the trend of distinguishing faculties of the soul by localizing some of them in different parts of the brain.[2] Galen, for instance, argued that physical damage to the brain often does not affect the entire soul, but only one or two functions, such as phantasy or memory, while the others remain intact. Nemesius of Emesa, in his *De natura hominis* – an influential treatise in Greek, Arabic, and Latin culture – assigned various internal powers of the soul to the different ventricles of the brain (ch. 13).

The high point of medieval faculty theory was classical Arabic philosophy and later medieval Latin philosophy. In the early Middle Ages, faculty psychology was not yet dominant among Christian authors, who were deeply influenced by the Augustinian idea that the soul is an indivisible unity. Hence they widely accepted that the soul and its faculties are identical.[3] When Greek and Arabic texts on faculty psychology were translated into Latin in the twelfth and thirteenth centuries, however, the discussion changes. Albert the Great is an early witness to this change. Albert holds – against the earlier tradition – that the soul's faculties form a unity with the soul only in the sense that soul and faculties together form a *totum potestativum* ("a totality of powers"). Ontologically they are distinct. On this matter, Albert adopts Avicenna's thesis that the organic and non-organic faculties emanate from one substance, the soul, which exists independently of both its actions and its body.[4]

Avicenna is the single most influential source (apart from Aristotle) for medieval faculty theory, in both the Arabic and the Latin world. He strongly

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[2] See also Plato, *Timaeus*, 69c–73d, where the three parts of the soul are located in brain, heart, and liver.

[3] See Pius Künzle, *Das Verhältnis der Seele zu ihren Potenzen: Problemgeschichtliche Untersuchungen von Augustin bis und mit Thomas von Aquin* (Fribourg: Universitätsverlag, 1956).

[4] Albert the Great, *Sent.* I.3.34c; Avicenna, *De anima* (*Shifāʾ*) V.1 (ed. Rahman, p. 208; Van Riet, p. 80).

influenced the general principles of medieval faculty psychology and its detailed treatment of individual faculties.[5] Thus, this chapter will present his system of faculties first, before turning to disputed issues.

AVICENNA'S THEORY OF THE FACULTIES

Avicenna bases his distinction between the faculties on systematic criteria and on observational evidence. His basic principle is that "each faculty – insofar as it is a faculty – is such because from it originates a primary action that belongs to it" (*De anima* [*Shifāʾ*] V.7, ed. Rahman, p. 252; Van Riet, pp. 157–8). A faculty is identifiable by being the cause of an action that it does not share with any other faculty. Hence, the faculty of vision is identified by its primary action, perceiving color, although it also has many secondary actions, such as the perception of black or white. Furthermore, the faculties, Avicenna says, may impede and distract each other from their proper actions (ibid.). This echoes Plato's argument that conflicts in the soul point to the existence of the soul's parts. Avicenna adduces observational evidence to justify the differentiation between powers: unripe fruits possess the nutritive but not the reproductive faculty; decrepit animals possess the nutritive faculty, but they lack that of growth.[6] Avicenna thus adopts the Aristotelian principle that the faculties form a hierarchy and exist independently of each other in nature.

Avicenna's hierarchy of faculties begins with a set that is characteristic of plants but that also exists in animals and human beings – namely, nutrition, growth, and reproduction. These faculties are served by the so-called "subservient faculties" of attraction, retention, digestion, and excretion, which are often discussed in medical texts and which are concerned with the nourishment pertaining to the bodily organs: they attract it, keep it, digest it, and finally remove it.[7]

The animal faculties are generally divided into motive and perceptive faculties. Avicenna distinguishes between two kinds of motive faculties: those that give the impulse and order to move, such as desire and anger, and the faculty that performs the movement, a power distributed in the nerves and muscles, which prompts the muscles and ligaments to contract and extend. Like the majority of ancient and medieval authors, Avicenna holds that there are five external senses:

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[5] This influence continues in the Renaissance; see Katharine Park, "The Organic Soul," in C. Schmitt *et al.* (eds.) *The Cambridge History of Renaissance Philosophy* (Cambridge: Cambridge University Press, 1988) 464–84, especially the table on p. 466, which presents a division of faculties typical for Renaissance philosophical textbooks.

[6] Avicenna, *Psychology* (*Najāt*), tr. Rahman, p. 24.

[7] Avicenna, *De anima* (*Shifāʾ*) I.5, ed. Rahman, p. 51; Van Riet, p. 101; *Psychology* (*Najāt*), p. 37; *Canon*, I.1.6.3 (ed. 1877, p. 68; Latin tr. f. 23vb).

sight, hearing, smell, taste, and touch. He also mentions, without adopting it, the position that there are eight external senses, on the grounds that touch is a genus of four distinct faculties discerning hot and cold, dry and moist, hard and soft, rough and smooth respectively.[8]

In addition to these, Avicenna ascribes to animals and human beings five so-called "internal senses" (*al-ḥawāss al-bāṭina*; *sensus interiores*): common sense, imagination, the cogitative/imaginative faculty, estimation, and memory.[9] Although the term 'internal senses' was coined in Arabic philosophy and popularized in the Arabic and Latin worlds through the work of Avicenna, the ultimate source of the doctrine is Aristotle's discussion of the soul's higher perceptual activities (*De anima* III.1–3; *Parva naturalia*). Aristotle observed, for instance, that we perceive ourselves perceiving, that we distinguish between sense data from different senses (such as sweet and white), that images remain in the soul after the object has disappeared, and that post-sensory images (he calls them *phantasmata*) play a major role in memory, dreams, sensory illusions, and the choice of actions, especially among animals. Avicenna draws on Aristotle, the anonymous Arabic *On sense and sensibilia*, and other Graeco-Arabic material, and in his hands the various doctrines concerning the internal senses develop into a systematic and comprehensive theory – an achievement that counts among the most original contributions of medieval faculty theory.

Avicenna's distinction between the five internal senses is based on two particularly influential principles. First, the faculties differ in that some of them *receive* sensory forms, whereas others *preserve* them. Second, some faculties perceive the "form" (*ṣūra, forma*) of the sensed thing – that is, they deal with data transmitted to them by the external senses, such as the shape and color of the wolf. Other faculties perceive so-called "intentions" (*maʿānī, intentiones*) – that is, attributes of objects that have a connotation for the perceiver that the external senses cannot perceive, such as hostility or friendliness (*De anima* [*Shifāʾ*] I.5). These principles, which were subsequently adopted by Thomas Aquinas and others

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[8] *De anima* (*Shifāʾ*) I.5, ed. Rahman, pp. 41–3, 73; Van Riet, pp. 83–5, 141; *Psychology* (*Najāt*), tr. Rahman, pp. 26–7.

[9] The fivefold distinction of internal senses appears in Avicenna's main philosophical works. In his medical *Canon*, Avicenna mentions that the physicians recognize only three internal senses because they assign one faculty to each of the three ventricles of the brain and do not distinguish between common sense and imagination (anterior ventricle), nor between the imaginative/cogitative faculty and estimation (middle ventricle). This is because they are concerned only with the possible areas of injury. In the *Canon*, Avicenna also mentions a discussion among philosophers about whether memory and recollection might in fact be two faculties (Avicenna, *Canon*, I.1.6.5 [ed. 1877, pp. 71–2, Latin tr. f. 24v–25r]). The fivefold distinction of internal senses is not yet established in Avicenna's very early *Compendium on the Soul* (ed. Landauer, pp. 358–61); see Harry A. Wolfson, "The Internal Senses in Latin, Arabic and Hebrew Philosophical Texts," *Harvard Theological Review* 28 (1935) pp. 95–100.

(*Summa theol.* 1a 78.4c), allow Avicenna to distinguish systematically between the internal senses.

The common sense is located in the front of the brain's front ventricle. It is the place where all sensory forms are received and where such judgments are formed as that this moving thing is black. This, rather than the external faculties, is the power that *truly* senses, inasmuch as it is the center of the senses. The faculty of imagination, the second internal sense, is the storage place of the sensory forms; it does not perceive, but retains. It is located in the rear part of the front ventricle of the brain. The third faculty is called the "imaginative faculty" in non-rational animals and the "cogitative faculty" in human beings. In contrast to all other internal senses, it neither receives nor preserves forms, but acts upon them, combining and separating forms and intentions. This faculty, which resides in the middle ventricle, is responsible for the production of unreal images; its existence explains the hallucinations of mad, sick, or dreaming people. The cogitative faculty has a further important function in human thought: whereas the intellect is able to think in terms of universal concepts, the cogitative faculty combines particular concepts and thus aids the intellect.[10] The fourth internal sense is estimation (*wahm, aestimatio*), located in the rear part of the middle ventricle: it perceives intentions and forms judgments on their basis, such as the sheep's judgment that this wolf is to be fled. Memory, the last internal sense, is mainly responsible for the storage of intentions; it resides in the rear ventricle of the brain.

The number of internal senses becomes a matter of dispute in later medieval philosophy, since, unlike Avicenna, Averroes and Aquinas recognize only four internal senses (common sense, imagination, cogitative faculty, and memory): Averroes rejects the concept of an estimative faculty, whereas Aquinas makes estimation the animal counterpart to the human cogitative faculty, as will be apparent below.[11]

Avicenna further distinguishes two non-organic faculties: the practical intellect, whose main function is to govern the bodily faculties, and the theoretical intellect, which is concerned with grasping universal forms. A well-known doctrine of Avicenna's is his distinction between four theoretical intellects; in some places he calls them "powers," but in his most detailed descriptions it is obvious that the four intellects are four different relations (*nisab*) of the

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[10] Dimitri Gutas, "Intuition and Thinking: The Evolving Structure of Avicenna's Epistemology," in R. Wisnovsky (ed.) *Aspects of Avicenna* (Princeton, NJ: Princeton University Press, 2001) 1–38.

[11] Averroes, *Epitome of Parva naturalia*, ed. Blumberg, pp. 42–3, tr. Blumberg, p. 26 (Blumberg's translation of *quwwa mumayyiza* ("discriminative faculty") as "estimative faculty" is misleading); Averroes, *Commentarium magnum De anima* III.6 (ed. Crawford, pp. 415–16); Aquinas, *Summa theol.* 1a 78.4c. See also note 9 above.

theoretical faculty to its intelligible objects. They are therefore not faculties of the soul, but different states of the same intellect that represent different levels of actualization and of intellectual development (see also Chapter 23).[12]

THE ORGAN AND MEDIUM OF TOUCH

A question of great disagreement in faculty psychology up to the sixteenth century concerned the faculty of touch. The discussion was sparked by the fact that Aristotelian and Arabic theories of touch were based on different epochs of medicine, inasmuch as Aristotle did not yet know about nerves. (These were first distinguished from veins and arteries by physicians in Alexandria, who had carried out dissections in the third century BCE.) Aristotle had maintained that the organ of touch lies within the body, close to the heart, and that although we do not usually recognize a medium of touch, there exists one within us, our flesh (*De anima* II.11). In contrast, Avicenna and other Arabic philosophers, attempting to make Peripatetic philosophy compatible with the medical knowledge of their time, held that the organ of touch is the collection of nerves distributed throughout the body's flesh and skin, and that there is no medium at all. The arguments of the Arabic authors are partly anatomical, partly philosophical: if flesh is not accompanied by nerves, it does not have the sense of touch; there is touch not only in flesh, but also in bones and teeth; finally, objects of touch are dangerous or conducive to the life of the animal, which is why the entire body is the organ of touch and why the objects are in direct contact with the organ.[13]

Subsequent medieval philosophers were thus offered two rival theories. Among the scholastics, there were many who avoided the problem (or perhaps did not see it) and who simply quoted one of the two positions. Others argued for one side against the other, or else proposed a compromise, as did, for example, John Blund and the *Summa fratris Alexandri*.[14] In this discussion, Albert the Great stands out because he changed his mind on the issue. In his early *De homine*, he distinguishes between an ontological and an epistemological meaning of 'touch.' In the first sense, touch is what makes an animal soul an animal soul – it is its perfection; in the second sense, it is a faculty and a part of the soul (*De homine* 33.1 [ed. Cologne, XXVII.2: 246b]). When considered ontologically, as

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[12] Avicenna, *De anima* (*Shifāʾ*) I.5 (ed. Rahman, pp. 45–50; Van Riet, pp. 90–99); *Psychology (Najāt)* (tr. Rahman, pp. 32–5); see Dag Nikolaus Hasse, *Avicenna's De anima in the Latin West: The Formation of a Peripatetic Philosophy of the Soul 1160–1300* (London: Warburg Institute, 2000) pp. 177–83.

[13] Avicenna, *De anima* (*Shifāʾ*) II.3; Albert the Great, *De anima* II.3.34.

[14] Blund, *Tractatus de anima* XVI, ed. Callus and Hunt pp. 58, 60; Alexander of Hales *et al.*, *Summa theologica* II, pars I, IV.1.2.2.1. See Hasse, *Avicenna's De anima*, pp. 98–106.

a *perfectio*, the organ of touch is the entire body (in particular, nerves, flesh, and skin), and there is no medium. When considered epistemologically, however, as a *potentia*, flesh and skin are the first recipients of an impression from outside, which is then passed on to the nerve – this is a faint echo of Aristotle's original theory that flesh is the medium (ibid., 33.3 [252b–254a]). This – Albert's early position – can be reconciled with the Arabic and medical tradition, but not with Aristotle. Hence, he has to counter Aristotle's principal argument for the existence of a medium, which is that without a medium the organ would be in direct contact with the object, with the result that perception would not occur (*De an.* II.11, 423b20–1). It is a fundamental principle for Aristotle that all perception is perception of form, not of matter, and hence that a direct contact between organ and material object does not result in perception. Albert's answer is that only the nerves of the brain require a medium; the nerves distributed through the rest of the body are able to be affected directly and in a very subtle way by the object. In this respect, then, touch differs from the other senses (*De homine* 33.3, p. 253b). However, in his later *De anima*, Albert changes his mind: "Wishing both to save the truth and to give reverence to the father of the philosophers, Aristotle, we say that flesh is the medium of touch" (II.3.34, ed. Cologne, VII.1: 147a). Albert is aware that he has to reconcile this position with medical theory, and therefore he adds the qualification that teeth and nerves are "flesh-like" insofar as they have the same complexion as flesh. Albert's change of mind testifies to two developments in the second half of the thirteenth century: the growing authority of Aristotle, and the growing tendency to sacrifice the physiological part of faculty theory if it appears in conflict with philosophical teaching.[15]

In later medieval faculty theory, several attempts were made to reconcile Aristotle's theory of touch with later theories. One solution was to save Aristotle's view that the organ lies close to the heart by distinguishing between a primary organ of touch, the heart, and a secondary organ, the nerve.[16] Another strategy was to acknowledge the empirical incompleteness of Aristotle's theory and explain it in terms of the developing history of anatomy. Averroes first took this approach, in commenting on Aristotle's statement that the organ of touch lies "within" the body (423b23): "This is in accordance with what came out later (after Aristotle's death) through anatomy, namely that the nerves play a part in touch and movement. Therefore, what Aristotle knew in theory, later

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[15] See Mark Jordan, "The Disappearance of Galen in Thirteenth-Century Philosophy and Theology," in A. Zimmermann *et al.* (eds.) *Mensch und Natur im Mittelalter* (Berlin: De Gruyter, 1992) 703–17.

[16] D. N. Hasse, "Pietro d'Abano's 'Conciliator' and the Theory of the Soul in Paris," in J. Aertsen *et al.* (eds.) *Nach der Verurteilung von 1277* (Berlin: De Gruyter, 2001) 635–53, esp. pp. 641–5.

was apparent through experience" (*Comm. magnum de anima* II.108, p. 298). Averroes interprets the term "within" as referring not to something close to the heart, but to the as yet unknown nerves below the surface of the skin. Aristotle had "smelled" the right solution, even though "the science of dissection had not been perfected in his time," as Peter of Abano put it in the early four-teenth century (*Conciliator* diff. 42, ed. 1565, f. 64va). This historical solution to the doctrinal problem appears in a good number of *De anima* commentaries, whereas other authors, such as Thomas Aquinas, generally avoid discussion of physiological issues. In any event, the case of the nerves is a good indication of the willingness of medieval authors to consider medical and empirical arguments in the philosophy of the soul.

THE TRANSMISSION OF ODORS

The question of whether odors are transmitted materially or immaterially was discussed by many scholastic authors, from Albert the Great to Suárez. The origin of the discussion lies in a disagreement between Avicenna and Averroes, which in turn goes back to ancient disputes. Plato had maintained that all odor is vapor or mist (*Timaeus* 66e), which most likely is the position Aristotle was targeting when he refuted the theory that odor is smoky evaporation (*De sensu* 5, 443a21–b2).[17] The ancient commentary tradition paid considerable attention to the question and introduced empirical evidence, such as that vultures smell dead bodies in places too distant for material particles to have traveled to the perceiver.[18] In light of this ancient background, Avicenna distinguished between three different explanations of how odors reach the organ of smell: on the first account, small particles are issued from the odorous body and mix with the air; on the second, the medium is changed by the odorous body; on the third, there is transmission of effect without any change in the medium, the function of the medium being merely to make transmission possible.[19] The first two explanations are viable, he says, and are supported by evidence, such as that decaying apples shrink because they issue odorous particles, which suggests an evaporation theory. The third explanation is untenable, however, because smells may remain in the medium after the smelling object has disappeared. Avicenna acknowledges the objection that vultures fly to distant places for prey – for example, to a battlefield in a different country – and that material particles or

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[17] Aristotle's own view is not entirely clear; in *De sensu* 2, 438b20–7, he seems to embrace the smoky evaporation theory.

[18] Richard Sorabji, *The Philosophy of the Commentators, 200–600 AD: A Sourcebook* (Ithaca, NY: Cornell University Press, 2005) I: 47–52, III: 108–9.

[19] Avicenna, *De anima (Shifāʾ)* II.4, ed. Rahman, pp. 77–8; Van Riet p. 148.

alterations of the air cannot bridge such a distance, but he replies that vultures probably see rather than smell the dead bodies, because they circle at extreme heights.[20]

A different position was taken by Ibn al-Ṭayyib, a contemporary of Avicenna, who favors a position similar to Avicenna's third alternative: he claims that forms are imprinted upon the air as an immaterial (*rūḥānī*) impression. This must be so, he argues, because the air receives contrary properties (as when the images of a white and a black man are transmitted through the same region of air), whereas the corporeal impression of contrary properties is impossible.[21] Averroes also disagrees with Avicenna, without naming his opponent. He repeats the vulture argument, extending it to bees and tigers, and he concludes that odors exist in their medium in the same way that colors exist in the transparent medium – namely, with immaterial existence (*wujūd rūḥānī*; *esse spirituale*) – whereas they exist materially in the odorous body. He concedes that winds have an impact on the transmission of odors that they do not have on colors, but he responds that there are degrees of immateriality: colors are more immaterial (*rūḥānī*; *spiritualis*) than odors (*Comm. magnum de anima* II.97, pp. 276–8). Averroes also uses the argument from the reception of contrary qualities to argue more generally against the material existence of sensible forms in the medium.[22]

The scholastic tradition generally preferred Averroes's over Avicenna's theory, and often cited the vultures' long-distance sense of smell. Albert the Great, for instance, pointed out that the material theory in effect dispenses with a medium altogether, inasmuch as odors hit the organ directly (*De an.* II.3.25 [ed. Cologne VII.1: 135b]). This again has the problematic consequence that perception would result from direct contact between organ and object. On the other hand, an immaterial theory of transmission was difficult to reconcile with several pieces of evidence: the influence of wind, the shrinking apple, the hand that smells after touching something odorous, the interference of odors in the medium, and the odor's remaining in the medium after the disappearance of the odorous body. As a solution to this problem, Aquinas, John Buridan, and others argue that there exists evaporation, but only in the immediate vicinity of the odorous object. The remaining distance is bridged by an immaterial medium, which is affected qualitatively by the perceptible object.[23]

[20] Avicenna, *De anima* (*Shifāʾ*) II.4, ed. Rahman, pp. 78–81; Van Riet, pp. 148–54.
[21] See Cleophea Ferrari, "Der Duft des Apfels: Abū l-Faraj ʿAbdallāh ibn aṭ-Ṭayyib und sein Kommentar zu den *Kategorien* des Aristoteles," in V. Celluprica and C. D'Ancona Costa (eds.) *Aristotele e i suoi esegeti neoplatonici* (Naples: Bibliopolis, 2004) 85–106, esp. pp. 98–100. The argument from the reception of contrary qualities is already in Alexander of Aphrodisias; see Sorabji, *Sourcebook* I: 47–8.
[22] Averroes, *Epitome of Parva naturalia*, ed. Blumberg, pp. 23–4; tr. Blumberg, pp. 15–16.
[23] Aquinas, *In De anima* II.20; Buridan, *Quaest. de anima* II.20, ed. Patar, pp. 390–1.

THE ESTIMATIVE FACULTY

The estimative faculty was the most successful addition to Aristotle's faculty theory;[24] it was adopted by numerous writers in Arabic, Hebrew, and Latin. Medieval Latin authors were divided over a number of issues concerning the estimative faculty and its object, intentions, including whether estimation exists in animals only or in human beings as well; whether the intentions are derived from the perceived thing or from the processing of sensible forms; and, finally, what kind of judgments are made by estimation.

As to the first issue, Avicenna's contention that estimation is a faculty shared by animals and human beings was challenged by both Averroes and Thomas Aquinas. According to Averroes, although human beings and animals pass judgments about the intention of a specific image, human beings do so through the intellect, whereas animals employ a faculty without name, "which Avicenna calls estimation."[25] In the *Incoherence of the Incoherence*, Averroes claims that the assumption of an estimative faculty in animals can be dispensed with altogether, since all of its functions are performed by the faculty of imagination (tr. Van den Bergh, p. 336). Non-rational animals lack the cognitive faculty of human beings (he also calls this the "discriminative faculty"), which "separates and abstracts" individual intentions from the perceived images, for instance the intention of this individual man and the intention of this individual horse (*Comm. magnum de anima* II.63, pp. 225–6).

Aquinas further develops Averroes's line, relegating the estimative faculty to the animal realm. When animals perceive individual intentions, they are able to flee the harmful and pursue the useful. The estimative faculty is a faculty of instinct directly tied to actions: intentions are apprehended only insofar as they are the end or starting point of an animal's acting or being acted on. Human beings also compare individual intentions and apprehend the individual as existing under a common nature. In virtue of this, they cognize this human being as it is this human being, or this piece of wood as it is this piece of wood. This human faculty must thus be different from the animal estimative power, and Aquinas calls it the "cognitive power" or "particular reason." Only human beings have this faculty, because it operates in the vicinity and under the guidance of the intellect.[26]

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[24] See Deborah L. Black, "Estimation (*Wahm*) in Avicenna: The Logical and Psychological Dimensions," *Dialogue* 32 (1993) 219–58, and Hasse, *Avicenna's De anima*, pp. 127–53.

[25] Averroes, *Epitome of Parva naturalia*, ed. Blumberg, p. 39; tr. Blumberg, p. 24.

[26] *In De anima* II.13, *Summa theol.* 1a 81.3c. Robert Pasnau, *Thomas Aquinas on Human Nature* (Cambridge: Cambridge University Press, 2002) pp. 267–78.

Albert the Great, and like him many other writers of the thirteenth century, take the opposite, Avicennian standpoint. Estimation is a faculty shared by both animals and humans. The human faculty of estimation is sometimes helped and advised by reason to pursue this or to avoid that, but it is impossible for estimation to understand individual intentions as falling under a common notion. This is the work of reason. Estimation is a faculty intimately connected to imagination, since it grasps intentions in this and that image. In fact, it is the extension of imagination into the realm of action.[27]

A second issue involving the estimative faculty concerns the ontological status of intentions. Avicenna had maintained that "some faculties perceive the forms of the sense-perceptible object and some perceive the intentions of the sense-perceptible object."[28] The form of the wolf is exemplified by its shape and color, the intention of the wolf by its hostility. In Avicenna's theory, an intention is not a meaning assigned by the perceiver to a perceived form, nor something abstracted from a perceived form; it is itself an object of perception, an immaterial thing that accompanies a particular sense-perceptible form and that is always grasped in connection with such a form.[29]

Later writers advanced conflicting theories of intentions as objects of estimation. John Blund, for instance, around the start of the thirteenth century, takes Avicenna's position to one extreme, claiming that intentions are properties of an object of the world, such as the quality of the wolf that makes the sheep flee. What is received by estimation is not the intention – that is, the property itself (as in Avicenna's theory) – but rather an image or likeness of the intention (*Tractatus de anima*, ed. Callus and Hunt, pp. 68–71). This realist interpretation of intentions was not shared by other writers. For Averroes, intentions were intentions *of* images; that is, they were not objects of perception on the same level as images (or sensory forms), but something like the meaning that an image has for the perceiver. Human beings are able to separate and abstract the intentions from the images.[30] Albert the Great follows Averroes on this point, arguing that the estimative faculty extracts intentions from the apprehended

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[27] *De anima* III.1.2, ed. Cologne VII.1: 168; *De homine* 39.3, ed. Cologne, XXVII.2: 295b: "extensio phantasiae in praxim." Examples of authors who adopt the Avicennian standpoint are John Blund, William of Auvergne, Robert Grosseteste, Hugh of St. Cher, Roland of Cremona, John of La Rochelle, the *Summa fratris Alexandri*, Vincent of Beauvais, and Peter of Spain. The most elaborate discussions are in Blund, *Tractatus* XIX; John of La Rochelle, *Summa de anima* ch. 101; Peter of Spain, *Scientia libri de anima* (*Obras fil.* I: 319–23 [ed. 1941]).

[28] Avicenna, *De anima* (*Shifāʾ*) I.5, ed. Rahman, p. 43; Van Riet, p. 85.

[29] Avicenna, *De anima* (*Shifāʾ*) II.2, ed. Rahman, pp. 60–1; Van Riet, pp. 118–19; *Psychology* (*Najāt*), tr. Rahman, p. 39.

[30] *Comm. magnum De anima* II.63, ed. Crawford, p. 225; *Epitome of Parva naturalia*, ed. Blumberg, p. 39; tr. Blumberg, p. 24.

form. That is, intentions are the result of the internal processing of sensory forms. They are a product of abstraction.[31] In the ensuing scholastic discussions, both languages are adopted: that of intentions as objects of perception, as in Aquinas (*In de anima* II.13; *Summa theol.* 1a 78.4c), and that of intentions as products of abstraction, as in John Buridan (*Quaest. de anima*, ed. Patar, II.22).

A third issue concerns the content of estimative judgments.[32] The stock example of such a judgment, which was coined by Avicenna, is the sheep's judgment that the wolf is harmful and to be avoided. Like many other Arabic and Latin writers, Avicenna uses the term "judgment" in a wide sense that also covers non-linguistic acts. On this view, human beings and animals share several faculties that pass judgments, such as the external senses, common sense (for instance, "this moving thing is black"),[33] and estimation. The examples of such judgments are usually described in sentences, with the consequence that some writers, such as John Blund, were tempted to analyze animal judgments as consisting of several terms *(termini)* – for instance, 'this wolf' and 'to be fled' – in spite of the fact that animals do not have language (*Tractatus de anima*, pp. 68–71). Aquinas avoids this difficulty by distinguishing between "intellectual judgments" and "natural judgments." A natural judgment is prompted by instinct, which is the source of uniform actions: all swallows, for instance, form the natural judgment that nests should be made in a certain way (*Quaest. de veritate* 24.1c). In contrast, intellectual judgment is based upon inquiry and comparison, and is the source of free choice.

There were authors, however, who objected to the idea of animal judgments altogether. The background to this critique is a different notion of judgment that excludes non-linguistic judgments. William of Ockham thus maintains that the senses cannot judge, since judging presupposes the formation of a complex sentence – that is, a sentence composed of several terms, which can be assented to or dissented from.[34] Adam Wodeham shares this notion of judgment and infers from it that animals do not truly judge; they only appear to judge and to act like humans. The only form of cognition animals have is the non-complex, simple apprehension of something harmful or beneficial, which is directly followed by a certain reaction. This kind of cognition does not presuppose linguistic abilities.[35]

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[31] *De homine* 37.1, ed. Cologne, XXVII.2: 284b; *De anima* II.4.7, ed. Cologne, VII.1: 157.

[32] See Dominik Perler, "Intentionality and Action: Medieval Discussions on the Cognitive Capacities of Animals," in M. Pacheco and J. Meirinhos (eds.) *Intellect et imagination dans la philosophie médiévale* (Turnhout: Brepols, 2006) I: 73–98.

[33] Avicenna, *De anima* (*Shifāʾ*) IV.1, ed. Rahman, p. 165; Van Riet, p. 6.

[34] *Ordinatio* prol. 1.1 (*Opera theol.* I: 16); *Reportatio* III.2 (*Opera theol.* VI: 85–6).

[35] *Lectura secunda* prol. 4.2.8 (ed. Wood and Gál, I: 99–100).

PROPHETIC FACULTIES: IMAGINATION, POWER
OF THE WILL, AND INTUITION

Faculty theory served many explanatory purposes in medieval philosophy. This is particularly true for phantasms, the post-sensory images that were employed to explain memory, dreams, sensory illusions, and also the abstraction process, and that eventually lead to intellectual knowledge. With respect to these topics, medieval authors moved largely in step with Aristotle. They clearly departed when discussing prophecy, however, because Aristotle did not share the belief of many contemporaries in the possibility of divinely inspired dreams (*On Divination in Sleep* ch. 1). Several Arabic and Jewish authors give philosophical explanations of prophetic phenomena such as visions or the working of miracles as relying – partly or even entirely – on the extraordinary disposition of human faculties.

Al-Fārābī, for instance, followed by other philosophers such as Avicenna and Maimonides, maintains that an extremely powerful faculty of imagination is a necessary condition for prophetic visions. Some human beings are naturally predisposed to receive in their faculty of imagination either particular forms or sensory imitations of universal forms from the active intellect – that is, from the lowest of the celestial intelligences (*On the Perfect State* IV.14.8–9). Maimonides emphasizes that the cerebral organ of imagination needs to be in the best balance of humors for such reception, and that prophets are born with such a perfect material disposition (*Guide of the Perplexed* II.36). Avicenna, on the other hand, distinguishes between different kinds of prophecy that depend on different faculties of the soul: the imaginative faculty, will, and intellectual intuition (*hads*). The extraordinary disposition of these three faculties explains, respectively, visions, the working of miracles, and the complete knowledge of all universal forms that are in the active intellect. Avicenna thus uses faculty theory to develop a naturalistic explanation of prophecy. Neither the working of miracles nor intellectual prophecy (which consists in intuiting middle terms that automatically trigger the emanation of intelligible forms from the active intellect) involves divine assistance. Only visions require a contact between the imaginative faculty and the divine realm.[36] Maimonides's explanation is less naturalistic: God bestows prophetic knowledge on whom he chooses, with the exception that he cannot turn stupid people into prophets (ibid., II.32).

The contention that prophecy is dependent on the disposition of certain faculties of the soul would be criticized by Thomas Aquinas, although he does

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[36] *De anima* (*Shifāʾ*) IV.2 (on the imaginative faculty), IV.4 (on the power of the will), and V.6 (on intuition).

concede that a person may acquire a disposition for prophecy through repeated inspirations, and that such a person will more easily receive further inspirations. He also concedes that there is the phenomenon of "natural prophecy," which occurs when the faculties of imagination and intellect are put into contact with the celestial bodies and angels. This kind of prophecy does presuppose a specific balance of humors. Nevertheless, Aquinas maintains that natural prophecy ought to be distinguished from "divine prophecy," which is given by God and which is entirely dependent upon the divine will and not upon any form of preparedness.[37]

HOW THE SENSORY FACULTIES ASSIST
THE THEORETICAL INTELLECT

Medieval authors inherited from Aristotle various statements about the relation between the sensory and rational faculties that are difficult to reconcile. On the one hand, Aristotle stresses the separability of the intellect from the body and from the rest of the soul;[38] on the other hand, he maintains that "the soul never thinks without an image" (*phantasma*).[39] Avicenna holds that not all activities of the theoretical intellect are in need of phantasms, claiming that the sensory faculties bring to the intellect particular forms, which the intellect uses to abstract universal concepts and to form simply constructed premises based on empirical or transmitted data. These are the principles for the intellect's own activities of conception and judgment, for which the lower faculties are not needed, unless an additional principle needs to be obtained or an image retrieved. This happens more often at the beginning stages of intellectual life, but seldom with experienced and strong souls. In fact, if the intellect does not isolate itself from the lower faculties, they tend to divert it from its proper activity. Avicenna compares the lower faculties to a riding animal that is used to reach a certain place and afterwards becomes a useless instrument and a hindrance.[40]

Albert the Great follows Avicenna on this issue. In his commentary on Aristotle's *De anima*, he holds that all knowledge initially arises from the senses, but that once the intellect has acquired complete knowledge via the external and internal senses, it can be called the "acquired intellect" *(intellectus adeptus)* (see Chapter 23) and has no further need for the sensory faculties – just as someone

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[37] *Quaest. de veritate* 12.1 ad 1, 12.3c, 12.4c. See Hasse, *Avicenna's De anima*, pp. 154–74.
[38] *De an.* II.2, 413b25–7; III.4, 429a18–b6.
[39] *De an.* III.7, 431a16–17. Cf. III.10, 432a8–9.
[40] *De anima (Shifāʾ)* V.3, ed. Rahman, pp. 221–3; Van Riet, pp. 102–5; *Psychology (Najāt)*, tr. Rahman, pp. 54–6.

who has used a vehicle to arrive in his home country can then dispense with it. Moreover, he claims that only the acquired intellect is an intellect in the full sense, since it is fully devoid of matter, unchangeable, and immortal, because it is not changed or influenced by the lower faculties (III.2.19). The *intellectus adeptus* is the result of a conjunction between the possible intellect and the active intellect, which is a part of the soul whose light is not always connected with the possible intellect. This *intellectus adeptus* is the last stage of an intellectual ascension in this life, which results in God-like knowledge of all intelligible forms. Only in this universal mode of knowing does a human being reach perfect contemplative happiness (see Chapter 33).[41] In other works, Albert adds that phantasms are indispensable for knowing physical and mathematical objects, but are not necessary for knowing the immaterial objects of metaphysics, that is, the separate substances.[42]

Aquinas, in contrast, denies that knowledge of the essences of immaterial substances is possible in this life. He insists that our intellect always needs to turn toward phantasms (*convertere se ad phantasmata*), not only at the beginning of the thinking process, but also after the acquisition of knowledge. Evidence for this is that brain damage may impede all thinking processes, and that we are unable to conceive an intelligible form without phantasms representing examples of it. The human intellect differs from the angelic intellect in that it is joined to the body; its proper object, which is proportioned to its capacity, is the quiddities that exist in matter. Separate substances can only be known indirectly via a comparison with material substances (*Summa theol.* 1a 84.7; *In De anima* III.13).[43] To say that the intellect can dispense with the senses just as a traveler can dispense with a horse upon arrival is true only of the intellect in the afterlife, when the soul, being temporarily separated from the body, has a different mode of knowing (*Quaest. de veritate* 18.8 ad 4). But one reason Aquinas offers for insisting on the resurrection of the human body is that such intellectual activity apart from the senses is foreign to the soul's nature. The human intellect, being weaker than the angelic intellect, has complete and proper cognition only when working with the senses (*Summa theol.* 1a 89.1).

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[41] *De anima* III.3.11 (ed. Cologne VII.1: 221–2) and III.3.12 (ed. 7.1: 224b).
[42] Albert, *Metaphysica* II.2 (ed. Cologne XVI: 92–3); *Summa theologiae* II (ed. Borgnet XXXII: 196a). See Carlos Steel, *Der Adler und die Nachteule: Thomas und Albert über die Möglichkeit der Metaphysik* (Münster: Aschendorff, 2001) pp. 22–4.
[43] See Pasnau, *Thomas Aquinas on Human Nature*, pp. 284–95.

THE NATURE OF INTELLECT

DEBORAH L. BLACK

The views of medieval philosophers on the nature of the intellect were framed around the interpretation of Book III of Aristotle's *De anima*, especially Chapters 4 and 5, in which Aristotle investigates the nature of the power he calls *nous* – "mind" or "intellect." Medieval philosophers were also influenced by Neoplatonic sources such as Plotinus, Proclus, and Porphyry, as well as by the late Greek commentators on Aristotle's *De anima*, many of whom read Aristotle's theories through a Neoplatonic lens.

Aristotle's method for determining the nature of the intellect and other psychological faculties is to analyze the operations for which the faculty is responsible. Thus Aristotle begins his examination of the nature of intellect in *De anima* III.4 by noting that, like sense perception, the intellect's proper operation of thinking is a kind of process that involves a change or alteration on the part of the knower. Aristotle argues that the intellect must therefore be divisible in some way into two parts or aspects – one that is passive and receptive of the change, and another that is active, inasmuch as it produces the change in the patient. Among medieval authors, the former intellect came to be known as the "potential," "possible," or "material" intellect, and the latter as the "agent" intellect. Further developing this account of intellection as a process, Aristotle argues that before actually thinking, the intellect is potentially like its object; in the act of thought it is altered in a non-physical way, so as to become actually identified with that object. Thought, then, involves the cognitive assimilation or identification of the knower with the object known – a characteristic that on Aristotle's view thinking shares with sense perception.

Aristotle's account of intellection so far is thus entirely parallel to the account of sensation he develops in *De anima* II. But Aristotle and his medieval inter-preters held that intellectual thought constituted a form of cognition that is distinct from and superior to sense perception. In order to understand the nature of intellect fully, then, one must examine the properties of intellection that set it apart from sensation. In *De anima* III.4, Aristotle focuses on the fact

that all modes of sensation are limited in scope. Whereas each of the five senses is able to perceive only one type of quality – color in the case of vision, sound in the case of hearing, and so on – the intellect is subject to no such restrictions. From this Aristotle concludes that, unlike the senses, the intellect cannot have a predetermined nature of its own, and thus cannot be mixed with the body or operate through any organ. (This includes the brain and the heart, both of which Aristotle and medieval authors associate with the activities of sensation and imagination, and not directly with thinking.) Intellect, then, must be separable from the body in order to perform its proper activity, and for this reason Aristotle likens the intellect's state prior to actual thought to that of a writing tablet on which nothing has yet been written.

These characteristics, which are analyzed in III.4, pertain to the potential or material intellect – the passive and receptive element in thinking. In III.5, Aristotle briefly discusses the active or productive part of the intellect, which he describes as the power that "*makes* all things" rather than "*becoming* all things." It too is said to be separable from the body, unmixed with matter, and not susceptible to physical change. Aristotle tends, however, to resort to analogies to describe this part of the intellect, likening it first to art, and secondly to light. For this reason, III.5 has traditionally been considered the most cryptic and contentious chapter in Aristotle's *De anima*. In the medieval period, however, it was Aristotle's account of the material intellect in chapter 4 that became the main focus of controversy. In the Arabic and Jewish philosophical traditions, it was almost universally accepted that the agent intellect is a separate immaterial substance apart from individual human souls, and one for all human beings. In the later Christian tradition the agent intellect was generally viewed as a faculty within the individual human soul. Yet even philosophers who uphold this view, such as Thomas Aquinas, regard the alternative position, that there is only one agent intellect for all human knowers, to be fairly innocuous, on the grounds that it poses no real danger to Christian belief.[1] By contrast, the view that not only the agent intellect, but also the material or potential intellect, is one for all human beings, caused great consternation in the Christian West during the thirteenth and fourteenth centuries. This position, which originated with Averroes, effectively deprives humans of any individual intellective powers. For this reason, it was seen as a threat to the religious doctrines of individual immortality and punishment or reward in the afterlife, and it was accordingly subject to vigorous attack by Aquinas and many others.

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[1] Aquinas, *De unitate intellectus* 4 (tr. Zedler, n. 86); *Quaest. de anima* 5.

THE ISLAMIC TRADITION[2]

The Islamic philosophical tradition accepted the basic framework of Aristotle's agent and material intellects. But Islamic philosophers also recognized that in many of the Greek commentaries on the *De anima*, the term 'intellect' was often applied to the various developmental stages in the material or potential intellect's acquisition of knowledge. Al-Kindī and al-Fārābī each wrote a *Treatise on the Intellect*, translated into Latin in the twelfth century, which was devoted to explaining the different meanings that the term 'intellect' had in philosophical texts. An enumeration of the different senses of 'intellect' was also incorporated into the psychological writings of Avicenna and Averroes – both important sources for philosophical speculation in the Latin West. The basic scheme, which was adapted by individual philosophers to reflect their own theories of the intellect, recognized four meanings of the term 'intellect':[3]

1. The *agent intellect* discussed by Aristotle in *De anima* III.5. As noted above, this was universally understood in the late Greek, Islamic, and Jewish traditions to be a separate substance, not a faculty of the individual soul.
2. The *potential intellect*, discussed by Aristotle in *De anima* III.4. In the Islamic and Jewish traditions it was often labeled the *material intellect*, following the custom of the Greek commentator Alexander of Aphrodisias. Latin philosophers also used the term *possible intellect*. Occasionally this intellect is also called the *passive intellect*, but more often than not, especially in the Arabic tradition, the "passive intellect" is not an intellect at all, but rather an alternative label for the imaginative faculties: that is, the internal senses in general, and in particular the human manifestation of the imagination, known as the "cogitative power" (see Chapter 22).
3. The *habitual* or *speculative intellect* is the name given to the material intellect once it has acquired some basic knowledge and thereby developed a disposition or habit for thought.
4. The *acquired intellect* is generally the name given to the habitual intellect when it has perfected itself by acquiring all possible intelligibles. Many Islamic philosophers suggested that those few individuals who were able to attain this level of intellectual perfection would become akin to the separate celestial intelligences, and thereby be able to have direct knowledge of the closest such intellect to us – that is, the agent intellect. This direct acquaintance with the agent intellect was called "conjunction" (see Chapter 33).

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[2] For a comprehensive overview see Herbert Davidson, *Alfarabi, Avicenna, Averroes on Intellect* (Oxford: Oxford University Press, 1992).
[3] In addition to the treatises by al-Fārābī and al-Kindī, see Avicenna, *De anima* (*Shifā'*) I.5 (ed. Rahman, pp. 48–50) and *Psychology* (*Najāt*) tr. Rahman, pp. 33–5.

Al-Fārābī on the intellect

According to al-Fārābī, the material intellect is a power in the individual human soul, and the agent intellect is a separate substance that enables individual human knowers to abstract universal intelligibles from the sensibles they have experienced. Although Fārābī discusses the nature of the intellect in a number of writings, it is difficult to distil a consistent theory from these works. It seems reasonably clear that Fārābī views the process of acquiring intelligibles as one of abstraction, and that he believes that individual human beings require the help of the agent intellect in order to carry out the abstractive process. Unlike many later philosophers, however, Fārābī appears to make the material intellect itself the abstractive power, treating the agent intellect as providing the conditions – analogous to light in the case of vision – that enable the material intellect to abstract intelligibles for itself.[4] By the same token, Fārābī's writings do not make it entirely clear whether the abstractive activities of the material intellect are required for the acquisition of all intelligibles. While some works uphold a strong doctrine of the empirical origins of all intelligibles, including first principles and primary concepts,[5] other texts seem to imply that first principles are received by the material intellect directly from the agent intellect.[6]

Although Fārābī is the first philosopher in the Islamic tradition to articulate the notion of the acquired intellect that was to form the core of later philosophical discussions of human perfection, his views on this topic are also ambiguous. In his extant writings, Fārābī elaborates a doctrine of human perfection in which the potential intellect gradually becomes actualized and perfected through its accumulation of knowledge. If it reaches the stage of the acquired intellect, the potential intellect becomes completely actual; in effect, it attains a higher stage of being in which it becomes wholly immaterial – like the agent intellect itself, with whom it is now able to conjoin in a cognitive union. Fārābī makes it clear that conjunction is the condition on which the soul's immortality depends, since it is the only state in which the intellectual part of the soul loses its dependence on the body and thereby becomes eternal. Since very few people – presumably only philosophers – are able to attain the acquired intellect, it is clear that most human beings fail on Fārābī's view to attain immortality. Yet Fārābī seems to have become skeptical even of this limited doctrine of immortality in his later writings. In a lost commentary on Aristotle's *Nicomachean Ethics*, Fārābī is

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[4] *Treatise on Intellect*, ed. Bouyges, pp. 12–13; tr. J. McGinnis and D. C. Reisman, *Classical Arabic Philosophy: An Anthology of Sources* (Indianapolis, IN: Hackett, 2007), p. 71.
[5] *Harmony of Plato and Aristotle* secs. 49–50, tr. Butterworth, pp. 151–2.
[6] *On the Perfect State* IV.13.2–3.

reported to have rejected the possibility of conjunction with the agent intellect as described in his own earlier writings, on the grounds that it entails a contingent, perishable being – the human intellect – being transformed into one that is wholly immaterial, immortal, and eternal, something that he came to believe was a metaphysical impossibility.[7]

Avicenna: intellect as self-subsistent

While Avicenna's account of the nature of the intellect picks up the basic framework sketched by Fārābī, Avicenna's view of both the intellect's ontological status and its operations is unique within Arabic philosophy. Avicenna accepts the traditional distinction between the agent and material intellects, but he upholds a form of dualism that sees each individual material intellect as a subsistent substance in its own right, which, while dependent upon the body for its first *temporal* moment of origination, is from the outset *ontologically* independent of it. In a famous thought experiment that has come to be known as the "Flying Man," Avicenna attempts to highlight what he believes to be a basic, though often overlooked, intuition that each human intellect has: namely, that it is innately aware of itself as an individual entity, independently of all bodily experience and any awareness of things other than itself. In this experiment, Avicenna asks us to imagine ourselves born all at once but mature, so that our minds are fully functional but lack any past experience of the physical world. He also instructs us to imagine ourselves suspended in a void so that we cannot sense either our own bodies or the external world. Avicenna then asks whether a person who finds herself in such a state will nonetheless affirm the existence of her individual self, and he is confident that her answer to this question will be a resounding "Yes!" Although Avicenna recognizes that such an intuition does not fully demonstrate the intellect's immateriality, he believes it provides powerful evidence that the true nature of the individual is that of an intellect completely separable from matter.[8]

To provide more rigorous demonstrations of the intellect's immaterial nature, Avicenna focuses on a variety of different properties unique to intellectual thought, which in his view preclude the intellect's having a corporeal subject or instrument of any kind. Among the arguments that Avicenna advances to this effect are that intelligibles are by definition *abstract* – that is, that they prescind

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[7] See the report in Averroes, *Commentarium magnum de anima* III.36; see also Davidson, *Alfarabi, Avicenna, Averroes*, pp. 70–3.

[8] Avicenna, *De anima* (*Shifā'*) I.1; see also Michael Marmura, "Avicenna's 'Flying Man' in Context," *Monist* 69 (1986) 383–95.

from the very features that individuate material beings in the external world – and that they are *infinite*, since, as universals, they apply to a potentially infinite number of individuals. Because such properties are incompatible with material bodies, which are concrete and finite, the intellect must therefore be immaterial. Avicenna also appeals to the intellect's capacity for complete reflexive knowledge of its own acts and operations – something that is prohibited to material cognitive powers such as the senses, in virtue of the limitations imposed on them by their employment of bodily organs.[9]

Although Avicenna holds that the intellect is essentially immaterial and self-subsistent, he nonetheless recognizes that it relies on the body as both the occasion and the co-cause of its initial origination. Once in existence, however, and hence individuated, the human intellect is able to continue in existence even after the body has perished.[10] This limited-dependence view of the intellect–body relation is also reflected in Avicenna's account of knowledge acquisition. Unlike Aristotle, Avicenna denies that the acquisition of intelligibles can be explained *causally* as a process of abstracting universal essences from the sensible information preserved in the imaginative faculties in the brain. Although sensation and imagination are, in most cases, necessary preconditions for the acquisition of new knowledge – serving to explain why at any given time I acquire one kind of concept rather than another (*horse*, say, rather than *monkey*) – the abstract intelligible itself is produced in me through a direct *emanation* from the agent intellect.[11]

This account of knowledge acquisition as emanation has repercussions in a number of other aspects of Avicenna's theory of the intellect. The most well known and controversial of these for Avicenna's readers in the Latin West was his denial that there is such a thing as memory in the intellect itself. To support his point, Avicenna argues that thinking is just the actual and active presence of an intelligible or idea in an individual mind. If the mind is not actively thinking some intelligible, then there is no "place" where it can be stored. The notion of a storehouse is thus essentially physical, and as such incompatible with the incorporeality of intellect. Human beings do have memory, of course, but Avicenna locates this faculty in the brain. Thus, memory as such is a sense power and in no way part of the intellect. What, then, in the case of

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[9] *Psychology* (*Najāt*) chs. 9–10; *De anima* (*Shifā'*) V.2.

[10] *Psychology* (*Najāt*) chs. 12–13; *De anima* (*Shifā'*) V.3–4; see also Thérèse-Anne Druart, "The Human Soul's Individuation and its Survival after the Body's Death: Avicenna on the Causal Relation between Body and Soul," *Arabic Sciences and Philosophy* 10 (2000) 259–74.

[11] *De anima* (*Shifā'*) V.5 (ed. Rahman, p. 235). An alternative interpretation of the respective roles of emanation and abstraction in Avicenna is provided in Dag Hasse, "Avicenna on Abstraction," in R. Wisnovsky (ed.) *Aspects of Avicenna* (Princeton, NJ: Wiener, 2001) 39–72.

the intellect's operations, accounts for the phenomenon that we usually call memory? For Avicenna, intellectual memory is simply the habit through which individual minds become easily able to conjoin with the agent intellect and receive the emanation of intelligibles on demand. Conceived in this way, then, memory is a disposition to perform an activity – namely, thinking – at will, rather than a storehouse or sub-faculty within the intellect. To the extent that intellectual memory requires a storehouse of intelligibles, it is the agent intellect that performs that function in Avicenna's system, inasmuch as it is always actually engaged in intellectual contemplation.[12]

Averroes and the unicity of the material intellect

Averroes's account of the nature of the human intellect was among the most notorious and misunderstood philosophical doctrines to emerge in the medieval period. While Averroes himself strove to offer the most lucid and coherent account of the intellect that could be extracted from Aristotle's *De anima*, many later readers found the view that he put forward implausible, if not abhorrent.

It is somewhat misleading, however, to speak generally of Averroes's account of the nature of the intellect without reference to a particular period in his intellectual development. Averroes wrote a series of commentaries on the *De anima* over the course of his career, and his interpretation of the Aristotelian text evolved considerably over this period.[13] Like most of his Greek and Islamic

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[12] *De anima* (*Shifā'*) V.6 (ed. Rahman, pp. 245–8).

[13] Averroes wrote three types of commentaries on Aristotle: short commentaries or epitomes; middle commentaries or paraphrases; and great or long commentaries. He wrote commentaries of all three types on some of the most important works in the Aristotelian corpus, among them the *De anima*, *Physics*, and *Metaphysics*; he wrote short and middle commentaries on most others. In some cases a single commentary also exists in more than one version, as is the case with the *Epitome of the De anima*, which was revised several times to reflect Averroes's changing interpretations of the text. Scholars have generally assumed that the short commentaries were products of Averroes's youth, with the middle and long commentaries belonging to later stages in his career, although recently this picture has been called into question, especially with reference to the *De anima* commentaries. For a general overview of the various versions of Averroes's *De anima* commentaries, see Davidson, *Alfarabi, Avicenna, Averroes*, 258–314. For the competing views on the relative dating of the commentaries, see Herbert Davidson, "The Relation between Averroes' Middle and Long Commentaries on the De Anima," *Arabic Sciences and Philosophy* 7 (1997) 139–51, and Alfred Ivry, "Averroes' Three Commentaries on De Anima," in J. A. Aertsen and G. Endress (eds.) *Averroes and the Aristotelian Tradition* (Leiden: Brill, 1999) 199–216.

Many of Averroes's commentaries were translated into Hebrew and Latin in the medieval period, and some of the original Arabic versions do not survive, so in these cases we must rely on the medieval translations for our knowledge of Averroes's text. As a general though by no means universal rule, Hebrew translations were available of the epitomes and middle commentaries (this was the case for the *De anima*), whereas Latin translations were made of most of the great commentaries, and of the epitomes and middle commentaries where no great commentary existed. For an overview of Averroes's commentaries and the medieval and Renaissance translations of them, see Harry

predecessors, he spent little time worrying about the nature of the agent intellect, as discussed in *De anima* III.5, since he took it as obvious that Aristotle's brief remarks there could point only to a single being entirely separate from the individual. What concerned Averroes most was how to understand both the nature of the potential or material intellect described in III.4 and its relation to individual human knowers. His difficulties were compounded by the commentaries of Alexander of Aphrodisias and Themistius, which represented the two main interpretations of the text between which Averroes had to choose. In his early writings on the topic – most notably the first version of his *Epitome of the De anima* – Averroes followed the lead of Alexander of Aphrodisias, according to whom the potential or material intellect is simply a higher-order disposition within the imaginative faculty of each individual human knower that permits her to receive intelligibles. The difficulty with this position is that it seems incapable of fulfilling Aristotle's demand that the material intellect must be entirely unmixed with matter. At this early stage, Averroes resolved this problem by taking refuge in the fact that the imagination and its contents are psychological rather than physical entities; thus, they enjoy what Averroes calls a "spiritual" or "intentional" existence. This, Averroes believed, is sufficient to ensure that the intellect so construed is not material "in the way that bodily corporeal forms are material" (*Epitome*, ed. al-Ahwānī, p. 86). But since the material intellect ultimately depends on a bodily faculty as its subject, it too perishes along with the body.

Averroes gradually became dissatisfied with this rather weak account of the intellect's immateriality, and he moved towards a view that is closer to that of Themistius, in that it recognizes that both the material and agent intellects must be incorporeal in every respect. Yet despite its affinities to Themistius's view, Averroes's final position on the status of the material intellect is entirely novel with respect to the consequences that it entails for the individuation of the intellect. Revisiting the problem in his *Great Commentary on the De anima*, Averroes concludes that the material intellect, like the agent intellect, could in no way be a "body nor a power in a body," even in an attenuated sense. It must be totally separate and unmixed with matter in every way. Yet this posed a problem for the individuality of the intellect, since Averroes, like most medieval Aristotelians, holds that it is matter that differentiates one individual from another within a physical species. If, then, the material intellect is to be

Wolfson, "Plan for the Publication of a *Corpus commentariorum Averrois in Aristotele*," *Speculum* 6 (1931) 412–27, and "Revised Plan for the Publication of a *Corpus commentariorum Averrois in Aristotelem*." *Speculum* 38 (1963) 88–104. See also Gerhard Endress, "*Averrois Opera*: A Bibliography of Editions and Contributions to the Text," in Aertsen and Endress (eds.) *Averroes and the Aristotelian Tradition*, 339–81.

entirely immaterial, it cannot be "numbered according to the enumeration of individuals." Hence, just as there is only one agent intellect on which all human knowers depend in order to abstract universal intelligibles from sense images, so too there can be only one material intellect into which those intelligibles are received. Individual human beings "conjoin" with this material intellect via their imaginative faculties when they think, and it is the close connection between the material intellect and the imagination that produces the individual experience of thinking and that accounts for variations in knowledge from one human being to the next. Strictly speaking, though, individuals do not have personal intellectual faculties unique to them alone (*Commentarium magnum* III.4–5). This position is the notorious doctrine of the unicity of the intellect (or, less correctly, monopsychism, a misleading label since each individual does have her own *soul*) for which Averroes was much maligned throughout the centuries in the Latin West. As we shall see, readers of the Latin Averroes were principally concerned with the consequences of this position for personal immortality and moral responsibility (see also Chapter 34).

THE IMPACT OF ISLAMIC PHILOSOPHY IN THE JEWISH TRADITION

The views of Jewish philosophers up to the twelfth century generally followed the course set forth by al-Fārābī and, less frequently, Avicenna. Moses Maimonides largely adopts the Farabian account of the nature of the material intellect, treating it as "a faculty subsisting in a body and not separable from it," and thereby implicitly rejecting the Avicennian thesis that individual human intellects are self-subsistent (*Guide of the Perplexed* I.72). Maimonides also echoes al-Fārābī in his descriptions of how the intellect acquires knowledge and gradually perfects itself so as to attain the level of the acquired intellect. There are a few passages where Maimonides seems to espouse the Avicennian doctrine that intelligibles are acquired by us not through abstraction, but rather by a direct emanation from the agent intellect (ibid., II.4). Overall, however, Maimonides appears to be primarily a Farabian in his account of the intellect.

Jewish philosophers after the twelfth century were most influenced by Averroes's earlier reading of the *De anima*, as transmitted in the *Epitome* and *Middle Commentary*, in which the doctrine of the unicity of the material intellect is not yet present. The most detailed account of the nature of the intellect among later Jewish philosophers is found in Levi ben Gershom's (Gersonides) magnum opus, the *Wars of the Lord* – the entire first book of which is devoted to theories of the intellect and their implications for the immortality of the soul. Levi ben Gershom generally upholds the Alexandrian view that the material intellect is a disposition whose subject is the imaginative faculty in the soul (*Wars* I.5). He

rejects the views of Themistius, Avicenna, and many of his own contemporaries in the Christian tradition, who hold that the material intellect is both an incorporeal substance in its own right and a part of each individual human soul. Levi ben Gershom claims that this flies in the face of our empirical evidence that the human material intellect is subject to generation and corruption – physical characteristics that cannot be attributed to a substance that is immaterial, and hence eternal and incorruptible (*Wars* I.4).

MEDIEVAL CHRISTIAN PHILOSOPHY

The encounter with Avicenna

Although a direct translation from the Greek of Aristotle's *De anima* was available in the West, Christian authors up to the late twelfth and early thirteenth centuries generally preferred to follow the *De anima* portion of Avicenna's *Healing* (*Shifāʾ*).[14] One reason for this appears to have been the perceived compatibility between Avicenna's emanationist account of knowledge acquisition and the Augustinian doctrine of divine illumination, which led some thinkers to identify Avicenna's agent intellect with God himself (see Chapter 27). Others, however, were more critical in their appropriation of Avicennian and Aristotelian psychology into a traditional Augustinian framework. In particular, William of Auvergne raised a number of objections to the very notion of an agent intellect conceived along Avicennian lines (*De anima* V.6, in *Opera*, p. 122a). William argues that the doctrine of an agent intellect accords to individual human minds an utterly passive role in the acquisition of new knowledge, and he claims that passivity is a property that belongs exclusively to physical things (ibid., V.6, p. 121b). Although William appears to allow some role for divine illumination of an Augustinian sort in the intellect's acquisition of first principles, he is adamantly opposed to extending any such passivity into the intellect's subsequent operations (ibid., VII.4–6). Instead, William argues that the human intellect is an active and creative force capable of generating intelligibles for itself on the occasion of sensible encounters with the physical world (ibid., V.7, VII.8).[15]

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[14] For an overview of the reception of Avicenna, see Dag Hasse, *Avicenna's* De anima *in the Latin West: The Formation of a Peripatetic Philosophy of the Soul 1160–1300* (London: Warburg Institute, 2000).

[15] See John Marenbon, *Later Medieval Philosophy (1150–1350): An Introduction* (London: Routledge, 1987) pp. 110–15. William's *De anima* has been translated by R. J. Teske (Milwaukee, WI: Marquette University Press, 2000).

Latin Averroism

With the translation of Averroes's *Great Commentary on the De anima* in the early thirteenth century, Latin philosophers now had a comprehensive interpretation of Aristotle's entire *De anima*, and they thus began to turn their attention to the Philosopher's own text. While Averroes's aid in interpreting the difficult chapters on the intellect was initially welcomed by readers struggling to understand Aristotle, the implications of Averroes's teachings on the unicity of both the agent and material intellects soon stirred up controversy. A number of arts masters at the University of Paris – often referred to as "Latin Averroists" or "radical Aristotelians" – began to promulgate Averroes's interpretation of the *De anima*. This in turn provoked reactions from concerned theologians, who responded both by criticizing Averroes and his interpreters and by offering their own alternative accounts of Aristotle's theory of the intellect.[16]

The best-known Averroist of the thirteenth century was Siger of Brabant, the Parisian arts master who wrote a series of works on the nature of the intellective soul. Over time, Siger's views evolve from a strict and unapologetic Averroism to a position similar in many respects to that of his staunch contemporary critic, Aquinas. In his early *Questions on De anima III*, Siger describes the possible intellect as one for all human beings, though it enters the individual soul from outside and forms a unity with it. The union of intellect and individual is not a substantial union, however, since the intellectual soul functions merely as the *mover* of the body, performing the operation of thinking within the body by making use of its sense images. Siger's radical views were soon subjected to a virulent attack by Aquinas in his *On the Unity of the Intellect against the Averroists.* In response to Aquinas, Siger begins to develop a more nuanced position, and in later works he makes an explicit attempt to address the criticisms of both Aquinas and Albert the Great. In *De anima intellectiva*, Siger continues to defend Averroism as a legitimate interpretation of Aristotle's *De anima*, but he now declares his personal allegiance to Christian beliefs where they conflict with Aristotelian philosophy.[17] Siger accepts that the intellective soul is indeed the form and perfection of the body, and, as such, the principle through which all of a person's actions – including intellectual understanding – are performed. But he denies that the intellective soul is united to the body by constituting its *substantial* form. Instead, the union of the intellect with the body is a purely

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[16] For a brief overview see Fernand van Steenberghen, *St. Thomas Aquinas and Radical Aristotelianism* (Washington: Catholic University of America Press, 1980).

[17] *De anima intellectiva* 3, ed. Bazán, p. 87. For the response to Aquinas and Albert, see ibid., pp. 81–4. Portions of this treatise are translated in John Wippel and Allan Wolter, *Medieval Philosophy* (New York: Free Press, 1969).

operational one: the intellect and the body form a sort of team inasmuch as they "cooperate in a single task" of understanding. Siger refers to the intellect in this text as an "intrinsic agent" rather than an external mover (*De anima intellectiva* 3, pp. 84–5), but he remains unable to offer a philosophical account of how such an intellect could be "multiplied with the multiplication of human bodies," so as to avoid Averroism (ibid., ch. 7).

Later still, however, Siger distances himself entirely from his earlier Averroism and moves very close to Aquinas's account of the intellect, holding that each human being has only one substantial form, through which she is able to perform all her operations, including intellectual understanding. Siger now rejects the unicity of the intellect as both heretical and irrational, and he declares that it makes no difference what either Averroes or Aristotle held, since they were only human and thus subject to error.[18]

The Thomistic alternative

Aquinas was a fierce critic of Averroes's reading of the *De anima*, which he believed was unable to account for the basic fact that "this individual human being understands."[19] In a favorite example, Aquinas likens the individual on Averroes's scheme to a wall whose color is seen by the eye. Just as we would not say that the wall itself "sees" because its color is seen, neither can we say that the human being "understands" because she provides images to the material intellect. At best she is a passive and inert *object* of understanding, not a dynamic, knowing *subject*.[20]

Aquinas's alternative is to treat both the material and agent intellects as faculties within the human soul.[21] The material (or, as Aquinas prefers, "possible") intellect receives and understands the intelligibles which the agent intellect has abstracted from the individual's sense images. Intellection itself, however, is an entirely self-contained and autonomous process. While this solves the problems that Aquinas believes are associated with Averroism, it is still necessary to explain how these two intellectual faculties can be individuated while still remaining immaterial. For Aquinas, the fact that the intellect is able to perform its proper operations of abstraction and thinking without making use of a bodily organ is sufficient to meet Aristotle's immateriality condition. That the intellect needs no organ to think is, in turn, explicable because the human intellective soul is

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[18] *Quaest. super librum de causis* qq. 26–7.
[19] *Summa theol.* 1a 76.1; *In De anima* III.7 n. 690; *De unitate* 3, tr. Zedler, nn. 63, 65, 66.
[20] *Summa theol.* 1a 76.1; *De unitate* 3 n. 66; *Quaest. de anima* 2c; *In De anima* III.1 n.·694; cf. *Summa contra gentiles* II.59.
[21] *Summa theol.* 1a 76.1–2, 79.1–5; *Quaest. de anima* 3–5.

a "form of matter" while not being merely a "material form" (*De unitate* 3, nn. 83–4). That is, the human intellectual soul is subsistent in itself (as it was for Avicenna) and capable of existence independently of the body, and so it is not entirely immersed in matter.[22] Nothing, however, prevents the intellective soul from also functioning as a "form of matter" both insofar as it gives being to the body and insofar as it is dependent on the body to individuate it and to aid it in the operations of sensation and imagination on which intellection also depends.[23] Without the body, then, the operations of the intellective soul and human nature itself are imperfect and incomplete. Thus, while the human soul can exist separately from the body, Aquinas makes it clear that its cognitive operations in such a state will be diminished (*Summa theol.* 1a 89).

The decline of the Aristotelian framework

After Aquinas, most medieval philosophers continue to view both the agent and potential intellects as faculties within the individual soul. John Duns Scotus, for instance, accepts the traditional arguments for the incorporeality and immateriality of the intellect, but he notes that the claim that the intellective soul is "immaterial" is ambiguous, and in some of his writings he suggests that ambiguity may block our ability to infer that the intellect has a natural capacity to exist without the body.[24] Questions increasingly arise during this period, moreover, concerning whether these two intellects are in fact separate faculties. New models of the nature of intellectual cognition and the operations that comprise it suggest that the intellect might be simple, rather than comprised of distinct active and receptive faculties. Although Scotus preserves the Aristotelian framework of the two intellects, others, such as Peter of John Olivi and William of Ockham, question the distinction. In particular, they question the traditional rationale for positing an agent intellect: namely, the view of knowledge acquisition as a form of abstraction.[25] Olivi takes issue with this picture because he questions the very capacity of physical bodies to affect an

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[22] *Summa theol.* 1a. 75.2; *Quaest. de anima* 1–2; see also Bernardo C. Bazán, "The Human Soul: Form *and* Substance? Thomas Aquinas's Critique of Eclectic Aristotelianism," *Archives d'histoire doctrinale et littéraire du Moyen âge* 64 (1997) 95–126.

[23] For the dependence of the intellect on the operations of the bodily faculties of sense and imagination, see *Summa theol.* 1a 84.6–7.

[24] See *Ordinatio* IV.43.2 (*Philosophical Writings*, pp. 133–62) and *Quodlibet* 9; see also Richard Cross, "Philosophy of Mind," in T. Williams (ed.) *The Cambridge Companion to Duns Scotus* (Cambridge: Cambridge University Press, 2003) pp. 263–7.

[25] See Robert Pasnau, *Theories of Cognition in the Later Middle Ages* (Cambridge: Cambridge University Press, 1997) pp. 150–1, 176–7.

immaterial mind.[26] Ockham's nominalist rejection of the reality of shared essences or common natures (see Chapter 48), on the other hand, entails that there is nothing in particular for an agent intellect to abstract from. When we speak of that intellect's role as an abstractive agent, then, we must understand this not as a transformative or extracting operation, but rather merely as the act of forming universal concepts on the basis of prior intuitive acts of cognition in which the intellect directly apprehends the individual existent.[27]

Since Ockham has less invested in the traditional roles assigned to the agent and material intellects than his predecessors, it is not surprising that he takes a more dispassionate stance towards Averroism than they did. In a short question devoted to the topic of Averroes's views on the possible intellect, Ockham plays devil's advocate by offering a series of what he regards as plausible (although not demonstrative) arguments to show how the Averroist claim that the intellect is related to the body as its *mover* rather than as its *form* can be "salvaged."[28] Ockham continues to deny Averroism from the perspective of the faith, and he also rejects on rational and empirical grounds Averroes's claim that if the intellect is only the mover of the body, then there can be only *one* intellect for all human beings. This, Ockham says, is impossible, since it would entail a single subject, the separate intellect, experiencing contrary states such as knowing and ignorance simultaneously, in virtue of its multiple relations to individual human knowers (*Quodlibet* I.11). So for Ockham too the individuality of the intellect ultimately remains intact, even though the traditional Aristotelian structure of the mind is now deemed superfluous.

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[26] Olivi, *Summa* II.72, ed. Jansen, III: 27–30.
[27] *Reportatio* II.13 (*Opera theol.* V: 304–10); see also *Quaest. variae* 5.
[28] *Quaest. variae* 6 art. 7; see also *Quodlibet* I.10.

24

PERCEPTION

A. MARK SMITH

The psychological ruminations of Plato and Aristotle gave rise to two inter-
pretative streams that together shaped the course of later medieval theories
of perception. The most important of these was the Arabic tradition, which
profoundly influenced scholastic thought. Less significant, but still influential,
were early Latin accounts of perception. Out of this legacy, scholastic Latin
authors developed rich and varied accounts of the physiological and psycholog-
ical mechanisms of perception.

THE GRECO-LATIN INTERPRETIVE STREAM

Early Latin accounts of classical Greek theories of perception were channeled
through such encyclopedic thinkers as Pliny, Macrobius, and Martianus Capella,
as well as Augustine and Boethius. Perhaps the most important among these
channeling agents was Calcidius, whose fourth-century Latin translation of the
first half of Plato's *Timaeus* – complete with commentary – proved enormously
influential on the study of natural philosophy from the late Carolingian period
to at least the mid-twelfth century.

    Hugh of St. Victor's *Didascalicon* offers a good example of how this interpre-
tive stream had developed by the early twelfth century to combine elements
from Plato's account of perception with second-hand knowledge of Aristotle's
theory. Hugh follows Aristotle's threefold division of the soul according to its
fundamental capacities, beginning with nutrition, passing through sensation,
and culminating with reason in humankind (I.3). The link between sense and
reason, Hugh explains, is the imagination, which "is sensuous memory made
up of the traces of corporeal objects inhering in the mind" (II.5, tr. Taylor,
p. 66). Sensation, for its part, "is what the soul undergoes in the body as a
result of qualities that come to it from without" (II.5, p. 67). In order to get the
"traces of corporeal objects" necessary for cognition, the soul "rushes out toward
the visible forms of bodies, and . . . draws them into itself through imagina-
tion." This notion – that the soul somehow "rushes out" to apprehend sensible

objects – is consonant with a standard Greco-Roman assumption, one of whose most significant proponents was Plato, that vision is accomplished by the emission of visual flux from the eye. That such extramission theories were in fact current even before the writing of Hugh's *Didascalicon* is clear from Anselm's account of vision in chapter 6 of the *De veritate*, where he explains how sight is deceived about the color of something it sees behind colored glass because it takes on the color of the glass as it passes outward through it.

In drawing visible forms into itself, according to Hugh, the soul is "penetrated by . . . hostile sense experience" and thus the soul is "cut away from its simplicity" (II.3, p. 64). Only by removing itself from the distractions of sense experience and "mounting from such distraction toward pure understanding" can the soul gather itself "into one," thereby becoming "more blessed through participating in intelligible substance" (ibid.). This ambivalence toward sense perception displays Hugh's Platonist leanings: on the one hand, sense perception is an aid to understanding; on the other, it is a snare that can divert the intellect from its proper upward gaze toward the ideal.[1]

THE GRECO-ARABIC INTERPRETIVE STREAM

In contrast to the Greco-Latin tradition, the Greco-Arabic stream was primarily Aristotelian in emphasis, with particular attention paid to the *De anima* and *De sensu et sensato*. Passing through Alexander of Aphrodisias, Porphyry, Themistius, and various other late antique Greek commentators, this interpretative stream culminated in a host of Arabic thinkers, among whom Ibn al-Haytham (Alhacen), Avicenna, and Averroes loom especially large.

Over the course of this transmission, several key suppositions came to the fore – most harking directly back to Aristotle. First, following *De anima* II.6, each of the five senses was associated (at least in principle) with a unique, proper sensible: sound with hearing, color with sight, savor with taste, and so on. (As in Aristotle, touch presented something of a problem insofar as it is susceptible to apparently unrelated data, such as hotness, smoothness, and hardness [see Chapter 22].) Second, certain ancillary sensibles, such as size, shape, and location, were understood to be grasped in an accidental way by more than one sense. These sensibles are therefore "common" in being shared (see *De an.* 418a18–19). Third, primitive, psychologically unmediated sensation was

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[1] For another example of perception analysis within the Greco-Latin interpretive stream, see William of Conches, *Dragmaticon philosophiae*, tr. Ronca and Curr, pp. 150–73. Although both Hugh's and William's accounts allude to Aristotelian ideas (gotten at second-hand), both show clear Platonist leanings. For an overview of the Greco-Latin interpretive stream slanted toward vision, see David Lindberg, *Theories of Vision from Alkindi to Kepler* (Chicago: University of Chicago Press, 1976).

understood to be veridical; error in sense induction was blamed on perceptual or intellectual misjudgments of the relevant sense data (see *De an.* 428b18–24). Finally, all sensation was seen to be mediated both by a material substrate – air in the case of sight and hearing, flesh in the case of touch, and water in the case of taste – and by a qualitative representation of the sensible attribute that existed in the medium independently of the corporeal object (*De an.* 419a12–b2). According to the Greco-Arabic tradition, it was not the corporeal object but rather this representation that brings about the appropriate sense impression in a perceiver.[2]

The Arabic tradition also accommodated Aristotle's account of sense perception to Galenic anatomy and physiology by abandoning the perceptual role Aristotle had given to the heart, and identifying the brain as the main locus for the perceptual process. The sensory soul, on this account, is constituted from the brain's three-fold ventricular structure and the animal spirit (Galen's *pneuma psychikon*) that infuses it. Out of this accommodation of Galen and Aristotle emerged a perceptual and cognitive model based on a series of "internal senses" laid out according to specific psychological faculties, the *sensus communis* being located with the faculty of imagination (Aristotle's *phantasia*) in the frontmost cerebral ventricle, the estimative faculty and reasoning faculty in the middle ventricle, and the faculty of intellectual memory in the occipital ventricle.[3] (See Chapter 22 for further details.)

There was also an effort in this tradition to explain the mechanism by which such 'objective' qualities as the color, hardness, and sweetness inhering in physical bodies could be transformed into 'subjective' qualities appropriate for apprehension by the perceptual system. Averroes, for instance, posited a change from "material existence" in the object to "spiritual existence" in the medium so as to accommodate the sensible data to the sensing subject. Avicenna, on the other hand, had introduced a distinction between "form" (*ṣūra; forma*) and "intention" (* maʿnā; intentio*) to explain how sense data convey information to the sensing subject. On Avicenna's usage, the sensible qualities of a thing – its color, odor, shape, and so on – are the forms of an object and are grasped by the five external senses. On the basis of these sense data, the internal senses are able to grasp further features of an object, "intentions" that are not immediately perceptible. In this way, a sheep not only sees a grey patch of color, but sees a threatening

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[2] The notion that sensation involves an "impression" of sorts underlies Aristotle's seal-and-wax analogy in *De anima* III.12, 434b29–35a10.

[3] For the classic account of the Arabic model of internal senses, see Harry Wolfson, "The Internal Senses in Latin, Arabic, and Hebrew Philosophical Texts," *Harvard Theological Review* 28 (1935) 69–133. For the source of this model in Aristotle, see *De anima* III.1–7.

wolf (see Chapter 22). This philosophically powerful distinction would later be widely invoked in both the Arabic and Latin traditions.

The resulting model of sense perception and cognition emphasizes the empirical rather than the innatist nature of both processes and takes form roughly as follows. First, the object sends its form through the medium to the perceiver – a form that would come to be known in the Latin tradition as a "species." (The Latin word is generally left untranslated in modern discussions, and should be distinguished from the sense of "species" as a taxonomic kind.) Each sense organ is, in turn, affected by that species according to a particular intentional aspect, such as color, texture, or taste. The ensuing sense impressions are conveyed from each organ through the nerves to the *sensus communis* at the forefront of the brain, where they are combined into a composite intentional representation of the object. This representation comprises all of that object's perceptible attributes, including not only the proper sensibles (color, taste, feel [including hot, smooth, hard], odor, and sound) but also the common sensibles (such as size, shape, and motion). Remanded to the imagination for short-term memory, this composite form – which later comes to be known as the "sensible species" – constitutes an intentional representation of the object in all its physical and spatial particularity. As such, it stands proxy for the object itself and, bearing a host of ulterior intentions at the intelligible level, provides the wherewithal for a cognitive evaluation of what kind of object it is.

Underlying this model are three cardinal notions, the first of which is that sense perception is a complex process, not a singular event. As such, it unfolds in stages, each one at a higher level of abstraction and immateriality than its predecessor. During the initial stage, an object's species is received by the medium and conveyed through it to the sense organs. The second level, less material and accordingly more spiritual, involves the reception of that species by a given sense organ and the particular impression it makes on that organ. An object's color, for instance, is transformed in this stage from a wholly physical color effect in the aerial medium to a visible color effect in the eye itself. Finally, at the third and most spiritual level, the particular sense impressions aroused in each of the sense organs are passed neurally to the *sensus communis*, where they are combined with the common sensibles into a composite representation of the original object. Although the analysis depends critically on the process's becoming progressively more spiritual and less material, it is difficult to say just what those terms mean in this context, since the whole process takes place in the physical sense organs and the brain.[4]

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[4] This analysis of sense perception depends on the process becoming progressively more spiritual and less material, but it is worth noting that the whole process takes place in the physical sense organs

The second cardinal notion that underlies this model is that species represent their objects to the senses and to the soul by being somehow like their objects, in the way that images are somehow like what they represent (see Chapter 25).[5] The third cardinal notion is that, *pace* Plato and Hugh of St. Victor, sense perception is not inherently deceptive. Properly regulated by reason, it is veridical. In fact, without the data of sense perception, reason has little or nothing to reason about and, therefore, no meaningful path to understanding.

SCHOLASTIC PERCEPTUAL THEORY

The flood of Aristotelian texts and corresponding Arabic commentaries that inundated Western Europe in the twelfth century (see Chapter 4) carried with it the Greco-Arabic interpretive stream just discussed, and within a matter of a few decades that stream had all but overwhelmed its Greco-Latin counterpart. By the second half of the thirteenth century, in fact, the internal-sense model of faculty psychology had taken such firm root within the scholastic community that it became the canonical framework for the analysis of perception. Accordingly, most subsequent analyses were cast in the language of proper and common sensibles, external and internal senses, abstraction, forms or species, material and spiritual existence, intentions, and psychological powers.

So much, at least, is true at a general level. At the level of specific application, however, disagreements about the details of analysis abounded. Rather than dwell on such disagreements, let us take as a more or less representative example Roger Bacon's analysis of visual perception in the *Perspectiva*.[6] Composed in the 1260s and originally appearing as Part 5 of the *Opus maius*, this work is based upon a remarkably wide variety of classical and Arabic sources, including Euclid's and Ptolemy's *Optics*, al-Kindī's *Optics* and *De radiis stellarum*, Aristotle's *De anima* and *De sensu*, and Avicenna's *De anima*. But the cardinal source for Bacon's analysis is Ibn al-Haytham's *De aspectibus*, the late twelfth-century Latin version of his *Kitāb al-Manāẓir* (*Book of Optics*), which was composed in Arabic around 1030. So influential was this treatise that it inspired not only Bacon but also a train of subsequent thinkers, Witelo and John Pecham in particular, whose works put special emphasis on the geometrical analysis of light and sight, and

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and the brain. For discussion (focused on the Latin tradition), see, e.g., Robert Pasnau, *Theories of Cognition in the Later Middle Ages* (Cambridge: Cambridge University Press, 1997), and Myles Burnyeat, "Aquinas on 'Spiritual Change' in Perception," in D. Perler (ed.) *Ancient and Medieval Theories of Intentionality* (Leiden: Brill, 2001) 129–53.

[5] As Aristotle himself asserts, we never think without images (*De anima* III.7).

[6] For a study of this work that includes the critical Latin text and an English translation, see David Lindberg, *Roger Bacon and the Origins of* Perspectiva *in the Middle Ages* (Oxford: Clarendon Press, 1996).

formed the core of the Perspectivist tradition that held sway within scholastic circles from the late thirteenth century to the end of the sixteenth.[7]

Bacon opens the *Perspectiva* with a chapter extolling sight above all the other senses because it reveals the most about the world and, therefore, about God's providential order (I.1.1, 3). Having thus justified his focus on vision, Bacon turns in the next few chapters to a description of the perceptual system in the brain, both with respect to the internal senses seated in its ventricles and with respect to the basic sensibles appropriate to them. Altogether, he writes, there are twenty-nine of these sensibles, nine of which are proper to the individual senses: "vision concerning light and color; touch . . . hot, cold, wet, and dry; hearing . . . sound; smell . . . odor; and taste . . . flavor" (I.1.3, 9). The remaining twenty sensibles comprise such things as shape, size, distance, and spatial orientation, as well as corporeity, beauty, and ugliness – all of which are grasped by the *sensus communis* at the front of the brain.

According to Bacon, the mediating entities in this process are the forms or species that represent external sensibles. Take, for instance, a luminous or illuminated object surrounded by a continuous transparent medium, such as air. The surface of that object can be resolved into an indefinite number of infinitesimally small spots of light (*lux minima*). Each such spot is the minimum quantity capable of transmitting its species (*lumen*)[8] through the medium in a train of replications that starts with the spot-thick shell of the medium immediately surrounding the spot of *lux minima* and continues outward through a series of successive, ever-expanding shells. During this process, which Bacon calls "multiplication," the *lumen* at any point of the medium replicates itself in the spots immediately surrounding it as if it were *lux*, and the same holds for every other spot in the train of replications. The medium as a whole thus undergoes a qualitative change from "transparent" to "luminous" without thereby undergoing the physical effect of illumination appropriate to opaque bodies.

Bacon is adamant that these mediating species cannot exist without a material substrate of some kind, because he vehemently opposes the notion that species assume spiritual existence in media. On the contrary, he holds that such species have corporeal existence (*esse corporeale*) insofar as they require a material medium within which to subsist. According to Bacon's model, then, the light from any luminous or illuminated object is physically propagated through the medium in the form of a sphere, each of whose radii constitutes a rectilinear

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[7] For an overview of the Perspectivist optical tradition and its development, see Lindberg, *Theories of Vision*.

[8] Following Arabic usage (that of Avicenna in particular), Bacon draws a clear distinction between the light that is inherent in luminous sources (*lux*) and the physical effect of that light in transparent media (*lumen*).
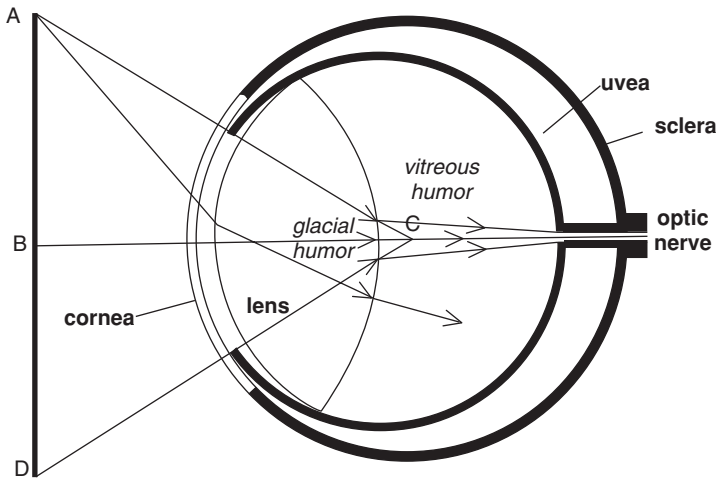
Figure 24.1

trajectory or ray. The same holds for every other attribute of the object, includ‐
ing not just sensible qualities like color but even the substantial nature itself of
the object: in each case, the species of that attribute is radiated in all possible
directions through the surrounding medium. It seems, therefore, that the species
of the object as a whole – the entire extended visual image – is apprehended
according to the aggregate of species emanating spot by spot from it.

   How the physical impressions of light and color radiated to the eye through
the air are transformed into visual impressions is a matter of the eye's anatomical
and physiological structure, as illustrated in Figure 24.1. Bacon follows Ibn al-
Haytham in supposing that the eye as a whole forms a perfect sphere contained
by the scleral tunic, all of which is opaque except for the transparent cornea
at its front. Nested within this sphere is the opaque uveal sphere, which is
perforated in front by the pupil, and whose center is anterior to that of the eye
as a whole. Enclosed within the uveal sphere is the lens, which is filled with
glacial humor. Its anterior surface is flattened so as to be perfectly concentric
with the cornea. A thin membrane at the rear of the lens and ahead of the
eyeball's center differentiates it and the glacial humor filling it from the more
optically dense vitreous humor occupying the posterior portion of the uveal
sphere. At the very rear of the eyeball, finally, lies the opening of the hollow
optic nerve. From its juncture with the eyeball, this nerve winds back toward
the brain to meet its counterpart from the other eye at the optic chiasma. The
two nerves then bifurcate to join the brain on separate sides, where they open

into the first cerebral ventricle, whose anterior part has two branches. Being hollow, the optic nerves allow the animal spirit infusing the cerebral ventricles to flow into the eye in the form of visual spirit. Reaching the lens at the front of the eye, this spirit endows the lens with a special sensitivity to light and color (*Perspectiva* I.2.1–I.4.4).[9]

When the eye faces a luminous or illuminated object, it is bombarded from all sides by the light and color reaching it from every point on that object's surface. Because light and color are naturally apt to mingle, what actually reaches the eye is luminous color rather than light and color distinct from one another. If the eye were to sense all of that incoming radiation, the result would be a sheer chaos of overlapping color impressions. But the eye is providentially designed to make sense of that chaos, inasmuch as the anterior surface of the lens selects only those species of luminous color radiating to it along the perpendicular. This happens in virtue of both its optical and its sensory properties. First, because of its optical structure, only that radiation passes through the lens's surface without being refracted, and only that radiation continues in a direct line toward the center of the eye – all other radiation is diverted from that point by refraction. Thus, if line ABD facing the eye in Figure 24.1 represents a visible object, the rays originating at points A, B, and D that strike the lens orthogonally will pass straight toward centerpoint C of the eyeball, whereas any ray that strikes the surface of the lens obliquely will be refracted out of the way. In addition, the eye's special sensitivity permits the lens to be sensibly affected only by those species of luminous color that strike it directly along the perpendicular, because they make the most forceful impression. The rest, impinging at a slant, are too weak to be sensed (ibid., I.6.1–2).[10]

On the basis of this selection process, the lens abstracts a point-by-point representation of the object from all the species of luminous color reaching it from the object's surface. This representation (which constitutes what we might call the "visible species") continues in punctiform order toward the center of the eyeball, where all the individual species comprising it would, if unimpeded, converge to form a cone of radiation with its base on the visible object. Such convergence never occurs, though, because the rays along which the individual species pass are refracted at the interface between the glacial and vitreous humors, and thereby funneled into the hollow optic nerve in proper upright and punctiform order. Upon entering the nerve, this punctiform

[9] Much the same account is found not just in Ibn al-Haytham (Alhacen), *De aspectibus* I.6 (ed. Smith, pp. 348–55), but also in Witelo, *Perspectiva* III prop. 4 (ed. Unguru, pp. 105–11) and Pecham, *Perspectiva communis* I prop. 31 (ed. Lindberg, pp. 113–17).

[10] Again, compare Ibn al-Haytham (Alhacen), *De aspectibus* I.7 (ed. Smith, pp. 355–87), Witelo, *Perspectiva* III props. 6–18, and Pecham, *Perspectiva communis* I props. 33–8.

representation continues in proper order through the spirit pervading the nerve's hollow until it reaches the optic chiasma. There the representations from each eye merge to form a single, fused representation, which is then apprehended by the final sensor (*ultimum sentiens*). Constituting "perception by sense alone" (*comprehensio solo sensu*), this apprehension completes the act of sensation proper, which involves no cognitive mediation.

The visual representation thus abstracted by the lens and passed to the optic chiasma consists of nothing more than luminous color rendered visible. As such, it is like a mosaic; yet, like a mosaic, it also implies things that are not really in it, such as corporeity, shape, and so forth. Together, these implied things comprise the twenty sensibles mentioned earlier and referred to as "visible intentions" (*al-maʿānī al-mubṣara*; *intentiones visibiles*) by Ibn al–Haytham and his Latin disciples Bacon, Witelo, and Pecham. These intentions are discerned by the power of discrimination (*virtus distinctiva*) at the forefront of the brain – a power presumably exercised by the *sensus communis*. When presented with the visual representation apprehended by the final sensor, the common sense scrutinizes this representation by means of a scanning process called intuition (*intuitio*). Through this process, the power of discrimination apprehends the object represented according to its full array of visible attributes, including its inherent light and color. It also judges the quantity and quality of those attributes, determining, for instance, that the object is continuous and integral, small, red, bright, round, smooth, and so forth. The more intense the scrutiny, the clearer and more comprehensive the determination. After being apprehended and thus perceptually "realized" in this way, the compendium of sensible intentions is then sent to the imagination for short-term mnemonic storage. From there, this information can be recalled for subsequent scrutiny, either individually or as a whole that represents the object in all its physical particularity.

Repeated perception of such sensible intentions yields general impressions, which Bacon refers to as "vague particulars" (*particularia vaga*), each of which "is as common as its universal and is convertible with it." By means of such general impressions, we are able "to distinguish universals from one another and from particulars, and particulars from each other by comparison of the thing seen with the same thing previously seen, recollecting that it was previously seen and known to the observer" (*Perspectiva* I.10.3). That, of course, is how we recognize that the thing perceived is red, rather than green or blue, or that it is a horse, rather than a mule or a giraffe. Such recognition, however, is an intellectual rather than a perceptual act, and so it and everything that follows from it lies beyond the scope of this essay (see Chapter 26).

As both an exemplification of and elaboration on the species theory of sense perception, Bacon's account of vision rests on certain key assumptions that

apply in one way or another to virtually every scholastic account of sensation based on species. First, the sensory soul is essentially a *tabula rasa* that, from infancy onward, is increasingly scrawled over with sense data in the form of intentional species. Second, those species constitute virtual images of physical particulars and their objective, defining characteristics. As such, they somehow resemble those particulars, which means that our overall internal impression of physical reality faithfully depicts (or at least *can* depict) that reality, albeit in a virtual way. From this it follows, third, that sense perception in general – and vision in particular – is veridical under certain normative conditions. If the object perceived is large enough, the ambient light bright enough, the intervening medium transparent enough, the sensing organ healthy enough, and so forth, that object will be apprehended as it actually presents itself to the perceptual system. Only when those normative conditions are transgressed does misperception arise, and misperception can be rectified by reason. Fourth, sense perception is not merely passive; rather, sensory intentions are realized according to the innate capacity of the sense organs and the faculties of the sensory soul to apprehend the information conveyed by the sense data. Finally, properly modulated sense perception leads directly to cognition. Indeed, taken to the extreme, this assumption implies the famous Aristotelian maxim that there is "nothing in intellect that was not previously in sense" (see, for instance, Thomas Aquinas, *Quaest. de veritate* 2.3 ad 19).

STRENGTHS AND WEAKNESSES OF THE SCHOLASTIC THEORY

Several features made the species theory of perception compelling to high medieval scholastic thinkers. For one thing, the theory makes intuitive sense. Then, as now, much common discourse about perception and cognition is governed by visual metaphor. Even some of the technical terminology of the species theory is rooted in sight words, two obvious instances being 'species' itself (which literally means *image* or *appearance*) and 'imagination' (*imaginatio*). In addition, the species theory was based on the best scientific evidence and principles of the time.[11] Finally, it offers, or at least *seems* to offer, the comforting assurance that sense perception leads to a true and certain understanding of physical reality according to its taxonomic and causal structure.

Yet, for all its apparent strengths, the species theory poses problems at both the specific and general level. The scholastic account of sound is a good case in

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[11] This is especially the case with the Perspectivist account of vision, which draws heavily not only on Galenic anatomy and physiology, but also on Euclidean and Apollonian geometry for the basic principles of ray analysis.

point. For the most part, scholastic thinkers followed Aristotle (*De anima* III.8) in explaining sound as the result of an impact or percussion that is transmitted as movement through the air between what emits the sound and the ear. The problem here is that the movement generated in the air is not a replica of something formal in the object emitting it. In other words, according to this model, sound is not an inherent quality of external objects. Moreover, to suppose that actual sound consists not of the air's movement but of a species conveyed along with that movement is to beg the question, because it fails to explain what the species represents.[12]

In the context of the species theory, the case of distance and size is also problematic in at least two respects. First, distance and apparent size are relational and, as such, not actually in the object to which they are attributed. So how can there be an intention of such things in the sensible species? Ibn al-Haytham's answer, which is echoed by all the Perspectivists, is that we learn to visually estimate the size of objects and their distance from us on the basis of bodily experience, through which we acquire such notions as "one pace away" or "an arm's length away." Repeated experiences of these immediate distances carried incrementally outward, pace by pace, arm's length by arm's length, provide us with notions of longer and longer distances. Having fixed these notions in memory, we can then correlate them to the remembered notion of what a given object looks like at such distances. This, finally, enables us to estimate size and distance jointly according to the size–distance invariance principle, to which Ibn al-Haytham and his Perspectivist followers subscribed. Furthermore, if the space between viewer and object is punctuated by a succession of familiar objects (trees, people, houses, and so on) at familiar distances, we are able to extend our judgment of distance and an object's actual size to fairly long ranges. There are limits beyond which such judgment becomes so inaccurate as to cause misperception, however, as is the case with the "moon illusion," according to which we perceive the moon and sun as larger at the horizon than at the zenith.[13]

Second, as we saw earlier, both distance and size are assumed to belong to the set of twenty visible intentions that fall within the category of common sensibles by Bacon's account. Yet they are not apprehended in the same way

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[12] For further analysis of medieval sound theory and its problems, see Robert Pasnau, "Sensible Qualities: The Case of Sound," *Journal of the History of Philosophy* 38 (2000) 27–40.

[13] For a more detailed analysis of this theory of distance and size perception, see A. Mark Smith, "The Alhacenian Account of Spatial Perception and its Epistemological Implications," *Arabic Sciences and Philosophy* 15 (2005) 219–40. On the moon illusion, see A. I. Sabra, "Psychology Versus Mathematics: Ptolemy and Alhazen on the Moon Illusion," in E. Grant and J. Murdoch (eds.) *Mathematics and its Applications in Science and Natural Philosophy in the Middle Ages* (Cambridge: Cambridge University Press, 1987) 217–47.

as, say, corporeity (that is, spatial extension) or shape, which can be inferred directly from the color-determined boundaries of the visible representations impressed on the anterior surface of the lens. Accordingly, the perception of distance and size seems to occur at a more abstract inferential level than that of shape or corporeity; this, in turn, implies that size and distance are not grasped in the same way as shape and corporeity and are therefore not "common" in the same way.

Even more acute than these specific problems, moreover, is the general problem posed by species themselves. After all, if we perceive the physical world by means of species, does it not follow that those species, rather than that which they supposedly represent, are the actual objects of perception? Might we not then be deceived in thinking that species faithfully picture their objects? Perhaps, in fact, our internal, perception-based impression of physical reality does not resemble that reality at all. These sorts of issues exercised a number of scholastic thinkers toward the very end of the thirteenth century and led to increasing skepticism during the first half of the fourteenth century (see Chapter 28). Indeed, a handful of fourteenth-century thinkers, William of Ockham foremost among them, rejected species entirely in favor of direct, intuitive apprehension of physical particulars (see Chapter 25).[14] Few were willing to go that far, however, and so the species theory of perception hung on, *faute de mieux*, until the turn of the seventeenth century. Among the developments that finally put paid to it, Johannes Kepler's theory of retinal imaging was of crucial importance insofar as it transformed the lens from a sensory selector of visual information to a mere focusing device, projecting a real, inverted image of the visual field onto the back of the eye. Such an image is nothing like a species, and indeed species played absolutely no functional role in Kepler's model of vision. Kepler thus set the stage for a radical transformation of visual theory (and perceptual theory in general) during the seventeenth century.

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[14] See Katherine Tachau, *Vision and Certitude in the Age of Ockham: Optics, Epistemology and the Foundations of Semantics 1250–1340* (Leiden: Brill, 1988); Pasnau, *Theories of Cognition*; and Dallas Denery, *Seeing and Being Seen in the Later Medieval World: Optics, Theology and Religious Life* (Cambridge: Cambridge University Press, 2005).

MENTAL REPRESENTATION

CLAUDE PANACCIO

Medieval philosophers routinely distinguish between what is within the mind (*in anima*) and what is outside the mind (*extra animam*). Material substances and their qualities are taken to be paradigmatic cases of the latter, while emotions, acts of will, imaginations, and intellectual processes are salient examples of the former. An important array of problems these thinkers have to face, then, arise from the need to account for the various connections that can link the two realms. The most central of these problems is that some of the intramental stuff sometimes correctly represents the extramental: many of the philosophical preoccupations of the period, as it turns out, have to do with how *knowledge* comes about within the mind and how it is preserved.

The ultimate stake here is the human capacity for reaching *truth*. Following Aristotle, truth and falsity are thought of as features of *propositions*; and propositions, in Aristotelian logic, are taken to be complex units. Insofar, then, as the mental realm is the primary locus for knowledge, belief, and the like, there have to be propositions in it, and those have to be composed of simpler units: "for truth and falsity" Aristotle wrote, "involve a combination of thoughts" (*De anima* III.8, 432a10). Those subpropositional items, capable of serving as the basic representational units for the construction of mental propositions, will be the focus of the present chapter.

These items do not coincide, it must be said, with the whole range of what we might want to call "mental representations."[1] The medievals themselves, for one thing, would normally distinguish between the sensory and intellectual parts of the soul and, accordingly, between the sensible images, such as we use in imagining, and those *intellectual* representations that they took to be the basic

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[1] I take 'mental representation' here as it is used in recent philosophy for any mental item that represents something. For the specifically medieval use of *repraesentatio*, see Henrik Lagerlund, "The Terminological and Conceptual Roots of Representation," in H. Lagerlund (ed.) *Representation and Objects of Thought in Medieval Philosophy* (Aldershot: Ashgate, 2007) 11–34.

components of scientific knowledge (*scientia*) (see Chapter 26). While both should be counted as mental representations, our focus here will be on the latter.

Two sorts of problems will be reviewed. First, how are such intellectual representations present in the mind? This question came to be subdivided into two distinct aspects in late medieval discussions: (a) How are they stored? (b) How do they occur in actual episodes of thinking? Second, in virtue of what do such intellectual representations represent whatever they represent – which is what we call today the "problem of intentionality"? The accent all along will be on what was by far the most fruitful period for these discussions: the hundred-year span that runs from the middle of the thirteenth century to the middle of the fourteenth, with such figures in the foreground as Thomas Aquinas, John Duns Scotus, William of Ockham, and John Buridan.

THE THEORY OF SPECIES

The main approach to the storing of intellectual representation during this period was the species theory. It flourished in the second half of the thirteenth century, but the inspiration for it came from as far away as Augustine and Arabic optical science. Augustine, drawing upon the Greek scientific tradition, explained in his *De Trinitate* that from the form of an external body to its representation in thought, "four species are found . . . born, as it were, step by step, one from the other " (XI.16). There is, first, the species of the body itself, its own bodily form; then, when perception occurs, a new form arises in the sense – the *species in sensu*; this in turn gives rise to a form in memory, the *species in memoria*, which, finally, produces a form in the gaze of thought, the *species in acie cogitantis*. In the Islamic world, on the other hand, a sophisticated account of vision, based on a mathematical model for optical radiations, was elaborated in the eleventh century by the mathematician and philosopher Ibn al-Haytham (Alhacen), whose treatise *De aspectibus*, once translated into Latin in the twelfth century, became the main source for the so-called 'perspectivist' theory of the thirteenth century, in which 'species' was the key term, meaning something like *representative form*.[2] (See Chapter 24 for further details.)

Robert Grosseteste and Albert the Great played significant roles in this integration of the optical model within the Augustinian and Aristotelian

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[2] See, e.g., David Lindberg, *Theories of Vision from Al-Kindi to Kepler* (Chicago: University of Chicago Press, 1976).

frameworks, but its main proponent was the Franciscan Roger Bacon with his unified theory of the multiplication of species.[3] Bacon's idea was that every existing object continuously irradiates likenesses of itself into the surrounding parts of the universe, and that these emanations – called "species" – ultimately account for "every action in the world" (*Opus maius* IV.2.1). With respect to human cognition, when the species of material things propagated through the surrounding medium hit upon sensible organs, they produce new sorts of species within the sensory and eventually the rational parts of the soul. Mental representation, on this view, comes out as just a special case of the universal multiplication of species.

Bacon's interest in cognitional species focused more on perception than on intellection. It was his contemporary Thomas Aquinas, under the influence of Albert the Great, who most systematically applied the species scheme to the realm of intellectual representation and fused it into a general theory of abstraction. Aquinas, like Bacon, holds that human perception depends upon likenesses of the material things being propagated through the medium (the *species in medio*), leading to new likenesses being produced in the sensible part of the soul (the *species in sensu*). This process, which he sees as a progressive dematerialization, is brought to its full completion when the sensible species is transposed in turn into an even more purely spiritual sort of likeness, an intelligible species.[4]

Aquinas's theory has a number of salient features. First, it stresses the connection of the intelligible species with their prior sensible counterparts: "the whole of the intellect's cognition," Aquinas insists, "is derived from the senses" (*In De interpretatione* 1.3). On the other hand, the intelligible species, in his view, are *abstract* compared to sensible species. While the latter are singular representations of particular material things, the intelligible species are inherently general and refer the mind to the common natures – or quiddities – of things.

Intellectual representation is abstract in this way, according to Aquinas, because the intelligible species are produced within the mind as the result of the specialized action of what he calls, following Aristotle, the "agent intellect." Against Averroes and his Latin followers (such as Siger of Brabant), Aquinas thought of this agent intellect as a functional part of each individual human soul rather than as a separate transcendent power (see Chapter 23). He saw it,

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[3] See Katherine Tachau, *Vision and Certitude in the Age of Ockham: Optics, Epistemology and the Foundations of Semantics 1250–1340* (Leiden: Brill, 1988).

[4] See (among many others) Leen Spruit, *Species Intelligibilis: From Perception to Knowledge* (Leiden: Brill, 1994–5); Robert Pasnau, *Theories of Cognition in the Later Middle Ages* (Cambridge: Cambridge University Press, 1997), and *Thomas Aquinas on Human Nature* (Cambridge: Cambridge University Press, 2002).

however, as largely independent of the will: the agent intellect, on his doctrine, operates as a continuously working spiritual transducer taking as inputs the particular sensible images stored in the human memory and yielding as outputs abstract general representations stored in the "possible intellect." That such abstraction routinely takes place within the human mind is for Aquinas the basic condition on the possibility of scientific knowledge. The process does not introduce any "veil of ideas" between the knowing mind and the external things, because Aquinas insistently describes the intelligible species stored in the possible intellect as the *means* of intellectual cognition (the "*quo*") rather than its objects (the "*quod*").[5]

Although the theory of intelligible species is further elaborated – to some extent on independent grounds – by Scotus,[6] Aquinas's version would remain the standard target for the critical discussion that soon developed around it. Various criticisms would be voiced in the last decades of the thirteenth century, by Henry of Ghent and Peter of John Olivi in particular,[7] but the most sustained attack comes from William of Ockham in the early fourteenth century. Ockham rejects altogether the *species in medio*, the sensible species, and the intelligible species as superfluous posits.[8] His point against postulating such species in the intellect, in particular, is that whatever theoretical job they are expected to do can be accomplished as well by the intellectual acts and *habitus* that everybody admitted anyway. This is a striking case of Ockham using the famous Razor principle that came to be associated with his name: it is vain to do with more what can be done with less. Presupposed by this discussion is the Aristotelian psychological vocabulary, in which actual episodes of thinking are called "acts" (*actus*) of the intellect. Like all other human acts (virtuous acts of the will, for example), those were thought to imprint on the mind, whenever they occurred, a certain disposition (*habitus*) that facilitates the reoccurrence of similar acts. Aquinas, like everybody else, had all of this. But he thought intelligible species were needed in addition as *preconditions* for intellectual acts to occur. This is where Ockham disagrees.[9] The most basic intellectual acts, he holds, are directly caused by external things, and these original "intuitive acts" in

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[5] For one of Aquinas's typical statements about this, see *In De anima* III.2.

[6] Good presentations of Scotus's theory are found in Spruit, *Species Intelligibilis*, and Dominik Perler, "Things in the Mind. Fourteenth-Century Controversies over 'Intelligible Species'," *Vivarium* 34 (1996) 231–53.

[7] See Tachau, *Vision and Certitude*, ch. 2; Spruit, *Species Intelligibilis*, ch. 3; Pasnau, *Theories of Cognition*, chs. 5 and 7.

[8] Ockham's discusses the theory of species in *Reportatio* II.12–13 (for the intelligible species) and *Reportatio* III.2–3 (for the other two).

[9] That this is the gist of Ockham's critique of intelligible species is argued for in Claude Panaccio, *Ockham on Concepts* (Aldershot: Ashgate, 2004) ch. 2.

turn leave traces in the mind (*habitus*), which will sufficiently account for all subsequent intellectual acts. Much of the complicated apparatus of Thomistic intellectual cognition can thus be dispensed with.

It is often held that Ockham's critique of the theory of species did not receive much support after him and that even Buridan and other later fourteenth-century nominalists reverted to the doctrine Ockham had wanted to get rid of. This is true with respect to the *species in medio* and the *species in sensu*, which Buridan and his colleagues do make use of in their theory of sensible perception. The diagnosis is misleading, however, as regards intelligible species, for although Buridan, Nicole Oresme, and others active in Paris at this time revive the terminology of 'species' to refer to intellectual representations, what they mean in so doing is nothing Ockham could not have accepted. They clearly reject, in particular, the Thomistic idea that intelligible species are needed *prior* to the intellectual acts for them to occur: "such a species," Oresme writes, "does not precede the act of intellection, since it is acquired by such an act" (*In De anima* III.10). So although Oresme uses the terminology of an 'intelligible species,' he means it to describe what Ockham had described as a disposition. For both authors, consequently, the storing of intellectual representations is conceived as a matter of acquired dispositions (*habitus*), subsequent to the occurrence of intellectual acts caused in the mind by external things.

CONCEPTS AND INTELLECTUAL ACTS

The problem of what happens in actual episodes of thinking is not independent, of course, from that of storing mental representations. Even so, the two must be carefully distinguished, inasmuch as they give rise in medieval philosophy to distinct rounds of discussion. The new question here is whether a special mental object is produced by the intellectual act when a human being is engaged in the process of thinking. Peter Abaelard in the first half of the twelfth century suggested so:

> an understanding is a certain *action* of the soul on the basis of which the soul is said to be in a state of understanding. But the form to which it is directed is a kind of imaginary and made-up thing (*fictum*), which the mind contrives for itself wherever it wants and however it wants . . . We cannot call this either a substance or an accident.
>
> (*Logica "Ingredientibus"* [*In Porphyrium*], ed. Geyer, p. 96)

The act of thought, on this view, engenders its own objects as internal representations or likenesses for external things. Abaelard's remark about these made-up objects being neither substances nor accidents amounts to the idea that they should not be counted among the natural things of the world, but should be

attributed a special, purely ideal, mode of existence as mere objects of thought. This is what later came to be called 'concepts.'

The most salient medieval doctrine of concepts developed along these lines is Thomas Aquinas's. Although this doctrine is distinct from his theory of intelligible species, he carefully combines the two. Thus, once a species is stored in the mind (through the previously described process), the *possible intellect* can use it in actual thinking by producing through it a new mental representation. This is what Aquinas calls a concept or mental word (*verbum*): it subsists only as long as the mind entertains it, and its mode of existence is purely *intentional* rather than natural.[10]

Aquinas deems such special objects of thought necessary in order to account for the possibility of thinking about things in their absence, and for our capacity to assemble mental propositions and to perform inferences. The theory, as a bonus, also has some theological appeal, since, in the spirit of Augustine's *De Trinitate*, Aquinas sees this internal engendering of concepts by the human mind as the best worldly model available for God's engendering of his Word.

For all its virtues, however, the doctrine would come under heavy attack in the last decades of the thirteenth century, especially from Franciscans. Olivi, William of Ware, and Walter Burley reproach it on two main grounds. First, concepts thus understood threaten to constitute an unwelcome array of cognitive intermediaries between the mind and those external things that science is supposed to be about. If Aquinas had skillfully avoided the 'veil of ideas' problem in his theory of intelligible species by taking them to be the "*quo*" of cognition rather than the "*quod*," he did not seem to be nearly as successful with it in his theory of concepts, which he posited at times as the primary objects of thought.[11] Second, such internal ideal products, the critics insist, are superfluous: all the cognitive jobs they are supposed to fulfill can be attributed to the intellectual acts themselves. Duplicating these acts with such ghostly entities as these Thomistic concepts comes out in the end as both epistemologically harmful and psychologically useless. Still, for all that, these authors do not drop concepts from their cognitive picture: they simply *identify* them with intellectual acts.[12]

Mainstream philosophy of mind after Aquinas is characterized by this move from postulating special intentional objects to taking the intellectual acts

[10] This doctrine is frequently expounded by Aquinas. See, e.g., *Quaest. de veritate* 4, *Summa contra gentiles* I.53 and IV.11, and *Quaest. de potentia* 8–9.

[11] See, e.g., *Quaest. de potentia* 9.5: "What is intellected by itself is not the thing . . . What is intellected primarily and by itself, is what the intellect conceives in itself about the thing."

[12] More on this in Claude Panaccio, "From Mental Word to Mental Language," *Philosophical Topics* 20 (1992) 125–47.

themselves as the basic units of mental representation in actual thought. Ockham's own development in the 1310s and 1320s summarizes this passage.[13] In order to avoid positing universals and common natures outside the mind as the proper objects of intellectual activity, Ockham first subscribed to an Aquinas-like theory of concepts as mentally made-up units with a special mode of existence: this was his so-called *fictum* theory (see also Chapter 12). He changed his mind, however, when he realized that what is needed from concepts is that they can be used by the mind as general *signs* for things. This, he comes to think, can perfectly be accomplished by the intellectual acts alone: "all the advantages that derive from postulating entities distinct from acts of understanding can be had without making such a distinction, for an act of understanding can *signify* something and can *supposit for* [that is, stand for] something just as well as any sign" (*Summa logicae* I.12). Most later medieval philosophers eventually adopted this *actus*-theory of concepts.

INTENTIONALITY, LIKENESS, AND CONFORMALITY

A second important range of issues that medieval philosophers had to face with respect to intellectual representations revolved around what we now call the problem of *intentionality*: in virtue of what should any particular mental unit represent whatever it is that it represents? What is it about my mental concept *horse* that makes it a concept *of* horses? Aristotle's *De anima* provided medieval readers with a number of authoritative passages where the cognitive connection was described as a kind of *identity*, by sayings like: "the soul *is* in a way all existent things" (*De an.* III.8, 431b20), "intellect *becomes* each thing" (*De an.* III.4, 429b6), and so on. This suggested what has been called by recent commentators the *conformality thesis*: the reduction of intentionality to some *identity of form* between the knower and the known. Avicenna's and Averroes's highly respected comments on the Aristotelian psychology strongly supported this approach.[14]

Later medieval philosophy, however, progressively moved away from the con-formality thesis, as its drawbacks became more and more apparent. A first salient problem was to make it fit with a sound Aristotelian ontology: how can the sub-stantial form of a material body be identical with something accidental within the mind (as species and intellectual acts were taken to be)? One way out of this that was well known in the Latin Middle Ages was Avicenna's thesis of the

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[13] See Panaccio, *Ockham on Concepts*, ch. 2.

[14] For good accounts of how the conformality thesis emerged out of the Aristotelian tradition, see Pasnau, *Theories of Cognition*, ch. 3; Peter King, "Rethinking Representation in the Middle Ages," and Martin Tweedale, "Representation in Scholastic Epistemology," both in Lagerlund, *Representation and Objects of Thought*, 87–108, 68–86.

indifference of essences: common natures, on this view, are in themselves indifferent to existing within material bodies or within the intellect; those are just two possible modes of existence of the *same* essences.[15] But it was hard to see how this gambit in the end could avoid Platonism, inasmuch as it seemed to require admitting Ideal Forms subsisting in themselves independently of their instantiations, a position that most of the Latin scholastics considered successfully refuted by Aristotle. Second, there were problems with harmonizing the conformality thesis with the accepted cognitive psychology: should the form of the thing as it exists in the intellect be identified with the intelligible species, with a mental *fictum*, with the intellectual act itself, or should it be added somehow to the furniture of the mind? All of these options led to serious difficulties.

Even Aquinas, to whom the conformality thesis is often attributed, can plausibly be interpreted as having kept away from it. It is true that Aquinas sometimes asserts that "natures have two kinds of being: one in the singulars and the other in the soul" (*De ente et essentia* 3.3). But he is usually very careful to qualify this Aristotelian way of speaking by explaining it, ultimately, in terms of 'likeness' and 'representation,' rather than the other way around: "what is intellected is not in the intellect through itself but through its likeness" (*Summa theol.* 1a 76.2 ad 4). Saying that the nature of the external thing comes to be within the mind is but a way of saying that this nature is *represented* within the mind by some *likeness* of it. Far from reducing intentional representation to the identity of form, Aquinas in the end does exactly the reverse, taking 'likeness' and 'representation' as more basic.[16]

It has been argued that 'likeness' in Aquinas's vocabulary is itself ultimately explainable in terms of identity, the main reference for this being to Aquinas's definition of 'likeness' (*similitudo*) as "an agreement or a communication in form" (*Summa theol.* 1a 4.3c).[17] But Aquinas in fact did not mean this definition to apply to the special case of *mental* likeness. When he gets specifically interested in the latter, he is eager, on the contrary, to distinguish it sharply from any "agreement in nature":

a likeness between two things can be understood in one of two senses. In one sense, according to an agreement in their very nature, and *such a likeness is not needed between the cognizer and the cognized thing*... The other sense has to do with *likeness by representation*, and this likeness is required between the cognizer and the cognized thing.

(*Quaest. de veritate* 2.3c)

[15] See Avicenna, *Metaphysics* V.1–2.

[16] See Claude Panaccio, "Aquinas on Intellectual Representation," in D. Perler (ed.) *Ancient and Medieval Theories of Intentionality* (Leiden: Brill, 2001) 185–201.

[17] See Dominik Perler, "Essentialism and Direct Realism: Some Late Medieval Perspectives," *Topoi* 19 (2000) 111–22.

Mental representation, as a result, is left unreduced with respect to any sort of identity.

Another medieval idea that is sometimes connected with the conformality thesis is that of "objective being" (*esse objectivum*), as it is found, saliently, in the work of Scotus.[18] Scotus's writings on this topic are notoriously difficult, yet on one plausible reading – suggested, for instance, by Scotus's close disciple William of Alnwick – the idea of objective being neither depends upon nor favors the conformality thesis.[19] An object x, on this terminology, is said to be objectively in a mind y if and only if x is the object of a cognitive state of y – if and only if, in other words, x is represented in y somehow. Think of a book about Julius Caesar. It could correctly be said, in the relevant sense, that Caesar is objectively in the book, not because he is hidden in the pages in some ghostly way, but simply because he is referred to in the book. Thus understood, the idea of 'objective being' presupposes that of being an object for a cognitive state, and can hardly serve, consequently, as the basis for a satisfactory account of intentionality.

The conformality thesis, in short, was not a preeminent contender in later medieval thought as a theoretical approach to mental representation. Neither Aquinas nor Scotus, with whom it is often associated, provided in the end a worked-out account of intentionality in terms of identity of form, and it is doubtful that they ever intended to.

SIGNIFICATION AND CAUSALITY

The early decades of the fourteenth century are often credited with a major revolution in philosophy of mind and language, and rightly so.[20] With respect to the intentionality of concepts, two major developments are of special relevance: a general semiotical turn in philosophy, and a strong intensification of the Aristotelian naturalistic drive.

Medieval logicians, from the twelfth century on, had progressively worked out a highly original body of semantic theory around what they called the "properties of terms," with the idea of *signification* at its core. In Walter Burley, Ockham, Buridan, and their contemporaries, this "terminist logic" reached a high degree of sophistication and became the main analytical tool for discussing all sorts of problems in philosophy and theology (see Chapters 11–12). There

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[18] See in particular Perler, "Things in the Mind."

[19] The first of Alnwick's *Quaestiones de esse intelligibile* is translated in R. Pasnau, *Cambridge Translations of Medieval Philosophical Texts*, vol. III (Cambridge: Cambridge University Press, 2002) 152–77.

[20] See, e.g., King, "Rethinking Representation in the Middle Ages."

were many disagreements over the particulars of the theory, but on the whole the terminist apparatus for semantic analysis was found to be quite illuminating over a wide range of issues.

To Ockham in particular, the clarifying virtues of the approach suggested that the terminist grid, if suitably adapted, might be used for the description and assessment of discursive thought itself, rather than of external linguistic utterances only. From William of Auvergne to Roger Bacon, the basic units of intellectual representation had been counted as 'signs' by many in the thirteenth century. What Ockham did was to take them as signs in the precise sense that was relevant for terminist logic to apply: a mental 'term,' accordingly, was to be seen as a mental unit independently endowed with a signification and capable of various referential functions (called "*suppositio*") when combined with other similar units in syntactically well-formed sentences or propositions. It is one of Ockham's most influential contributions that he systematically brought the technical terminology of grammar and that of *significatio* and *suppositio* to bear upon the study of *concepts*: concepts, for him, are natural signs within the mind, interconnectable with each other as the basic elements of a semiotic system with a precise syntax and semantics.[21] Ockham thus resolutely defended a strong version of what is called today the "language of thought hypothesis," and the approach, after him, remained popular among scholastic thinkers until far into the fifteenth and sixteenth centuries.[22] The intentionality of thought, on this picture, was taken to rest, fundamentally, upon the *natural signification* of certain simple mental items syntactically combinable with each other.

This is where the naturalistic drive comes in. By the time of Ockham and Buridan, the main outcome of the debates summarized above over intelligible species and mental concepts was, as we saw, that intellectual acts and *habitus* themselves could serve as the basic units of cognition, with no need for postulating special extra representations in the mind either before the intellectual acts or as purely ideal products of them. But acts and *habitus*, by contrast with Aquinas's concepts, for example, were thought of as *natural* beings: they were taken to be *qualities* of singular minds, like colors are qualities of material substances, and to be unproblematically inserted, as such, in the network of *causal* connections that characterizes the realm of what is natural. From Scotus onward, much of the interest in epistemology revolves around the various causal links naturally involved in cognitive processes. Insofar as intentionality in general is

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[21] See Claude Panaccio, "Semantics and Mental Language," in P. V. Spade (ed.) *The Cambridge Companion to Ockham* (Cambridge: Cambridge University Press, 1999) 53–75.

[22] See E. J. Ashworth, *Language and Logic in the Post-Medieval Period* (Boston: Reidel, 1974), and Gabriel Nuchelmans, *Late-Scholastic and Humanist Theories of the Proposition* (Amsterdam: North-Holland, 1980).

made to rest upon the natural signification of certain mental items, as Ockham proposes, it becomes very tempting to reduce natural signification in turn to some combination or other of causal connections. Ockham indeed explicitly defends this naturalistic program, with respect at least to the *singular* terms of our mental language: such a representation, he explains, "brings the mind to the cognition of this object by which it was (partially) caused" (*Reportatio* II, 12–13, 289). And he is strongly committed to taking natural causal connections as, at least partially, determining the signification of our basic general concepts such as *man*, *flower*, or *animal*, including, most probably, some relational ones such as *similar to* or *larger than*.[23]

Ockham never completely renounces the traditional idea that intellectual representations are *likenesses* of what they represent, but this, for him, is not to say much. His main point in following tradition here is to stress that the internal form of a concept is relevant somehow for its cognitive role to be correctly played: a concept, after all, should help us to recognize a new individual as falling under it, when it does, and for this, its own form must resemble in some way that of the external thing. But this is a secondary role for Ockham. What he wants concepts to do, primarily, is to stand – in his terms, to supposit – for certain things within mental propositions in such a way as to decisively affect the truth conditions of these propositions. Which things exactly they will stand for depends to a very large extent on which causal transactions a given mind is – or was – engaged in: the natural signification of our simple concepts thus turns out to be, basically, a matter of causality. Many fourteenth-century philosophers after Ockham, from Adam Wodeham and John Buridan to Nicole Oresme and Peter of Ailly, go along this semiotico-naturalistic path with him, producing in the process a rich literature of precise discussions over both the syntax and semantics of our mental language, and the causal connections that are required for cognition to take place. The so-called *via moderna* of the fourteenth century thus crucially tends to account for intellectual representation in terms of natural processes. Much research remains to be done as to how this program was carried on in the later Middle Ages, and how it was eventually superseded in the seventeenth and eighteenth centuries, but there is no doubt that the episode constitutes a high point in the history of epistemology and philosophy of mind.

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[23] This is argued for at some length in Panaccio, *Ockham on Concepts*, esp. chs. 6–7.

SCIENCE AND CERTAINTY

ROBERT PASNAU

When James of Venice translated the *Posterior Analytics* from Greek into Latin, in the second quarter of the twelfth century, European philosophy got one of the great shocks of its long history. John of Salisbury famously remarked that "it has nearly as many obstacles as it has chapters, if indeed there are not more obstacles than chapters" (*Metalogicon* IV.6). Latin philosophers had taken themselves to have a grip on Aristotle's logic, but what they were discovering in the twelfth century was that their grasp extended only to what would be called the Old Logic, the *ars vetus*, leaving untouched the New Logic of the *Topics*, the *Sophistical Refutations* and, most importantly, the *Prior* and *Posterior Analytics*. Moreover, as the Latin philosophical canon swelled in the later twelfth century to include not just the full Aristotelian corpus but also the riches of Arabic philosophy, European authors realized just what a central role the *Posterior Analytics* in particular played in all this work. Although we now tend to focus on the recovery of Aristotle's natural philosophy, metaphysics, and ethics, it is arguably the *Posterior Analytics* – not the *Ethics*, the *Metaphysics*, the *Physics*, or the *De anima* – that had the most pervasive influence on scholastic thought. For it is here that Aristotle sets out the methodological principles that are to be followed in the pursuit of systematic, scientific knowledge: what the Latin tradition would call *scientia*. Inasmuch as scholastic philosophers take the goal of all their inquiries to be the achievement of such *scientia*, the strictures of the *Posterior Analytics* had an influence on virtually every area of scholastic thought, from theology (see Chapter 50) to metaphysics (Chapter 44), and from grammar (Chapter 15) to optics (Chapter 24).

The *Posterior Analytics* was important early in Islamic thought, and below I will suggest one respect in which this tradition had a significant influence on Latin scholasticism. But the focus of this chapter will be on how Aristotle's conception of science was developed in Christian Europe in the thirteenth and fourteenth centuries. The focus will not, however, be on science in our modern sense, inasmuch as that conception of science as something distinct from systematic inquiry in philosophy or theology is a strictly post–medieval

development. The chapter's focus will be on science in Aristotle's sense: roughly, an intellectual grasp of a true proposition grounded in an understanding of why that proposition is true. Since there is no word in English that refers to this, I will often retain the terminology of the authors in question, and so speak of *epistēmē*, *scientia*, and ʿ*ilm*.

KNOWLEDGE AND SCIENCE

There were, of course, systematic attempts at knowledge among Latin authors prior to the recovery of the *Posterior Analytics* (see Chapter 16), and there were extensive discussions of what knowledge is. But once medieval philosophy fell under the domination of Aristotle in the thirteenth century, theoretical discussions of knowledge tend to presuppose the apodeictic framework set out in the *Posterior Analytics*. For a proposition to be the object of *scientia* in this sense, it must be necessary and universal, known on the basis of an affirmative demonstration in the first syllogistic figure, the premises of which are necessary and explanatory of the conclusion.

Plainly, there is not much that we know in this way. Accordingly, it was never tempting to treat the *Posterior Analytics* as a treatise of epistemology in our modern sense. Instead, scholastic discussions of *scientia* would typically begin by bracketing off Aristotle's conception of *scientia* from the more casual conception employed – then as now – in ordinary use. Thus, in the first Latin commentary on the *Posterior Analytics*, from the 1220s, Robert Grosseteste distinguishes four ways in which we might speak of *scientia*:

It does not escape us, however, that having *scientia* is spoken of broadly, strictly, more strictly, and most strictly. [1] *Scientia* commonly so-called is [merely] comprehension of truth. Unstable contingent things are objects of *scientia* in this way. [2] *Scientia* strictly so-called is comprehension of the truth of things that are always or most of the time in one way. Natural things – namely, natural contingencies – are objects of *scientia* in this way. Of these things there is demonstration broadly so-called. [3] *Scientia* more strictly so-called is comprehension of the truth of things that are always in one way. Both the principles and the conclusions in mathematics are objects of *scientia* in this way . . . [4] *Scientia* most strictly so-called is comprehension of what exists immutably by means of the comprehension of that from which it has immutable being. This is by means of the comprehension of a cause that is immutable in its being and its causing.

(*In Post. an.* I.2, ed. Rossi, p. 99)

The most familiar, and so in a way the most striking, of Grosseteste's four kinds of knowledge is the first: common *scientia*. It is not obvious that Aristotle did want to allow *epistēmē* of unstable (and so not even for the most part) contingent truths – at any rate, this takes us quite far from the *Posterior Analytics* framework.

Still, the need for something like this broad conception of knowledge seems to have been widely felt, judging from how pervasive the notion would become among later scholastic authors, who very often cite Grosseteste as their source.[1]

Scientia in this broad sense is very much like what we now call knowledge. Rather surprisingly – at least from a modern perspective – such a conception of "ordinary" knowledge received little more than passing, desultory attention in the Middle Ages. It was instead the strict requirements of the *Posterior Analytics* that benefited from exhaustive scholarly inquiry, both in textual commentaries and in independent logical treatises. One might conclude, on this basis, that Aristotle had a negative impact on scholastic thinking about knowledge, leading authors to concentrate on one quite narrow and idiosyncratic conception to the exclusion of anything like a generally adequate epistemology. One response to this charge would be the sort of move often associated with Platonism – namely, to dismiss everyday perceptual knowledge as not worthy of the name at all, or, in a phrase that al-Ghazālī ascribes to the theologians, that such knowledge "is a kind of ignorance."[2] This was never the common attitude of the scholastics, however, given their empirical, Aristotelian orientation. One might say instead that, in place of epistemology, later medieval Latin authors focused on cognitive theory (see Chapter 25). Yet this, too, would be somewhat misleading, inasmuch as it suggests that Aristotle's rigorous framework is unacceptable as an epistemic theory. On the contrary, a plausible case can be made for that framework as, if anything, a more attractive paradigm for what epistemology ought to be.

After all, as has become increasingly apparent in recent years, it is doubtful that there is *a* common conception of knowledge in the "ordinary" sense – even limiting ourselves to speakers of English – that can be given a satisfactory analysis. Moreover, even if such an analysis could be given, the effect would be to set up a rigid bar that beliefs must pass over in order to count as knowledge, yielding a crude binary account on which beliefs either succeed or fail to count as knowledge. So analyzed, all knowledge has the same epistemic credentials, meaning that there is no room to talk about having a more or less satisfactory knowledge of some proposition. By the same token, on this binary approach, questions of skepticism naturally loom large, because it might well be that when

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[1] See, e.g., Albert the Great (*In Post. an.* I.2.1); Henry of Ghent (*Summa quaest. ord.* 1.1c); William of Ockham (*Summa logicae* III-2.1); John Buridan (*Summulae* 8.4.3–4). The distinction between a broad and strict sense goes back at least to Themistius's paraphrase of *Post. An.* (I.2), which was translated into Latin from Arabic by Gerard of Cremona before 1187, and which we know Grosseteste to have used. See Pietro Rossi, "Robert Grosseteste and the Object of Scientific Knowledge," in J. McEvoy (ed.) *Robert Grosseteste: New Perspectives on his Thought and Scholarship* (Turnhout: Brepols, 1995) 53–76.

[2] *Mi'yār al-'ilm*, ed. Shams ad-Dīn, p. 244; tr. J. McGinnis and D. C. Reisman, *Classical Arabic Philosophy* (Indianapolis: Hackett, 2007) p. 239.

we alight upon just the correct height at which to set the bar of knowledge, none of our beliefs will manage to clear it, in which case we will have arrived at the result that no one knows anything.

This is not to say that the precise scheme of the *Posterior Analytics* can be defended today. That discussion is too wedded to the syllogism, and too obscure in many of its details to serve as an attractive model. Still, the *Posterior Analytics* offers a perspective worth taking seriously, in virtue of its overarching ambition to conceive of knowledge in terms of an epistemic ideal: what the perfect cognitive state is for beings such as us. This is how Thomas Aquinas, for instance, begins his gloss on Aristotle's definition of *epistēmē*: "When Aristotle says 'We think we have *scientia*,' etc. [*Post. An.* 71b10], he offers a definition of having *scientia simpliciter*. With respect to this we should consider that to have *scientia* of something is to cognize it perfectly" (*In Post. an.* I.4.5).[3] John Duns Scotus invokes the same idea, in discussing the same passage: "The first condition, that *scientia* be a certain cognition, excluding all deception, opinion, and doubt, applies to every intellectual virtue, because an intellectual virtue is a perfection of intellect, disposing it for perfect operation" (*Additiones magnae* prol. 1.1 [ed. Wadding, XI: 2]).[4] These passages reflect the standard scholastic conception of what it is to have *scientia*; as we will see, the subsequent details of their account follow directly from this starting point.

The above passage from Grosseteste illustrates how the Aristotelian approach puts knowledge on a sliding scale. The theory aims to identify an epistemic ideal – what would be the best epistemic state we could hope to achieve, given our cognitive abilities. This is the notion from which our modern usage of 'science' stems, via the seventeenth century, inasmuch as the scientist aims not just to acquire knowledge, but to achieve an ideally trustworthy and rigorous understanding of a given fact. When epistemology is so conceived, methodological principles immediately suggest themselves: thus, according to Aristotle, to achieve the ideal of *epistēmē*, we must formulate our conclusions in syllogistic form, aiming at necessary truths inferred ultimately on the basis of self-evident first principles. Yet, of course, when one begins with ideal theory, one must be prepared to relax those strictures as necessary, and so a good deal of medieval theorizing over *scientia* concerns what to do in cases where one or more of these

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[3] See also *Summa theol.* 1a2ae 67.3c; *Sent.* III.31.2.1.1 obj. 4; *Quaest. de veritate* 11.1 sc 5; *Quaest. de virtutibus in communi* 7c: "someone is said to be understanding or knowing inasmuch as his intellect is perfected for cognizing what is true."

[4] See also *Ordinatio* prol. 3 n. 26; *Ordinatio* III.24 q. un. (ed. Wadding, VII.1: 482–3). Scotus's views are discussed in some detail in Eileen Serene, "Demonstrative Science," in N. Kretzmann *et al.* (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 496–517. This remains a useful summary of its topic.

desiderata cannot be achieved – as, for example, in biology, where conclusions tend to hold only for the most part rather than necessarily, or in theology, where first principles often are not self-evident but must be embraced on faith alone.[5] Given this picture, in fact, there is something absurd about singling out one point along the scale and engaging in a pitched battle over whether our beliefs pass that test. Accordingly, medieval authors are rarely very interested in the problem of skepticism (see Chapter 28).

THE OBJECTS OF KNOWLEDGE

Scholastic authors disagreed in various ways over what *scientia* had as its object. One disagreement, especially prominent in the early fourteenth century, concerned whether knowledge concerns things, linguistic–conceptual entities, or something else altogether. Walter Chatton argues for the first thesis: when one knows something about God, for instance, the object of knowledge is not a sentence or a thought but is, instead, God (*Sent.* prol. 1.1). Robert Holcot argues against this view. When one knows that man is not a donkey, is the object of knowledge man or donkey? Moreover, the object of knowledge is a truth, but things are not truths (*Quodlibet* I.6 in Courtenay, *Revised Text*). According to Holcot, the objects of knowledge must be thoughts and sentences. Ockham had thought this as well, but Holcot insists on something that was not quite clear in Ockham – namely, that the objects in question are particular tokens of a thought or sentence, so that what one knows is the sentence one is hearing right now, or the thought one is thinking (ibid.).[6] This is a plainly counterintuitive view: it does not seem that one comes to know more things by listening to people repeat themselves. If one thinks the objects of knowledge are neither things nor sentence tokens, though, then it seems that one needs to appeal to some more abstract sort of entity. This is the approach championed by Adam Wodeham, who contends that when one knows that man is an animal, the object is an abstract sentence type, man-being-an-animal (*hominem esse animal*). As for what that thing is, Wodeham seems to think that no good answer can be given (*Lectura secunda* I.1). Gregory of Rimini would later take much

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[5] On for-the-most-part conclusions, see Aristotle, *Post. An.* I.30 and II.12, 96a8–18. On theology as a science, see the classic study of Marie-Dominique Chenu, *La théologie comme science au XIIIᵉ siècle* (Paris: Vrin, 1957).

[6] There is an insightful discussion of Holcot's view in E. A. Moody, "A Quodlibetal Question of Robert Holcot, O.P. on the Problem of the Objects of Knowledge and of Belief," *Speculum* 39 (1964) 53–74. For the larger debate over the objects of knowledge, see the groundbreaking studies of Gabriel Nuchelmans: *Theories of the Proposition: Ancient and Medieval Conceptions of the Bearers of Truth and Falsity* (Amsterdam: North-Holland, 1973), and *Late-Scholastic and Humanist Theories of the Proposition* (Amsterdam: North-Holland, 1980).

the same approach and famously describe such an abstract entity as a *complexe significabile* – a signifiable complex (see esp. *Sent.* I prol. q. 1).[7]

One of Rimini's arguments in favor of abstract entities as the objects of *scientia* is that the theory of *scientia* requires its objects to be *necessary*, thereby excluding contingent entities such as token thoughts or utterances, or things in the world (ibid., art. 1 [ed. Trapp *et al.*, I: 6]). The necessity argument was part of Aristotle's official definition of *scientia*, which runs as follows: "We think we have *scientia* of a given thing *simpliciter*, and not in a sophistical way (which is by accident), when [a] we think we cognize the cause on account of which the thing is, and [b] that it is its cause, and [c] that it is not possible for it to stand otherwise" (*Post. An.* I.2, 71b10–12, translating from James of Venice's Latin version). The passage is hardly clear regarding what sorts of entities one has knowledge of, but clause (c) is at least clear that *scientia* concerns things that are somehow necessary. As noted above, this constraint is problematic in many areas of knowledge, such as biology – or indeed in any field where we seek *scientia* regarding particular individuals, or contingent states of affairs. What Aristotle seems to have had in mind in such cases is that *epistēmē*, even when concerned with the particular and the contingent, is nevertheless always concerned with necessary connections (or, minimally, with "for the most part" connections). And what the *Posterior Analytics* stresses as the key to grasping such connections is knowing "what a thing is" – or, in more medieval terms, knowing its essence.[8]

This is the ultimate foundation of the medieval preoccupation with essences. A scientific understanding of the natural world, on this view, is not simply a comprehensive listing of true sentences about that world; instead, it is a grasp of the essential features of the world, which brings with it an understanding of how things necessarily are, and how they necessarily relate to other things (for further discussion of essences, see Chapter 46). Here the methodological precepts of the *Posterior Analytics* interact with both the *De anima*'s theory of soul and the broader cognitive story in which that theory is embedded. It was clear to the earliest Latin commentators that one of the central cruxes of the whole account was how to square the generally empiricist Aristotelian approach with the need to arrive at a grasp of the inner natures or essences of things.

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[7] See, most recently, Susan Brower-Toland, "Facts vs. Things: Adam Wodeham and the Later Medieval Debate over Objects of Judgment," *Review of Metaphysics* 60 (2006) 597–642, and Pascale Bermon, *L'assentiment et son objet chez Grégoire de Rimini* (Paris: Vrin, 2007). Both Holcot's and Wodeham's discussions are translated in Robert Pasnau, *Cambridge Translations of Medieval Philosophical Texts*, vol. III: *Mind and Knowledge* (Cambridge: Cambridge University Press, 2002) 302–51.

[8] The need to grasp what a thing is, and to make that the middle term in a demonstration, is the main theme of *Post. An.* Bk. II. On the connection between this and necessity, see the useful remarks in Jonathan Barnes's translation and commentary on *Post. An.* 71b10 (pp. 92–3).

Grosseteste, drawing on the *Posterior Analytics*' notoriously brief concluding remarks about how "perception instills universals" (100b5), offers this account:

And so when, over time, the senses act through their many encounters with sensible things, reason, which is mixed up with the senses and in the senses as if it were carried toward sensible things in a ship, is awakened. Once awakened, reason begins to draw distinctions and to consider separately things that had been confused in the senses. Sight, for instance, confuses color, size, shape, and body, and in its judgment all these things are taken as a single thing. Awakened reason, however, distinguishes color from size and shape from body and then shape and size from the substance of body, and so by drawing distinctions and abstracting, it arrives at a grasp of the substance of body, which supports size, shape, and color.

<div align="right">(In Post. an. I.14, ed. Rossi, p. 214)</div>

Scholastic authors generally agree that something like this must happen, as the intellect takes a superficial sensory grasp of perceptual qualities and attempts to arrive at an understanding of the underlying substance or nature or essence of the thing. But the only common ground among authors with respect to the details of this process is their inability to supply persuasive details.

The main divide, in this domain, was over whether a naturalistic story could account for our grasp of essences. Grosseteste himself offers a kind of mixed verdict: in this life, we ordinarily rely on the senses for our intellectual grasp of the universal natures of things. But, sounding more Platonic and Augustinian than Aristotelian, he indicates that this orientation is not inevitable:

If the highest part of the human soul, the so-called intellective part, which is not the actuality of any body and needs no corporeal instrument for its proper operation, were not clouded over and burdened by the weight of the corrupt body, it would have complete knowledge without the aid of sense perception, through an irradiation received from a higher light.

<div align="right">(ibid., p. 213)[9]</div>

Subsequent proponents of divine illumination (see Chapter 27) often argued for its necessity on the grounds that a strictly naturalistic account of concept formation through sense perception would not be adequate to explain our grasp of the natures of things.[10] And although scholastic authors from John

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[9] This and the previous passage are based on an unpublished translation by Scott MacDonald. For a discussion of Grosseteste's views in this area, see Steven P. Marrone, *The Light of Thy Countenance: Science and Knowledge of God in the Thirteenth Century* (Leiden: Brill, 2001), and Christina Van Dyke, "An Aristotelian Theory of Divine Illumination: Robert Grosseteste's Commentary on the Posterior Analytics," *British Journal for the History of Philosophy* (forthcoming).

[10] This was, for instance, one of the main grounds of Henry of Ghent's protracted defense of divine illumination in the 1270s; see Robert Pasnau, "Henry of Ghent and the Twilight of Divine Illumination," *Review of Metaphysics* 49 (1995) 49–75.

Duns Scotus forward almost always rejected this sort of Augustinian appeal to the supernatural, there remained in their alternative accounts little by way of details regarding how one gets from sensory impressions to a grasp of essences, as well as widespread pessimism regarding the extent to which we in fact do manage to succeed in this.[11]

SCIENCE AND CAUSES

The first two clauses in Aristotle's definition of *epistēmē* require that we grasp "the cause on account of which the thing is." This idea gets expressed in scholastic texts as a distinction between a demonstration that merely establishes the fact of something's being so (demonstration *quia*), and a demonstration that establishes the reason why something is so (demonstration *propter quid*). In its original, pre-Kantian sense, an *a priori* demonstration is one that proceeds from principles that are causally prior, whereas an *a posteriori* demonstration reasons from effects back to causes. For this reason, only *propter quid* or *a priori* demonstrations yield *scientia* in the strict sense (see also Chapter 44).

When the Aristotelian program is understood as the characterization of an ideal cognitive goal, the causal requirement cannot really be very controversial. Even before Aristotle, Plato speaks of the need to grasp the "legitimate cause and reason" of natural phenomena (*Timaeus* 28a), and even before the recovery of the *Posterior Analytics*, Peter Abaelard quotes from Virgil's *Georgics* – "Happy the man who has been able to discover the causes of things" (ii.490) – in support of the claim that "the man of understanding is he who has the ability to grasp and ponder the hidden causes of things" (*Logica* "*Nostrorum*," ed. Geyer, pp. 505–6). Although historians have sometimes found a rejection of this doctrine in the seventeenth century, in fact this is one part of the scholastic program that would be generally embraced by later thinkers. Even the great atomist Pierre

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[11] Roger Bacon, *Opus maius* I.10 remarks that "no one is so wise regarding the natural world as to know with certainty all the truths that concern the nature and properties of a single fly, or to know the proper causes of its color and why it has so many feet, neither more nor less." Aquinas says almost exactly the same thing: "our cognition is so weak that no philosopher could have ever completely investigated the nature of a single fly" (*In Symbolum Apostolorum* prol. [*Opuscula theol.* II, n. 864]). For a discussion of Aquinas's views, see Philip Reynolds, "Properties, Causality, and Epistemic Optimism in Thomas Aquinas," *Recherches de théologie et philosophie médiévale* 68 (2001) 270–309. In the next century, William of Ockham would express great skepticism regarding our ability to distinguish differences in species (*Quodlibet* III.6), as would Francis of Marchia (*Sent.* I.3.1), among many others. For a general and pessimistic discussion of the gap between sense and intellect in scholastic accounts, see Peter King, "Scholasticism and the Philosophy of Mind: The Failure of Aristotelian Psychology," in T. Horowitz and A. Janis (eds.) *Scientific Failure* (Lanham, MD: Rowman and Littlefield, 1994) 109–38.

Gassendi can quote with approval the very same passage from Virgil (*Syntagma* II.1.4.1, ed. 1658, p. 283a).

The Aristotelian causal requirement might better be described as an explanatory requirement, where the kinds of explanations are the famous four causes: material, formal, efficient, and final. One way or another, virtually every scholastic author accepts this list, and also accepts that *scientia* requires a grasp of them all. This is not to say that scholastic authors were always optimistic about our ability to achieve this ideal. John Buridan, for instance, considers the question of whether "perfectly knowing some effect requires knowing all of its causes," and answers in the affirmative – but he then admits that this is impossible for us. This does not lead him to reject the causal requirement, however, but only to formulate a less demanding standard for *scientia* that we can meet. Nevertheless, that requirement still has a causal component; indeed, Buridan rather surprisingly denies that mathematics should be regarded as the most certain of sciences precisely because its demonstrations do not contain an account of the reason why the theorems of math are true (*Quaest. Phys.* I.5). Subsequent critics of scholasticism were not, in general, any more pessimistic than medieval authors regarding our ability to grasp the underlying explanations of things. Where they differed is in what sorts of explanations they recognized. Although Gassendi, for instance, accepts that a grasp of causes is a prime desideratum in physics, he insists that "only the efficient is properly called a cause" (*Syntagma* II.1.4.1, p. 284a). The rejection of forms, prime matter, and final causes lies at the very heart of what is supposed to be modern in seventeenth-century philosophy.

CERTAINTY AND EVIDENCE

Surprisingly, Aristotle says nothing at all about certainty in the *Posterior Analytics*. By the later Middle Ages, however, the link between *scientia* and certainty becomes taken for granted, and the certainty of perfect, demonstrative *scientia* is contrasted with the merely plausible arguments of dialectic. The idea of certainty is hardly present in Grosseteste's commentary on the *Posterior Analytics*, but it appears very prominently a generation later, at the start of Albert the Great's commentary:

A human being ought to fill his soul not with what is [merely] plausible (*probabile*) and credible (*opinabile*), because they do not yield a stable (*stantem*) disposition in the soul, but with things that are demonstrable and certain, which render the intellect certain and stable, because such things are themselves certain and eternally stable. And from this it is clear that this alone . . . is the end and most perfect and is unconditionally desirable among the logical sciences.

(I.1.1, ed. Jammy, I: 514a)

Albert invokes the preface to Ptolemy's *Almagest* in defense of this claim, but it seems likely that his true inspiration is not Greek but Arabic authors, for whom certainty (*yaqīn*) was a crucial desideratum in knowledge (*'ilm*) from the start of their discussions.

This association between knowledge and certainty was virtually inevitable within the Arabic tradition, because the standard Arabic translation of the *Posterior Analytics*, by Abū Bishr Mattā, employs *yaqīn* quite liberally throughout the text in places where Aristotle speaks simply of knowledge or demonstration.[12] Al-Fārābī puts particular weight on certainty as a characteristic of science, describing "certain philosophy" as the culmination of a process that first proceeds through sophistical and dialectical reasoning (*Kitāb al-ḥurūf*, ed. Mahdī, nn. 108–42). He defines certainty in terms of a kind of meta-conviction about one's beliefs:

Certainty means that we are convinced, with respect to what we assent to, that it cannot possibly be different from our conviction. Moreover, we are convinced that this conviction about it also cannot be otherwise, to the point that when one reaches a given conviction concerning his initial conviction, he maintains that it, too, cannot be otherwise, and so on indefinitely.

<div align="right">(Kitāb al-burhān, ed. Fakhry, p. 20)[13]</div>

The interesting idea here is that to be certain is to have something more than a mere conviction. One might be convinced of certain political beliefs, for instance, and yet know that if one had been born in a different time or place, one's political views would most likely be different. Certainty, then, is to be convinced in such a way that one is further convinced that such conviction itself cannot be otherwise, and that this further conviction also cannot be otherwise, and so on, as far upward into higher-order beliefs as one cares to go.

When authors invoke certainty as a requirement on knowledge (*'ilm* or *scientia*), however, it is often difficult to know whether they mean it in a subjective

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[12] See Deborah L. Black, "Knowledge (*'ilm*) and Certitude (*yaqīn*) in al-Fārābī's Epistemology," *Arabic Sciences and Philosophy* 16 (2006) 11–45.

[13] The translation is that of McGinnis and Reisman, *Classical Arabic Philosophy*, p. 64 (slightly revised). The relevant parts of the *Kitāb al-ḥurūf* are translated in Muhammad Ali Khalidi, *Medieval Islamic Philosophical Writings* (Cambridge: Cambridge University Press, 2005) pp. 1–18. See also Avicenna: "certitude is to know that you know, and to know that you know that you know, *ad infinitum*" (as quoted in Black, "Knowledge and Certitude," n. 68). Al-Ghazālī similarly takes for granted the link between demonstrative knowledge and certainty: "know that true demonstration is what provides necessary, perpetual and eternal certainty that cannot change" (as translated in McGinnis and Reisman, *Classical Arabic Philosophy*, p. 239). See also Farid Jabre, *La notion de certitude selon Ghazali dans ses origines psychologiques et historiques* (Paris: Vrin, 1958). For a broader discussion of Islamic scientific methodology, see Jon McGinnis, "Scientific Methodologies in Medieval Islam," *Journal of the History of Philosophy* 41 (2003) 307–27.

or objective sense. Al-Fārābī's definition focuses on the subjective sense, but of course mere subjective certainty can hardly be sufficient for perfect knowledge. The difference between the subjective and objective senses is brought out clearly in the Latin tradition by Buridan, who insists that both are required, and who then goes on to distinguish between two sorts of objective certainty:

In the genus of human cognition there are several kinds of certainty and evidentness. On our part, certainty should not be called that of *scientia* or assent unless it is firm – that is, without fear [of the opposite]. On the part of the proposition, one sort of certainty is that which pertains to a proposition so firmly true that there is no power by which it (or any like it) can be made false . . . Another human certainty on the part of the proposition obtains because the proposition is true and cannot be made false by any natural power and natural manner of action, although it can be made false by a supernatural power and in a miraculous manner.

(*Summulae de dialectica* VIII.4.4, tr. Klima, p. 709)

Subjective certainty consists in the subject's confidence. Buridan takes for granted here the standard scholastic characterization of opinion as a less perfect cognitive state in which we assent to a proposition, but with some concern that the opposite might in fact be true. A minimal condition on *scientia* is that it be distinguished from mere opinion by a sufficient degree of confidence in the proposition believed. A further condition on *scientia*, according to Buridan, is objective certainty, which concerns the truth of the object believed – a proposition that will be certain insofar as it is necessarily true. Here he distinguishes two kinds of necessity, which are plainly versions of what are now called logical and natural necessity.

In the elided parts of the quoted passage, Buridan uses this distinction between two kinds of necessity to respond to Nicholas of Autrecourt's notorious arguments for a nearly global skepticism (see Chapter 28). If propositions must be certain in the first, stronger sense, then there is almost nothing of which we have certain knowledge. Yet, as he points out: "This sort of certainty is not required for *scientiae* that are natural or metaphysical, let alone in the arts or in practical matters" (ibid.). In the natural sciences, the second sort of certainty is sufficient. And in practical matters, we do not require even that much. Here Buridan describes a third and still weaker form of certainty:

Yet there is still another weaker evidentness that suffices for acting well morally. This goes as follows: if someone, having seen and investigated all the attendant circumstances that one can investigate with diligence, judges in accord with the demands of such circumstances, then that judgment will be evident with an evidentness sufficient for acting well morally – even if that judgment were false on account of invincible ignorance concerning some circumstance. For instance, it would be possible for a judge to act well

and meritoriously by hanging a righteous man because through testimony and other documents it sufficiently appeared to him in accord with his duty that that good man was a bad murderer.

(*Quaest. Metaph*. II.1, ed. 1518, ff. 8vb–9ra)

This notion of moral certainty would become extremely influential in the seventeenth century, as a strategy for replying to skepticism.[14]

What makes Buridan's moral certainty particularly interesting, however, is not that it weakens the notion of certainty to a point where it is applicable to our practical lives, but that it adds something crucial to any workable systematic account of objective certainty – namely, the notion of a thing's being certain relative to a body of evidence. If we follow the *Posterior Analytics* and focus only on necessary truths (logical or metaphysical), then this notion of relative certainty has no application. The propositions in question will be necessarily *simpliciter*, and our only task will be to produce a syllogism showing why they are necessary. But if we attempt to apply the theory to the contingent truths of everyday life, then we need to consider whether a proposition is certain relative to the evidence that we have for it: is it, for instance, certain that a man is guilty, given the testimony we have heard? Such considerations blur the distinction between demonstrative and dialectical reasoning, and open the door to a wide range of new questions that would emerge in the modern era regarding probability and reasoning in light of probabilistic evidence.

[14] On the later history of moral certainty, see Henry van Leeuwen, *The Problem of Certainty in English Thought: 1630–1690* (The Hague: Nijhoff, 1970). For further discussion of Buridan's views on certainty, see Jack Zupko, "On Certitude," in J. Thijssen and J. Zupko (eds.) *The Metaphysics and Natural Philosophy of John Buridan* (Leiden: Brill, 2001) 165–82. More generally, see Peter King, "Jean Buridan's Philosophy of Science," *Studies in History and Philosophy of Science* 18 (1987) 109–32.

DIVINE ILLUMINATION

TIMOTHY NOONE

Illumination has an intriguingly complex history, which could be approached in many different ways. One could trace the philosophical evolution of the theme of light as a metaphor for understanding intellectual cognition, in which case our treatment would have to commence with the discussion of intellectual cognition among the major figures in Greek philosophy, especially Plato and Aristotle, both of whom regularly employed the metaphor of light in their efforts at grappling with the mysterious nature of intellectual cognition.[1] Alternatively, one could focus on theories of human intellectual cognition that appeal to intellects higher than ours but still not divine to account for how human intellectual activities are possible. But the object of the present chapter, more narrowly still, is to trace out the theory of *divine* illumination – that is, the theory of how God's light is required to account fully for how humans are capable of attaining the truth that they manage to attain through their intellectual activities. Considered in this way, the philosophical story we shall trace begins with Augustine, though the figures we shall be focused upon mainly are thirteenth-century philosophers. The reason for targeting thirteenth-century figures is that, although the texts of Augustine that inspire the theory were well known throughout the Middle Ages, it was only in the late twelfth and early thirteenth centuries that philosophers writing in Latin began to perceive, largely through their acquaintance with the recently translated Arabic sources and translations of Aristotle, that an alternative approach to that of Augustine was a genuinely viable option. Hence, prior to the thirteenth century, one might speak of the theme of divine illumination, but not a theory of divine illumination. The theory of divine illumination is something that occupies Latin philosophers' attention for about a century, eventually yielding to accounts of intellectual cognition in which no or little appeal is made to the divine light.

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[1] R. E. Houser, "Philosophical Development through Metaphor: Light among the Greeks," *Proceedings of the American Catholic Philosophical Association* 64 (1990) 75–85.

AUGUSTINE

Augustine advances his view of divine illumination in various texts throughout his literary career. A handy text for seeing one of the considerations that lead him to do so is his famous discussion of language in the dialogue *De magistro.* There Augustine and his son, Adeodatus, eventually reach a conclusion opposed to the one that seemed so clear at the outset of their discussion: they conclude that words do not ultimately teach us anything unless we are acquainted previously and directly with the items to which they refer. Applied to the order of items of intellectual acquaintance, this outlook on language requires that there must be universal types that we "see" in the light of truth, inasmuch as we are not necessarily acquainted with the same individuals and do not "see" the truth of such universals in each others' minds. We might, accordingly, label this the argument from the identity and permanence of the intelligible object. The unchanging commonality and universality of the types seem to warrant their being available in a light superior to our minds or to the minds of any other creatures.

This argument, though prominent in other texts as well, competes with two others in Augustine's outlook. One of these arises from the historical context that influences so much of Augustine's thinking – namely, the thought of Plato and the Neoplatonism of Plotinus and Porphyry. Plato argued for the claim that number is a basic notion not able to be gotten out of the objects of experience, since any example of a given number of things or of a sensible whole possessing parts presupposes a prior acquaintance with the concept of *unit* or *whole*. These concepts are a necessary condition for grasping that there is a number of things, or that there is one whole thing composed of parts.[2] In Augustine's presentations of this claim, the range of objects underivable from ordinary sense experience is expanded to include moral virtues and moral principles, but in both cases the point is the same: such objects inform our thinking and are true of the sensible examples to which we apply them in judgments, but they cannot be items epistemically available to us simply through sense experience. They must instead be prior to the items of sense experience and made available to us in a light present both to our minds and to those of all other intellectual creatures.[3]

The final consideration to which Augustine appeals is the eternity of truth, a version of the same kind of incommensurability between sensory experience and intellect that Plato invokes, but now occurring at the level of judgment and not only simple apprehension. Certain truths, such as *Every whole is greater than*

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[2] Plato, *Republic* 524e–525a; *Philebus* 14e–15c. Cf. Plotinus, *Enneads* IV.4, VII.3, VIII.9.
[3] See for example Augustine, *De libero arbitrio* II.9.27.

its parts or *Seven and three equal ten* or *Justice is to be sought and injustice opposed*, seem to be such that they would hold in the absence of any sensible items or situations answering to their descriptions; indeed, they would hold even if no creatures existed. Yet this observation seems incompatible with the idea that what makes them true – their truthmakers, if you will – are just created items of a certain type; their truth is unchangeable and eternal, and yet all creatures are changeable and temporal. Hence Augustine concludes that neither the creatures to which such notions apply nor the finite minds that understand such truths are the ultimate source of such truths. Rather, the source lies in something prior both to the creatures known and to the creatures knowing – namely, it lies in God, who is the Eternal Truth enlightening the mind.[4]

Augustine's view of divine illumination is rich in its suggestiveness, but not very well developed in terms of details. For example, another feature of his epistemology is the claim that the types with which we are acquainted through the divine light are the divine ideas through which God makes and forms creatures. But exactly how the considerations described above are to be understood in reference to the divine ideas as models of creatures is left underdeveloped by Augustine, something that explains both the subsequent appeal of Augustine's philosophy of knowledge and its perennial currency in various later theories of knowledge, inasmuch as practically all later thinkers, illuminationists and non-illuminationists alike, seem to find something in Augustine's views worthy of preservation and adaptation.

ANSELM

The most important continuator of Augustine prior to the entry of the Aristotelian tradition into the Latin West at the end of the twelfth century was undoubtedly St. Anselm. Anselm certainly thought of himself as a faithful disciple of Augustine and explored in much finer detail many of Augustine's ways of thought. Prominent among the latter were Augustine's ideas on truth, studied by Anselm at length in his dialogue *De veritate*. According to Anselm's teaching in this dialogue, truth is an uprightness that is perceptible to the mind alone; it is an awareness that things are as they ought to be, and that they conform to their ultimate measure in the divine mind. What this means is that the truth found in creatures consists in their conformity to their eternal divine models. It cannot be adequately explained simply by appealing to the conformity of finite minds with the objects of their immediate awareness. This kind of "horizontal" approach was favored, seemingly, by the notion of logical truth expressed by

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[4] Ibid., II.12.33–15.39.

Aristotle in the saying that theoretical truth consists in thinking of and saying something that is that it is and of something that is not that it is not.[5] The horizontal approach overlooks a crucial feature of creatures, namely, their being expressions of the eternal truth of God, which suggests in turn that we can speak of their essences as true when they conform to their divine models. Hence to know the truth of creatures involves not simply being aware of them, but also, however slightly, being aware of their "vertical" relation to the divine mind. The eternality of truth, as that theme is found in both Augustine and Anselm, points to there being one eternal truth behind all expressions of truth, both in the created objects and in our thoughts about them, mental, spoken, and written. Although we may say there are many truths, this is the case only in a manner of speaking, just as we may say there are many times because there are many objects in time, when actually there still would be time even if those particular objects did not exist (see, for instance, Anselm, *De veritate* 13).

AVICENNA

Resources in Latin for philosophical psychology were limited up until the late twelfth and early thirteenth centuries; here, as in epistemology, the main source for most authors was Augustine, and in particular the *De Trinitate*. This picture began to change rapidly after 1170, when the writings of Avicenna appeared in Latin translation, many of them done by the Spaniard Dominicus Gundisalvi. For our purposes, the most influential passage is the following:

We shall first remark that the human soul is something that first understands potentially and then understands actually. Every thing, however, that passes from potency to act does so only through a cause that is actual and draws the potential principle to actuality. There must exist, therefore, a cause through which our souls pass, in regard to intelligible realities, from potency to act. But the cause that gives the intelligible form can only be an Intelligence in act and in which the principles of intelligible, abstract forms abide.

The comparison of this Intelligence to our souls is akin to the relation of the sun to our faculties of sight. For just as the sun is an object of sight in its own right and actually, and things are seen by its light actually that were not formerly visible, so too for the disposition of this Intelligence to our souls. For when the rational power considers individual items that are found in the imagination and is enlightened (*illuminatur*) by the light within us of the Agent Intelligence (of which we have spoken previously), the objects cognized become abstracted from matter and its concomitants, and are impressed on the rational soul. It is not that the objects of the imagination are changed into our intellect, or that the notion (*intentio*) found in many makes something like itself in the

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[5] Aristotle, *Metaphysics* IV.7, 1011b25–30. Cf. *De interpretatione* 9, 18a36–b5.

intellect (for the notion is abstract, insofar as it is considered in itself) – rather, from the consideration of these things in the imagination, the soul is rendered apt to receive the abstraction emanating into it from the Agent Intelligence.

(*Liber de anima* [*Shifāʾ*] V.3)

What Avicenna is describing is clearly the process whereby intelligible contents come to be possessed by our minds. Yet, despite the dematerialization or "abstraction" to which he adverts, which seems akin to a process of eliciting the actual intelligible from the potentially intelligible found in the imagination, it is clear that the actual intelligible as such comes from the Agent Intelligence upon the occasion of the human mind's considering the items found in the imagination. Hence, the intelligible results not so much from the mind's abstraction as from an emanation from above. Latin readers from Gundisalvi to Roger Marston in the last quarter of the thirteenth century could not resist seeing in this Agent Intelligence the Divine Mind, although the Agent Intelligence to which Avicenna himself refers is actually the tenth of a series of intelligences emanating from the one Necessary Being and is thus, in Christian terms, a creature. The thirteenth-century Latin tendency to combine elements taken from Avicenna with the more traditional psychology and epistemology of Augustine and Anselm has been called by Étienne Gilson *Augustinisme avicennisant*, and it is certainly one recurring pattern in the Latin illuminationist tradition.[6]

GROSSETESTE, RUFUS, AND BONAVENTURE

Prior to Robert Grosseteste in the Latin West, several lesser figures invoked the sort of illumination we have been discussing,[7] but Grosseteste is the first to treat these issues in detail. In his *De veritate*, a work dating in all probability to the period of his theological teaching at the Franciscan house in Oxford (*ca.* 1229–36), Grosseteste treats the central issue that emerged at the end of Anselm's own *De veritate* – namely, the unity and multiplicity of truth. According to Grosseteste, the conformity of created things to the speech (*sermo / verbum*) of the Father is their truth, for that is what they ought to be and is the rightness perceptible to the mind that Anselm describes as the truth of the essences of

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[6] Étienne Gilson, "Les sources gréco-arabes de l'augustinisme-avicennisant," *Archives d'histoire doctrinale et littéraire du moyen-âge* 4 (1929) 5–149; "Avicenne en occident au moyen-âge," *Archives d'histoire doctrinale et littéraire du moyen-âge* 36 (1969) 89–121; "Pourquoi saint Thomas a critiqué saint Augustin," *Archives d'histoire doctrinale et littéraire du moyen âge* 1 (1926–7) 5–127. See also Roland de Vaux, *Notes et textes sur l'avicennisme latin aux confins des XIIe et XIIIe siècles* (Paris: Vrin, 1934).

[7] Chief among them is John Blund. See his *Tractatus de anima* ch. 25 sec. 23 (ed. Callus and Hunt, nn. 372–5).

things. In fact, according to Grosseteste, the Anselmian definition embraces both the highest truth and the truth of things, though it expresses the former as the rightness that rectifies all others and the latter as a rightness that is made right (ed. Baur, p. 135). Falsity is just the failure to conform to the speech of the Father, whereas, conversely, truth is lack of defect or, more accurately stated, the fullness of being (*plenitudo essendi*). Yet there is a twofold being of things, Grosseteste tells us: their *primum esse*, which is their metaphysical or ontological constitution, such as the union of soul and body in a human being; and their *secundum esse*, which is the activities or functions that an entity should have, such as honesty in a human being. If we utter a proposition such as 'A human is an ass,' we utter something that has a kind of truth as *primum esse* – it is, after all, a meaningful statement or proposition – but it entirely lacks *secundum esse* because it fails to state what is the case (ibid., pp. 135–6).

Grosseteste's position on truth, as one can readily see, is quite heavily indebted to Anselm. Regarding the issue of whether truth is one or many, however, he takes a different position, arguing that truth must be many and not one. His reason is that the term 'truth' would not be capable of distribution (that is, being said of many things) if there were not many truths, for the comparison of one thing to many things does not produce a genuine plurality. So, by implication, what stands against Anselm's view that all truth is one and the Highest Truth is just that we do speak of many truths, and that our doing so cannot be rendered plausible without there being many truths and not simply many true things (ibid., pp. 138–9).

The strong commitment that Grosseteste makes to a multiplicity of truths dominates his consideration of two issues bearing upon illumination: first, whether other lights of truth besides that of the Highest Truth are rendered superfluous if the Highest Truth is sufficient for showing all truth; second, whether we can make any sense of the truth of a created thing understood as a conformity to the eternal reason (the *ratio aeterna*) in the divine mind without our being aware of the divine mind as such. (On the eternal reasons as divine exemplars, see Chapter 6.) Grosseteste's reply to both of these doubts hinges on an analogy he proposes for how the human mind grasps truths. The human mind's way of understanding may be aptly compared to our seeing a colored body. In the absence of light, a person may not see anything at all in a colored body, yet light is not color; color may be called "embodied light" but it nonetheless is distinct from light in the sun and the medium. Likewise, the human mind cannot grasp the concrete essence (*id quod est*) of creatures without the light of the eternal reason shining upon the object and the mind; the created truth discloses the created essence, but only under the light of the Highest Truth (ibid., pp. 137–8). That is precisely why the light of the Highest

Truth does not render another light superfluous and that is why, too, we do need to be in contact with the eternal reason somehow to surmise a conformity to the eternal exemplar. The light of the Highest Truth cannot substitute for the light of the created essence (or that of the mind, presumably), any more than the light of the medium or the source can substitute for the color of the colored body. In a word, although we do not see the divine mind or its eternal *ratio*, we perceive truth through that eternal reason, just as we see through light and things in light, yet scarcely notice the light. The eternal reason is present to our minds, but in a manner so self-effacing as to be readily overlooked. Hence, those who are unclean of heart never notice what it is that allows them to know (ibid., p. 139).[8]

Grosseteste's case for postulating divine illumination rests largely on the immutability of the truths we know. This is most clearly seen, perhaps, in the case of first principles, but nearly any intelligible truth will do. The simple fact of the matter, for Grosseteste, is that the fixity and stability of the truths we know about creatures could not arise solely from creatures, even if the content of what we know does. The basic reasoning for this claim is that things cannot give what they do not have. If there is no absolute fixity in created things, created things cannot generate constancy of meaning even if they in some way express that meaning.

If Grosseteste's theory is largely a continuation of Anselm, with agonizingly few details regarding how human psychological faculties relate to the divine light, the same cannot be said of the views of Richard Rufus of Cornwall, Bonaventure, or most of the other later figures in the illuminationist tradition.[9] On the contrary, they felt the need to clarify precisely what the human faculties could and could not attain through their activities so as to articulate precisely how and why divine illumination is needed.

Rufus's texts on illumination, although few in number, are extremely interesting. Regarding the role of the agent intellect, he suggests that it is a part of the soul just as much as the possible intellect is. However, he also treats it as analogous to memory in Augustine's Trinitarian anthropology, and he makes it the source of actual awareness – indeed, he treats it as aware in its own right of

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[8] For a study of Grosseteste's doctrine of truth, see Steven Marrone, *William of Auvergne and Robert Grosseteste: New Ideas of Truth in the Early Thirteenth Century* (Princeton, NJ: Princeton University Press, 1983).

[9] For information on how Grosseteste's thinking impacted Parisian authors, see Camille Bérubé and Servus Gieben, "Guibert de Tournai et Robert Grosseteste: sources inconnues de la doctrine de l'illumination suivi de l'édition critique de trois chapitres du *Rudimentum doctrinae* de Guibert de Tournai," in *Sanctus Bonaventura: 1274–1974* (Grottaferrata: Collegium Sancti Bonaventurae, 1973) 627–54.

things that the individual human being is not aware of.[10] The precise role of
God's light, according to one of the few texts that deals with the matter, is to
render more fully intelligible the items not made fully intelligible by the human
agent intellect.[11] What this may mean historically is that Rufus is one of the
very first authors to suggest the subsequently commonplace hypothesis of two
agent intellects, one divine and the other human.[12]

Although Bonaventure's theory relies on many of the same sources as Gros-
seteste's, his appreciation of the role of the human intellectual faculties in the
process of ideogenesis and his own metaphysical views on creation cause him to
have a unique view in the history of illuminationism. To start with the former
point, Bonaventure offers an account of how the agent and the possible intel-
lects can be said to be two distinct powers and yet still belong to the soul. He
rejects any suggestion that these intellects are distinct entities in the category
of substance, whether that effort identifies the separate agent intellect with an
Intelligence (as in Avicenna) or even with God (a view some were trying to
read into Augustine, and that would soon be reworked in theorists such as
Roger Marston). Instead, Bonaventure insists that the two intellects, agent and
possible, are parts of the human soul that function as coordinated but interde-
pendent causes in the activity of knowing. Each is, in a way, both active and
passive, inasmuch as the agent intellect is passive with respect to the phantasm
that it requires for abstraction, and the possible intellect exercises the activity of
knowledge once it is prompted by the agent intellect (*Sent.* II.24.1.2.4c). The
process of abstraction and consequent intellection are normal and natural for
the human soul in all of its conditions: prior to the fall, after the fall, and in
the perfected resurrected state. Hence there is no room in Bonaventure's theory
for the view proposed by Rufus – namely, that the agent intellect is the only
permanent and essential part of the mind, and that it knows things that the
individual human being does not (*Sent.* II.24.1.4 ad 5–6).

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[10] Rufus, *Scriptum super Metaphysicam* XI d. 2 lect. q. 3 V (ed. Timothy Noone, *An Edition and Study
of the Scriptum super Metaphysicam, bk. 12, dist. 2* [Ph.D. dissertation: University of Toronto, 1987],
p. 216). Note that before William of Moerbeke's translation of *ca.* 1265, Bk. XI = Lambda (the
modern Bk. XII).

[11] Rufus, *De ideis* (Prague ms. 1437, ff. 35va–36ra; Erfurt ms. Q. 312, fol. 84ra). For Rufus's explanation
of physical light, see Timothy Noone and R. James Long, "Fishacre and Rufus on the Metaphysics
of Light," in J. Hamesse (ed.) *Roma, magister mundi: Mélanges offerts au Père L.E. Boyle* (Louvain-la-
Neuve: Féderation internationale des instituts médiévales, 1998) I: 517–48.

[12] See Leonard Bowman, "The Development of the Doctrine of the Agent Intellect in the Franciscan
School of the Thirteenth Century," *Modern Schoolman* 50 (1973) 251–79; Jean Rohmer, "La théorie
de l'abstraction dans l'école franciscaine de Alexandre de Hales à Jean Peckham," *Archives d'histoire
doctrinale et littéraire du moyen âge* 3 (1928) 105–84. On Bacon's and Rufus's views of the agent
intellect, see Timothy Noone, "Roger Bacon and Richard Rufus on Aristotle's *Metaphysics*: A
Search for the Ground of Disagreement," *Vivarium* 25 (1997) 251–65, esp. pp. 256–7.

Bonaventure argues for illumination by examining the transcendental framework within which human knowledge transpires – its foundation in the transcendental concepts of being and true – and by insisting on the incommensurability between human (or angelic) knowers and the eternal truths that are the foundation for their knowledge. What makes Bonaventure's case for the transcendental framework so closely connected with his doctrine of abstraction is that, in his metaphysics, each creature is a natural sign of its respective divine idea. Consequently, the more the human mind delves into the particular item it knows through sense experience, the more it is redirected toward the exemplar that is the eternal source of intelligibility for the item known.

Bonaventure exploits the transcendental framework within which the human mind functions by beginning with the commonplace view, derived from Avicenna, that being is the first object known. According to the doctrine of Bonaventure's *Itinerarium*, continued reflection upon the notion of *being* will cause the mind to understand being in its fullness: pure being that lacks no perfection (ch. 5). In a word, implicit in the notion of *being* that is the first object of the human mind is the notion of *Being* that belongs exclusively to God. Hence, God and his light are the precondition for knowing whatever it is that we do know. We should, however, be leery of identifying this notion of the divine being's intentional presence in our most fundamental notion with an innate idea of God, even though there appears some surface resemblance to René Descartes's later views. Bonaventure is aware of teaching of this sort – in his time it is found in Thomas of York and, at a certain stage of his career, Roger Bacon[13] – but he explicitly rejects it (*Sent.* II.24.1.2.4c). Instead, the notion of *being* functions like a sign pointing to the eternal source of all knowledge, and so there is a kind of reflection or abstraction involved in reasoning that reaches God.

When Bonaventure argues explicitly and directly for the thesis of divine illumination in his *Disputed Questions on the Knowledge of Christ*, he focuses upon the issue of eternal truths and their incommensurability with the human mind and the created things in which those truths are expressed. Taking up examples found in Augustine, Bonaventure argues that the fact that we know mathematical, moral, and metaphysical truths that cannot fail – truths that would be true whether or not creatures exist – is a sure indication of the presence of the divine light to the human mind in its knowledge. Alternative explanations that try to locate the source of such truths in the world or in the human

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[13] See Thomas of York, *Sapientiale* VI.26, as cited in Matthew of Aquasparta, *Quaestiones disputatae de fide et de cognitione* (Quaracchi: Collegii S. Bonaventurae, 1957) p. 257; and Roger Bacon, *De multiplicatione specierum* 1.3 (ed. Bridges, *Opus maius* II: 433).

mind undercut themselves immediately, for neither the object known nor the human knower has the characteristics of the truths known and hence neither can be the total source of human intellectual knowledge. Bonaventure does not, however, deny a role to sense knowledge or abstraction (as we have already seen) in intellectual knowledge; the senses and the intellect are partial causes in the production of the act of knowledge, cooperating with the divine light. The latter is described by Bonaventure as a "regulating and moving cause," combining with the human soul's causality to produce the act of knowledge. Though the point remains somewhat disputed, the most plausible reading of Bonaventure's theory of illumination is that he takes the divine light to guide our intellectual acts of judgments, both simple and complex, and that he thus holds that the divine light is present in all our acts of intellectual knowledge.[14]

MATTHEW OF AQUASPARTA, JOHN PECHAM, AND ROGER MARSTON

Of all Bonaventure's disciples, the most faithful in many ways was Matthew of Aquasparta, who taught at Paris in the late 1270s. Yet, when we read his *Disputed Questions on Cognition* from that period, we are immediately alerted to a change since the time of Bonaventure's teaching in the 1250s: the doctrine of Thomas Aquinas has now impacted the way in which defenders of divine illumination present their views. In Matthew's case, we see this in his references to "philosophically minded authors" who follow Aristotle's teaching in such a way that God's light is only a general cause of human cognition and that the light referred to by Augustine is a designation for the human agent intellect and its connatural light. Aquinas's proposal, as early as his own *Disputed Questions on Truth*, was that human intellectual cognition is explicable naturally by reference to natural causes, presupposing only the intelligibility of the world and the creation of the human intellect with its natural dispositions. Matthew tries to counteract Aquinas's teaching by arguing, in the fashion of Bonaventure, that the very immutable and eternal character of the truths known means that there must be an eternal and immutable principle directly involved in our knowing.[15] Matthew also adverts to several of the considerations found in Bonaventure and earlier thinkers: that the truth of the creature just is its conformity to the divine exemplar; that the being of anything cannot be analyzed fully without ultimate

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[14] Bonaventure, *Quaest. de scientia Christi* 4 ad 12 s.c. For a discussion of this point, see Steven Marrone, *The Light of Thy Countenance: Science and Knowledge of God in the Thirteenth Century* (Leiden: Brill, 2001) ch. 5; Bernard Gendreau, "The Quest for Certainty in Bonaventure," *Franciscan Studies* 21 (1961) 104–227; Christopher M. Cullen, *Bonaventure* (Oxford: Oxford University Press, 2006).

[15] *Quaest. de cognitione* 2c (ed. Quaracchi, pp. 238–9).

reference to being in its fullness found in God; and that creatures are signs that point to God. Matthew conceives of the divine light as working only as a means (*quo*) for our knowing, a means not merely as an efficient cause in the act of knowledge but also as a formal cause, allowing us to see in and through it.[16]

We find quite a different response to Thomism and Neo-Aristotelianism in the writings of John Pecham and Roger Marston. Pecham's teaching as the Franciscan regent master of theology at Paris (beginning in 1269) overlapped with Aquinas's second regency in the Dominican chair of theology, so he was quite familiar both with Aquinas's naturalistic account of intellectual cognition and with similar views proposed by contemporary arts masters. One of Pecham's strategies is to argue, following the line of interpretation advanced earlier by Roger Bacon,[17] that Aquinas and the arts masters have not correctly understood Aristotle, their favored authority. What Pecham proposes in this regard, drawing perhaps on Rufus's suggestions, is a clear doctrine of two agent intellects: one uncreated or divine, to which certain texts in Aristotle's *De anima* III refer, and another created human agent intellect (*Tractatus de anima* 5). The function of the uncreated agent intellect is, in part, to render the human agent intellect actual so that the latter can engage in acts of abstraction. There is also a second function for the divine agent intellect: it provides the means of knowing whereby the human intellect knows immutable truths, especially the truths of first principles such as *Every whole is greater than its parts*.

Pecham exploits the putatively episodic nature of human intellection to argue that, given the Aristotelian tenet that all our understanding occurs in time, and given that no two objects can be simultaneously understood, it follows that there must be a "place" wherein the entire proposition *Every whole is greater than its parts* may be grasped. Otherwise, Pecham argues, the proposition could never be grasped as such and thus its truth could never be known. The "place" where the truth of such a self-evident proposition is known is the divine light ever present to the human mind in its acts of knowing.

Apart from this curious psychological argument, Pecham also advances the by now commonplace arguments regarding immutable and eternal truths and their incommensurability with the nature of the human mind and the created things of the world (*Quaest. disputatae*, *De anima* q. 6 n. 55). In explaining how the divine light is present to the human mind, moreover, Pecham emphasizes that it is never known directly, but functions as a completely self-effacing means of knowing (*ratio cognoscendi*), after the fashion of the sensible species of color. If pressed to identify its mode of causality, Pecham thinks of the divine

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[16] Ibid., pp. 234–5. [17] Roger Bacon, *Opus maius* II.5 (ed. Bridges, suppl. vol., pp. 44–9).

light as a quasi-efficient cause. As an analogy, he invokes the manner in which the sensible species coming in through both eyes form a single species in the optic nerve. In like fashion, the single composite act of knowledge comes to be in the human possible intellect from the diverse causalities of the divine light and the agent intellect (ibid., nn. 75–6).

Roger Marston, a disciple of John Pecham, follows his master's teaching on many points, including the positing of two agent intellects, divine and human. The philosophical argumentation advanced by Marston, however, leans heavily upon an element that was somewhat neglected by earlier authors: the identity of the intelligible object. According to Marston, the way Aquinas and others understand Aristotle would, by making the intelligible light interior to a given individual human soul, also make the objects seen in that light private and hence not commonly available to all. Returning to the texts of Augustine, Marston challenges anyone to understand what Augustine means by the claim that we all see in a common light, if the light in question is identical to a power of any individual human soul (*Quaest. de anima* 3c, ed. Quaracchi, p. 253). He thereupon sketches out his own understanding of how the divine light relates to the light that, he acknowledges, arises from the human agent intellect: they are related as something that fully renders things intelligible and illuminates is related to what only partially illuminates (ibid., p. 258). The light of the agent intellect may be sufficient to abstract something of the intelligible content of the phantasms, but if the possible intellect is to perceive eternal truths, the human agent intellect must receive an impression from the divine agent intellect. This impression remains in the human mind as a created effect and, after the fashion of a signet ring impression, reflects the image of its maker, thereby allowing the human mind to attain to the immutable truths that would otherwise be beyond its reach (ibid., p. 267).

HENRY OF GHENT, VITAL DU FOUR, AND THE END OF ILLUMINATION

By the time the illuminationist tradition reaches the thought of Henry of Ghent, beginning in the mid-1270s, many of the difficulties implicit in the various attempts to explain how the divine light interacts with ordinary powers of human understanding were well known. The extent to which this is so may be readily gathered from the objections listed by the contemporary Franciscan Peter of John Olivi. Olivi puzzled in particular over both how to characterize the type of causality exercised by the divine light and how its activity, as an uncreated cause, could be coordinated with the created causality of the human mind.

At the same time Olivi acknowledged that admitting the human mind knows eternal truth seems to pose its own problems.[18] Henry of Ghent approaches the problem anew, questioning at least in part the value of our powers of sense and intellect, absent the divine light.

Henry's account of the need for divine illumination begins with his observation that, on the part of the intelligible object, the first of the transcendentals – namely, being – is logically prior to and thus intelligible apart from unity, truth, and goodness. In principle, the intellect can know the being of the thing without grasping its truth, since the latter has to do with the conformity of the thing to its exemplar and not simply the being of the thing. Henry dubs the intellect's awareness of the thing according to its being "knowing what is true within it" (*id quod verum est in ea*), as opposed to the intellect's judgment of the thing's truth (*veritas*). He proposes that the intellect can know what is true without illumination, but that it cannot know the truth of the thing without illumination. Here, unsurprisingly, Henry appeals to the authority of Augustine and Anselm, pointing to the latter's texts regarding truth as conformity to the divine mind. In terms of arguments for illumination, Henry develops three independent lines of analysis, the first two having to do with mutability and the last with epistemic reliability. Regarding mutability, Henry notes that both the created exemplar in the mind (here he means the intelligible species[19]) and the mind itself are inherently mutable. Hence neither the created exemplar nor the mind can on its own produce the stability needed for certain cognition. The epistemic reliability of the exemplar is called into question, moreover, in Henry's third argument for illumination. Since the sensible species and the intelligible species arising from it both originate in the senses, they both share in the nature of the false as well as the true; indeed, as Henry observes, we rely on the same sense images to adjudge things rightly that we use to "judge" things in our sleep or in fits of madness. Pure truth (*veritas sincera*) requires, however, that we be able to distinguish the true from the false – and it is just such a standard or criterion of judgment that the sense-based exemplar does not provide of itself. The only recourse, therefore, for the soul to attain certain and scientific knowledge is the divine light (*Summa quaest. ordinarium* 1.2 [*Opera* XXI: 43–5]).

Henry emphasizes that the divine exemplar or divine light is not attained as an object known distinctly in itself but simply as means of cognition (ibid., XXI:

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[18] Olivi, *Summa* (ed. Jansen [appendix q. 2], III: 502, 511–13).
[19] Henry later denies intelligible species: see *Quodlibet* V.14. For a discussion of this shift, see Robert Pasnau, *Theories of Cognition in the Middle Ages* (Cambridge: Cambridge University Press, 1997) appendix B.

50). This tactic was, as we have seen, a commonplace feature of illuminationist epistemologies and allowed the proponents of illumination to forestall objections about our being unaware of the divine mind. Regarding the precise mode of the divine light's influence upon us, Henry maintains that it transforms the created exemplar or intelligible species derived from the process of abstraction into the character that the divine art has given things in creation. Although in certain texts he talks as if the divine light and the human exemplar work as coordinated causes, on balance he is committed to the divine light's standing to the intelligible object present in the human mind as form stands to matter (*Summa* 1.3 [*Opera* XXI: 84–7]). It is on just this point that Henry accuses Aquinas's teaching of falling short. Aquinas has the first principles come, in a sense, from the divine light, which impresses its light upon the human agent intellect – an event that Aquinas locates at the creation of the human soul and the natural endowment of the agent intellect. Aquinas denies any further need for the divine light to interact with the human intellect beyond this initial orientation. Henry, in contrast, holds that such a theory overestimates the power of the human intellect and does not distinguish critically enough between the truths that can be obtained from sense-based images and the eternal truth.

Practically every thinker of the last decade of the thirteenth century was indebted to Henry's illuminationism. A good example of someone who defended and restated Henry's theory is Vital du Four, whose disputed questions on cognition end with a question on divine illumination.[20] Vital follows Henry in rejecting Marston's account of God as the agent intellect. Again like Henry, and contrary to what Aquinas held in his mature writings, Vital argues that the two exemplars, created and uncreated, are required for the human mind to attain pure truth (*Quaest. de cognitione*, ed. Delorme, pp. 333–7).

Although the tradition of divine illumination dominated the discussion of epistemology in the second half of the thirteenth century, by the second decade of the fourteenth illumination was no longer considered a viable option. Both modern scholars and their Renaissance predecessors have questioned whether this ought to have occurred, but historically speaking there can be no doubt that the non-illuminationist account of mind, first advanced by Aquinas and then developed into a thoroughgoing theory by Scotus, displaced illumi-nationism. The focus of epistemology shifted from the problem of eternal truth and certainty to the topic of universal knowledge analyzed through competing versions of intuitive and abstractive cognition. When the problem of eternal truths was later revived in the generation of Francisco Suárez and Descartes, the

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[20] See John Lynch, *The Theory of Knowledge of Vital du Four* (St. Bonaventure, NY: Franciscan Institute, 1972).

illuminationist tradition was all but forgotten.[21] Whether this judgment of the centuries is final remains to be seen, for the problem of eternal truth seems to have a surprising resiliency.

[21] Armand Maurer, "St. Thomas and Eternal Truths," in *Being and Knowing: Studies in St. Thomas and Later Medieval Philosophers* (Toronto: Pontifical Institute of Mediaeval Studies, 1990) 43–58; also "St. Thomas and Historicity," ibid., 95–116. For an analysis of the transition from illuminationist to non-illuminationist epistemologies, see Timothy Noone, "The Franciscans and Epistemology: Reflections on the Roles of Bonaventure and Scotus," in R. Houser (ed.) *Medieval Masters: Essays in Memory of Msgr. E.A. Synan* (Houston, TX: Center for Thomistic Studies, 1999) 63–90.

28

SKEPTICISM

DOMINIK PERLER

Searching for skepticism in medieval philosophy seems to be a vain enterprise, because no philosopher in the Christian tradition radically doubted or even denied the possibility that human beings can have knowledge. Nor did thinkers in the Jewish or Islamic tradition categorically refute the claim that human knowledge is possible, despite their criticisms of the incompleteness and fallibility of our cognitive faculties. All of them agreed that our faculties enable us to acquire a wide range of knowledge – of material things as well as of mental, mathematical, and other intelligible objects. Their main concern was not to establish *that* we can have knowledge but to explain *how*, that is, by what kind of cognitive mechanism, we are able to acquire it. There is no evidence that they were interested in Pyrrhonism, one of the main forms of ancient skepticism that aimed to show how one can reach "mental tranquility" and a happy life by suspending all beliefs. Although a Latin translation of Sextus Empiricus's *Outlines of Pyrrhonism* was available before 1300, this key text had no visible impact on debates in Western Europe.[1] All philosophers in the Latin tradition subscribed to the thesis that we are entitled to have beliefs; they even claimed that we need beliefs to choose specific actions and to pursue a happy life. Thanks to Cicero's *Academica* and Augustine's *Contra academicos,* Academic skepticism, the second major form of ancient skepticism, was to some extent known during the Middle Ages. But it did not spark an extensive debate or a "skeptical crisis."[2] Medieval authors in the Latin West occasionally referred to skeptical arguments and examples presented in these texts (such as cases of sensory illusions and dream experiences), but without drawing radical skeptical conclusions.

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[1] See Roland Wittwer, *Sextus Latinus: Die erste lateinische Übersetzung von Sextus Empiricus' Pyrrhoneioi Hypotyposeis* (Leiden: Brill, forthcoming). Only a later translation of Sextus Empiricus's text (printed 1562) created a new interest in Pyrrhonism.

[2] Only Renaissance authors discussed these texts in detail, as Charles Schmitt, *Cicero Scepticus. A Study of the Influence of the Academica in the Renaissance* (The Hague: Nijhoff, 1972) has pointed out.

How can we legitimately speak about skepticism in medieval philosophy when no author denied that belief and knowledge are possible? To answer this question we need to distinguish between different attitudes toward skepticism. A philosopher can take a skeptical *position* by straightforwardly rejecting the thesis that knowledge is possible and by systematically destroying knowledge claims. But one can also choose a skeptical *method* by presenting arguments that refute a certain conception of knowledge and attempt to introduce a new one – a conception that is supposed to give a better explanation of what knowledge is and how it can be acquired. A number of medieval authors made methodological use of skepticism in this sense: they appealed to skeptical arguments in order to work out a satisfying account of knowledge, to defend it against rival accounts, and to test its explanatory force. This chapter illustrates that use by focusing on some key scholastic philosophers in the Latin tradition.

HENRY OF GHENT, SCOTUS, AND THE POSSIBILITY OF ESSENTIAL KNOWLEDGE

One of the first medieval authors in the Latin tradition who made explicit methodological use of skeptical arguments was Henry of Ghent. In the opening questions of his *Summa quaestionum ordinariarum* (*ca.* 1276), he claims that one cannot reasonably defend the view that knowledge is possible unless one has a clear concept of what knowledge is. Accordingly, he carefully distinguishes two understandings of knowledge that give rise to two different types of knowledge claims. Understood in a broad sense, knowledge is "every certain cognition by which a thing is known as it is, without any error and deception" (1.1, *Opera* XXI: 10). This kind of knowledge is possible, Henry states without hesitation, because our sensory capacities enable us to cognize individual items with respect to their perceptible features. Thus, when I am looking at a blossoming tree, I am perfectly capable of cognizing that there is something brown with green and pink spots in front of me. Of course, I may be deceived under special circumstances, for instance when I am seeing the tree on a foggy day or when my vision is blurred. But under normal circumstances, I successfully see it as it is, and I am even able to correct an earlier misperception. Following the Aristotelian tradition, Henry claims that the senses assimilate the sensory forms of a material thing, thus providing the basis for a correct cognition of its perceptible features (see Chapter 24).

Yet this first basic form of cognition does not exhaust all the epistemic possibilities, for one might also want to know the essence of a thing. I might, for instance, wish to know what makes the thing in front of me a tree – that is, what is responsible for its metaphysical makeup. In order to gain this kind

of knowledge, I need to have some model (*exemplar*) that indicates the typical, non-accidental features of a tree. But how can I acquire such a model? The standard scholastic answer, and the one that Henry first considers, is that I might simply abstract it from the sensory images I have received when looking at a particular tree, thus forming an "acquired model" (*exemplar acquisitum*) that can be applied in future cases.

Henry adduces three skeptical arguments against this empiricist line of reasoning (*Summa* 1.2, *Opera* XXI: 43–4). All of them were inspired by ancient sources (Cicero's *Academica* and Augustine's *Contra academicos*) that were well known to him. First, individual things that are accessible in sense perception are mutable and therefore display a variety of changing features. Grasping these accidental features does not enable us to abstract a model that presents the unchanging essential features of that thing. Second, our cognitive capacities are mutable as well. We focus on different aspects at different moments, sometimes under unreliable conditions, and therefore grasp a great variety of features. Nothing in our changing perceptual activities guarantees that we successfully abstract a stable model that indicates just the essence of a thing. Third, even if we happen to abstract such a model, there is no veracity built into it. It could be the product of a dream or a hallucination, and we would have no criterion to distinguish a veridical model that presents the real essence from a non-veridical one. Given this lack of a criterion, we can never trust an "acquired model." From this, Henry concludes that we need a second model, a stable and infallible one, that unfailingly presents the real essence. This is the "eternal model" (*exemplar aeternum*), existing in the divine mind and made accessible to us by divine illumination.[3] Only with this model can we go beyond a mere cognition of the perceptible features and know what makes each thing the very thing that it is.

Henry's appeal to an "eternal model" announces his commitment to the Platonic–Augustinian tradition of explaining human knowledge with reference to ideal entities that are neither created nor abstracted by human beings (see Chapters 6 and 27).[4] What is of interest here, however, is less the account Henry gives of this tradition than the purpose of the three skeptical arguments. Henry uses them in order to show the limits of a purely empiricist theory and to pave the way for an alternative theory that emphasizes the crucial function of a non-empirical element in human knowledge. On his view, the skeptical

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[3] See *Summa* 1.2 (*Opera* XXI: 45) and 1.3 (*Opera* XXI: 71–5).

[4] On Henry's use of this tradition, see Steven Marrone, *The Light of Thy Countenance: Science and Knowledge of God in the Thirteenth Century* (Leiden: Brill, 2001), and Robert Pasnau, "Henry of Ghent and the Twilight of Divine Illumination," *Review of Metaphysics* 49 (1995) 49–75.

arguments make clear that essential knowledge is impossible on purely sensory grounds. Although the perception of individual things suffices for knowledge in the broad sense, it cannot yield knowledge in the proper sense, because it does not provide a stable and infallible model of the essence of perceptible things. Skeptical arguments serve, as it were, as a methodological weapon to defeat the empiricists who fail to notice this crucial point. This anti-empiricist attitude motivated later authors, among them Gianfrancesco Pico della Mirandola, to repeat and endorse Henry's arguments.[5]

But is empiricism inevitably doomed to failure? And do we really need to appeal to divine illumination in order to explain the possibility of essential knowledge? John Duns Scotus, Henry's first critic, answered these questions in the negative. On his view, we can have a rich variety of knowledge, notably knowledge of analytic principles and of our own acts, without needing divine assistance (*Ordinatio* I.3.1.4). And even if we aim at essential knowledge, we do not need to have access to ideal entities. It suffices to abstract cognitive devices, so-called "intelligible species," from sensory images. Intelligible species have a specific content that is distinct from the content of the changing sensory images, and they unfailingly present the essence of material things. No matter how unstable the perceptible features of a thing may be, the intellect is, at least in principle, always capable of abstracting intelligible species that present the essential features in a stable and infallible way: the essence "shines" perfectly in the species.[6]

This reply shows that skeptical arguments gave rise to a fundamental debate about the status of human knowledge. Whereas Henry of Ghent firmly believed that knowledge in the proper sense is impossible without a foundation in ideal entities that cannot be extracted from sense experience, Scotus defended a somewhat naturalist view that explains the acquisition of essential knowledge on purely natural grounds. Both took a non-skeptical position, but both spelled it out by examining skeptical arguments.

OCKHAM, CHATTON, PETER OF AILLY, AND THE HYPOTHESIS OF DIVINE INTERVENTION

Medieval philosophers did not just discuss arguments that were already prominent in ancient debates, especially in the tradition of Academic skepticism. They also developed new arguments that grew out of their specifically Christian

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[5] See Pico's *Examen vanitatis doctrinae gentium*, ed. 1557, II: 1091–105.
[6] See *Ordinatio* I.3.3.1 (ed. Vatican, III: 235), and a detailed analysis in Dominik Perler, *Theorien der Intentionalität im Mittelalter* (Frankfurt: Klostermann, 2002) pp. 207–30.

context. One of these arguments appealed to God's omnipotence. Theological doctrine, reaffirmed in the influential Parisian condemnation of 1277, claimed that God's omnipotence is not only to be understood in an "ordinary sense," according to which God respects the natural laws in his actions, but also in an "absolute sense," according to which he is free to do whatever he likes as long as he does not violate the law of non-contradiction. Thus, God could cause a mental state in me that presents a blossoming tree, even though there is no tree in front of me. This possibility gives rise to a serious worry: how can I ever be certain that my mental states present *real* things and that I have knowledge of a *real* world if God can manipulate me at any time? To be sure, medieval theologians did not intend to invoke a capricious tyrant by referring to God's absolute omnipotence. They rather used the doctrine of omnipotence as an analytical tool in order to point out what is not only physically but also logically possible. Their aim was to test out the metaphysical realm of possibilities.[7] Nevertheless, if it is logically possible that God intervenes in our cognitive process at any time, then we seem to have no certitude that our mental states are causally linked to real things. Consequently, external world skepticism seems inevitable.

William of Ockham was well aware of the impact the doctrine of divine omnipotence has on epistemology. In his *Commentary on the Sentences* (1317–19) he explicitly mentions it and concedes that God could indeed intervene at any time and cause an "intuitive cognition" of a non-existent or non-present object. But Ockham hastens to add that this involves no deception, because in this case a person correctly judges that no object is actually existing or even present (*Ordinatio* prol. 1.1 [*Opera theol.* I: 38–9]). Only if an intuitive cognition is caused in a natural way by an actually present object does one judge that it is in fact present. Thus, there is some kind of cognitive mechanism that guarantees successful cognition and rules out deception.

This explanation clearly avoids skeptical consequences, but it has a serious drawback, as Walter Chatton, Ockham's contemporary and colleague in Oxford, was quick to point out. Why should a supernaturally caused intuitive cognition give rise only to a negative judgment? Suppose that God is causing an intuitive cognition in me of a star and that he is doing it so perfectly that I have a vivid impression of a bright celestial body that in no way differs from the impression that I would have if I were really seeing a star. Why should I then come up with the judgment that no star is actually present? The phenomenological basis is, after all, the same as in the case of a natural causation. Chatton accordingly

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7 See William Courtenay, "The Dialectic of Omnipotence in the High and Late Middle Ages," in
   T. Rudavsky (ed.) *Divine Omniscience and Omnipotence in Medieval Philosophy* (Boston: Reidel, 1985)
   243–69.

draws the conclusion that an intuitive cognition inevitably leads to a positive existential judgment, whether there really is an existing and present thing or not (*Sent.* prol. 2.3, ed. Wey, p. 102).

In response to this objection, Ockham acknowledges that God could bring about an act by which we erroneously judge that a non-existing thing exists. But he does not adopt Chatton's solution, which clearly has skeptical consequences. Instead, he revises his early position, claiming in his later *Quodlibet* V.5 that in the case of divine intervention a person has a mere act of believing, which is not an intuitive cognition. When having such an act, which God directly implants in the intellect, one makes a false judgment and therefore falsely believes that a non-existing thing exists. However, God does not tamper with the cognitive mechanisms that lead to an intuitive cognition, leaving the natural processes that provide correct judgments untouched.

This solution has the advantage of allowing for false judgments while preserving the reliability of our natural cognitive processes. It does not, however, exhaust all skeptical questions. How can someone who falsely believes that a non-existing thing exists distinguish this belief from a correct judgment based on an intuitive cognition? Ockham does not provide any criteria that would enable a person to identify a mere act of believing; nor does he indicate any phenomenological features that would characterize such an act. This means, of course, that he acknowledges the possibility that a person could mistake a false act of believing for a correct judgment: there is no absolute certainty. Does he thereby open the door to radical external-world skepticism? This suggestion may be tempting, but on a closer look at Ockham's entire epistemological program, it is hardly convincing.

First, one should take into account the fact that Ockham (unlike René Descartes) never introduces radical doubts. He does not use the hypothesis that God or an evil demon could deceive us in *all* our cognitive acts, but confines himself to pondering the possibility that God could intervene in *some* special cases. He never doubts that we are, in principle, in contact with a real world and that things in this world cause most of our beliefs. Global skepticism is not an issue for him.

Second, following the Aristotelian tradition, Ockham commits himself to the thesis that we have reliable cognitive capacities that provide, in principle, correct information about the real world. That the cognitive mechanisms may be disturbed or manipulated by God in some cases does not show that they are never to be trusted. And that we may not always be able to distinguish a false belief from a correct judgment does not prove that all our judgments are to be suspended. False beliefs caused by God are to be seen as exceptional cases, comparable to the equally exceptional cases of sensory illusion.

Moreover, they can be corrected if they are linked to other beliefs and evaluated in a broader context. Ockham simply never discusses the possibility that God could manipulate all cognitive acts and create an all-embracing net of false beliefs.

Third, Ockham develops his epistemology in a metaphysical framework that emphasizes the contingency of all events. There is no absolute necessity in the world, neither in cognitive nor in simple physical processes. Should someone ask whether we can be certain that the sun will rise tomorrow, Ockham's response would be: given the natural course of nature, we can indeed be certain, but there is no guarantee that this course will continue without exception. Likewise, there is no absolute guarantee in the realm of cognitive processes. All we can say is that if the natural course determined by natural laws continues, our mental states are reliably caused by material things and present them as they are. All we can strive for is this kind of hypothetical certainty and a high degree of reliability. A dogmatic philosopher who tries to rule out every possible error ignores this basic fact.

This line of reasoning, aimed at a rejection of exceedingly high epistemic standards, was adopted by a number of later medieval philosophers. John Rodington, Robert Holcot, Gregory of Rimini, and many other fourteenth-century authors conceded that supernaturally caused deception could occur in exceptional cases without thereby giving up the general thesis that natural knowledge is possible.[8] In his *Commentary on the Sentences* (*ca.* 1376), Peter of Ailly explicitly claims that we need to distinguish between two types of certainty when dealing with skeptical arguments. In the case of self-evident principles and our own mental acts, we have *absolute* evidence that allows us to have infallible knowledge. For instance, my judgment that a whole is greater than each of its parts is simply based on an understanding of the terms 'whole' and 'parts,' regardless of the existence of wholes and parts in the material world. And the judgment that I am thinking right now is equally independent of the actual existence of material things. For all other judgments, we only have *conditional* evidence, because

in the unconditional and absolute sense, nothing sensible outside us can evidently be known to exist, for instance that whiteness is, that blackness is, that a human being is, that a human being differs from a donkey, etc. . . . If, however, one speaks about relative and conditional evidence, that is, if one assumes that God's general influence is maintained

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[8] See the classical study by Anneliese Maier, "Das Problem der Evidenz in der Philosophie des 14. Jahrhunderts," in *Ausgehendes Mittelalter: Gesammelte Aufsätze zur Geistesgeschichte des 14. Jahrhunderts* (Rome: Edizioni di Storia e Letteratura, 1967) II: 367–418; Dominik Perler, "Does God Deceive Us? Skeptical Hypotheses in Late Medieval Epistemology," in H. Lagerlund (ed.) *Skepticism in Medieval Philosophy* (Leiden: Brill, forthcoming).

and that the normal course of nature continues without a miracle, then we can know such things sufficiently with evidence, in such a way that we cannot reasonably doubt them.

<div align="right">(Sent. 1.1)</div>

The crucial point is that Peter of Ailly does not give up all knowledge claims; rather, he specifies that different evidential bases justify different types of knowledge claims.

Here, again, we see that skeptical arguments did not motivate medieval philosophers to take a radical skeptical position. The argument of divine omnipotence inspired Ockham and his successors to differentiate between various types of knowledge and to spell out the certainty that is possible in each case. Therefore, it would hardly be adequate to consider their discussions as mere anticipations of the Cartesian argument of radical deception.

<div align="center">

OLIVI, CRATHORN, AND THE THREAT OF
REPRESENTATIONALISM

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Deeply influenced by the cognitive theory outlined in Aristotle's *De anima*, later medieval philosophers typically claimed that one cannot have an epistemic access to material things unless one assimilates their sensory and intelligible forms. But how is this possible? Beginning in the mid-thirteenth century, many authors tried to answer this question by invoking "sensible" and "intelligible species" as devices that make the forms cognitively present (see Chapter 25).[9] Most Aristotelians agreed that the species are not cognitive objects, but mere instruments that one needs to make the forms accessible. Thus, Thomas Aquinas claims that the intellect primarily cognizes the forms presented by the species and cognizes the species only secondarily, namely when it reflects upon how the forms are cognized (*Summa theol.* 1a 85.2c).

Yet not all philosophers shared this interpretation. In his *Summa of Questions on the Sentences* (*ca.* 1280), Peter of John Olivi notes that one cannot cognize anything by means of a species unless one first pays attention to it and grasps it as an inner object. That is why the species has "the character of a first object" (*Summa* II.58, ed. Jansen, II: 469). A person can turn her attention to the form present in a material thing only secondarily – when thinking about the cause of this inner object. With this interpretation, Olivi obviously turns the species into an inner representation that is set apart from the external thing. It is therefore

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[9] See Leen Spruit, *Species Intelligibilis: From Perception to Knowledge* (Leiden: Brill, 1994) vol. I, and Katherine Tachau, *Vision and Certitude in the Age of Ockham: Optics, Epistemology and the Foundations of Semantics 1250–1340* (Leiden, Brill, 1988).

hardly surprising that he thinks a species "would veil the thing and impede its being attended to in itself, rather than aid in its being attended to" (ibid.).[10] This talk about an inner veil is, of course, characteristic of a representationalist theory that denies the possibility of an immediate access to external things. Yet it does not necessarily have skeptical consequences, for one may always say that even if the species is the primary object we cognize, we can immediately grasp the external thing (or its form) as a secondary object, because we can make an inference from the inner effect to the outer cause.

It is precisely at this point that Olivi makes use of a skeptical hypothesis. "Let us suppose," he writes, "that God presents such a species to our [intellectual] gaze without there existing a thing or without there being a thing actually present. In that case, something would appear as well as in the case in which a thing exists or is actually present. In fact, no more or less would something appear in that case" (ibid., II: 470). Since the supernaturally caused species could be as vividly present as the naturally caused one, a person could never tell whether or not there is a corresponding thing in the material world. He or she would be somehow imprisoned in the inner world of species.

To be sure, Olivi does not commit himself to this position. He uses the skeptical scenario to attack the species theory. On his view, anyone who adopts this theory will inevitably end up with representationalism and skepticism. To avoid this consequence, he argues that one should reject the introduction of species right from the start and defend the thesis that a person *directly* perceives and thinks about external things, without needing inner cognitive objects. Therefore, his use of a skeptical hypothesis is motivated by a methodological goal: to overcome the devastating species theory and reintroduce a robust form of direct realism.

A similar motivation was the driving force behind William Crathorn's appeal to skeptical arguments. In his *Questions on the Sentences* (*ca.* 1330) he extensively discusses not only the theory of intelligible species, but also the theory of sensible species that are supposed to exist in the inner senses, making the sensory forms cognitively accessible. According to Crathorn, if there really are such entities, then they must be grasped by the inner senses so that they can have a cognitive function. But if they are grasped, they are equally well cognized as the sensory forms of external things, because they are immediately and infallibly present. No obstacle could prevent a person from cognizing them. This immediately leads to a skeptical question: how can a person ever tell whether she is cognizing the inner sensible species or the outer sensory form? Both are present to her,

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[10] A detailed analysis of this passage is provided by Robert Pasnau, *Theories of Cognition in the Later Middle Ages* (Cambridge: Cambridge University Press, 1997) pp. 236–7.

and there is no inner sign that would enable her to distinguish them (*Sent.* I.1, ed. Hoffmann, p. 123).

Now one may respond that this does not present a serious problem, for even if a person cognizes the species, she can be certain that she also cognizes the sensory form, because the form is the cause of the species and fixes its cognitive content. If, for instance, I cognize the sensible species presenting whiteness, I grasp *eo ipso* the form of whiteness existing in a material object, because it is this form that brought about the species and endowed it with a certain content. But how can I be certain that there really is an external cause? This is a second skeptical question, which Crathorn illustrated with the following hypothetical example:

God could maintain a species, which was caused by a color, and at the same time destroy the external thing that was originally seen, without letting the person who has the species know this. If God were doing this, the seeing person would judge that he sees the previously seen whiteness and that this whiteness exists, and he would err exactly in this judgment.

(ibid., p. 124)

There is no guarantee that there really is a causal link between outer form and inner species. It could always happen that the natural causal chain is interrupted so that the person grasps nothing but the species. Consequently, one can never know with certainty that there is a real color corresponding to a sensible species.

Like Olivi, Crathorn presents this argument not to support a skeptical position, but to illustrate the devastating consequences of the species theory. Invoking God's veracity and benevolence, he concludes that we should not be afraid of divine intervention (ibid., pp. 126–7), but we should be aware that God *could* intervene if inner representational species are set apart from outer objects. Here again, a skeptical strategy is introduced for methodological purposes – namely, to spell out the implications of a representationalist theory of perception.

AUTRECOURT, BURIDAN, AND THE QUEST FOR A FOUNDATION OF KNOWLEDGE

The hypothesis of a possible divine intervention in cognitive processes, popular among many fourteenth- and fifteenth-century authors, provoked a general debate about the foundation of knowledge. How can our knowledge ever have a secure foundation if God is free to manipulate all cognitive processes? Could he not manipulate mental acts that directly refer to external things as well? In addition, cases of sensory illusions were cited to show that our thoughts about external things can be mistaken even if the natural course of nature is not

interrupted.[11] For instance, when I am looking at a stick partly submerged in water, it looks bent to me, and I inevitably think that it is really bent. So, what justification do I have for assuming that my thoughts correspond to things as they are? Should I not concede that even the naturally caused thoughts could be false and that I am not able to distinguish the false from the true ones?

This line of questioning sparked a controversy between two Parisian philosophers, Nicholas of Autrecourt and Bernard of Arezzo.[12] In his first letter to Bernard (prob. *ca.* 1335–6) Nicholas harshly criticizes his colleague's view that "in the natural light we cannot be certain when our awareness of the existence of external objects is true or false" (ed. de Rijk, p. 47). This view paves the way for a disastrous skepticism, as Nicholas points out with colorful examples. For if there were no certainty, Bernard could never know if the chancellor or the pope really exists. Nor could he know if he himself has a head and a beard – all thoughts could be false. To avoid these absurdities, Nicholas claims that he is evidently certain of the objects of the five senses and of his own acts, at least when these objects are present to him "in full light," that is, under normal perceptual circumstances (ibid., p. 57).[13]

This last claim makes it clear that Nicholas rejects a skeptical position by appealing to the reliability of sense perception and to an empirical foundation of knowledge. But did he thereby validate all knowledge based on sensory experience – for instance, knowledge of a causal relation between perceived objects? Not at all. On his view, knowledge needs to be certain, and certainty has to be reducible to the first principle, that is, the principle of non-contradiction. But this principle does not justify causal claims. Nicholas illustrates this point with the following example. When I am seeing a burning piece of linen "in full light," I am entitled to say only that I know that there is something burning in front of me and that the contradictory statement is false. I am not entitled to claim that the fire has caused the burning, because the causal relation is not an immediate sensory object, nor is the statement about such a relation reducible to the first principle. This principle justifies only statements of the type 'If it is true that *a* (the burning linen) exists, then the contradictory statement is not true.' The principle does not justify statements like 'If it is true that *a* exists, then it is also true that *b* (the fire) exists and that *a* exists because of *b*.' This

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[11] Debates about sensory illusions were mostly inspired by Peter Auriol, who discussed eight cases (*Scriptum* I.3.14 art. 1). See Tachau, *Vision and Certitude*, 85–104, and Dallas Denery, *Seeing and Being Seen in the Later Medieval World: Optics, Theology and Religious Life* (Cambridge: Cambridge University Press, 2005).

[12] On the historical context of the controversy, see Zénon Kaluza, *Nicolas d'Autrécourt: ami de la vérité* (Paris: Académie des inscriptions et belles-lettres, 1995).

[13] See also *Exigit ordo*, ed. O'Donnell, pp. 228, 234.

would go far beyond the certitude guaranteed by the sensory experience and the first principle. Likewise, I am not entitled to say 'If an accident exists, then a substance exists,' because this statement is not reducible to the first principle, and no substance (or inherence of an accident in a substance) is immediately perceivable. Only perceptible accidents are objects of the five senses.

These observations lead Nicholas to radical, anti-Aristotelian conclusions. He claims, for instance, that "Aristotle never possessed evident knowledge about any substance other than his own soul" (ibid., p. 73) and "that we do not evidently know that anything other than God can be the cause of some effect" (p. 175). These theses, shocking in the ears of orthodox Aristotelians, were condemned in 1346 by a papal commission, and Nicholas had to recant them. Even modern commentators have judged them to be destructive and thought that they manifested Nicholas's radical skepticism.[14] Yet, one should note that Nicholas does not defend a skeptical point of view. He rather adopts a foundationalist position by looking for an infallible foundation for all knowledge – a foundation he locates in the first principle and in immediate sense perception. Consequently, Nicholas rejects all knowledge claims that are not firmly based on this foundation. This does not, however, amount to a denial of the possibility of knowledge. On the contrary, Nicholas's purpose is to guarantee this possibility by establishing a secure foundation and by carefully distinguishing knowledge from mere belief.

But should all knowledge be reducible to the first principle? John Buridan, Nicholas's colleague at the University of Paris, critically discusses this question and argues that Nicholas's requirement is too austere. According to Buridan, "there is not a single first and indemonstrable complex principle to which everything is to be reduced, but there are as many principles as demonstrated conclusions."[15] Therefore, one should not look for a single foundation but for different foundations that secure different types of knowledge, including the knowledge of causal relations. Moreover, these foundations do not simply consist in analytical principles, but in a variety of principles that are acquired through sense perception, memory, and inductive reasoning. Admittedly, sense perception may be fallacious in *some* cases, but it is not completely deceptive in *all* cases. That is why fallacious perceptions can be corrected and frequent sensory experience can provide true principles – for instance, the principle that linen burns when in contact with fire. It would be pointless to aim at a reduction of this principle to a more basic one that is not grounded in experience.

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[14] A critical evaluation of these interpretations is provided by Christophe Grellard, *Croire et savoir: les principes de la connaissance selon Nicolas d'Autrécourt* (Paris: Vrin, 2005).
[15] *Summulae de demonstrationibus* 8.3.6, ed. de Rijk, p. 83; see also p. 122.

Buridan's reaction to Nicholas of Autrecourt's position shows that two different conceptions of knowledge were at stake in the fourteenth-century Parisian debates. Whereas Nicholas thought that skeptical arguments cannot be refuted unless one adopts a foundationalist conception that restricts knowledge to a small number of beliefs that can be justified with reference to a single principle, Buridan defended a pluralist conception that accepts a variety of principles and, consequently, a variety of justifications for beliefs. And whereas Nicholas held that an appeal to sense perception is admissible only if an object is immediately present to one of the five senses, Buridan accepted any sensory or intellectual process, including memory, that repeatedly occurred and proved to be reliable. Neither of them took a skeptical position, but both discussed skeptical objections to delineate their conceptions of knowledge.

It is in fact this methodological use of skepticism that characterizes many scholastic debates and distinguishes them from true skepticism, which aims at a radical denial of the possibility of knowledge. As employed by these medieval authors, skeptical arguments serve as a key to better understanding the nature and scope of knowledge.[16]

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[16] For a detailed analysis of this general goal, see Perler, *Zweifel und Gewissheit: skeptische Debatten im Mittelalter* (Frankfurt: Klostermann, 2006).

V

WILL AND DESIRE

FREEDOM AND DETERMINISM

PETER ADAMSON

Nowadays philosophers who worry about determinism are usually worrying about determination by physical causes. A prominent question is thus whether physical causes[1] might necessitate my performing a given action, and yet leave me free to choose with respect to that action. But this is not a central question in medieval discussions of freedom, which tend rather to center on God. There are two features of God's nature that might seem to imply determinism. First, God is the creator of all things. How, then, does his creative act relate to human acts? If he is the real agent of these acts, it would seem that it is God, and not us, who is morally responsible for them. Second, God is omniscient, which seems to mean that God knows in advance what I will do. How, then, can I be free with respect to what I do?

Why were the medievals not particularly worried about physical determinism? In part the explanation, as is so often the case, goes back to Aristotle. Aristotle and philosophers in the Aristotelian tradition make a fundamental distinction between what is necessary, essential, and always the case, and what is possible, accidental, and only sometimes the case. For example, human beings are necessarily, essentially, and always rational, whereas human beings are merely possibly, accidentally, and sometimes bald. Already in the late ancient tradition, most particular events and properties in the physical world were normally consigned to the realm of chance and the accidental.[2] By the medieval period, Aristotelianism so dominates natural philosophy that philosophers rarely take seriously the idea that physical causes could necessitate everything, including human actions.[3]

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[1] Or more rigorously, physical laws plus the condition of the physical world at some past time.

[2] For instance, the Aristotelian commentator Alexander of Aphrodisias rejected Stoic determinism by claiming that necessity within the physical world is found only at the level of species, not at the level of the individual. See R. W. Sharples, *Alexander of Aphrodisias on Fate* (London: Duckworth, 1983).

[3] One exception to the rule is astrology, which in both the ancient and medieval period is often yoked to a deterministic conception of astral causation. Most medieval authors opposed astrology, especially in its determinist form. But for deterministic astrology early in the Muslim tradition, see

Furthermore, medieval thinkers accept the reality of immaterial causes: God, the angels, and the human rational soul itself. This prevents it from being the case that everything is necessitated by physical causes. In particular, our actions will not be so necessitated, assuming our souls play some causal role in action. And this returns us to what most concerns the medievals: that an immaterial cause other than our souls, namely God, might determine human actions instead. In order to fend off this kind of determinism, the medievals need to show both that God is not the real *agent* or *cause* of all human actions – especially the evil ones – and that God's *foreknowledge* has no deterministic implications. The first order of business must be to clarify this very distinction between necessitation by divine causation and necessitation by divine knowledge. Accordingly, this chapter will examine texts from the earlier centuries of the medieval period in which philosophers disentangle these two sorts of putative necessitation. We will consider both the Arabic and Latin traditions, which develop in parallel ways but in response to rather different initial debates.

THE ARABIC TRADITION

In Arabic, the initial debate is one within Islamic *kalām* (roughly, "speculative theology"). This debate is normally summarized as one between the Muʿtazilite and Ashʿarite schools. Indeed, this is one of the chief points of dispute between the two schools.[4] The Muʿtazilites believe that human actions are free, and that determination (even by our own motivations) would be incompatible with this freedom.[5] They sometimes defend this view by appealing to our strong intuition that we do possess free will. At least as important, though, is another theological commitment, namely divine justice: if I am not free with respect to an action, then it will not be just for God to punish me for that action. The rival school, founded in the early tenth century by the lapsed Muʿtazilite al-Ashʿarī, seeks instead to safeguard divine power. Ashʿarites object to the Muʿtazilite claim that humans are the authors or even "creators" of their actions. The Ashʿarites instead say that God creates my action, and that I "acquire" the action by

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Peter Adamson, "Abū Maʿshar, al-Kindī and the Philosophical Defense of Astrology," *Recherches de philosophie et théologie médiévales* 69 (2002) 245–70.

[4] The most significant other point of disagreement is over divine attributes: the Muʿtazilites adopt an austere view according to which God has no distinct attributes, but is identical with his own knowledge, power, etc. The Ashʿarites deny that the possession of such attributes would compromise divine simplicity.

[5] As shown by Richard M. Frank, "The Autonomy of the Human Agent in the Teaching of ʿAbd al-Jabbār," *Le Muséon* 95 (1982) 323–55.

performing it. This "acquisition" (*kasb* or *iktisāb*) makes me morally responsible for my actions and, thus, subject to just punishment.[6]

In the early period at least, the *falāsifa* (scholars primarily engaged with the Greek philosophical tradition, rather than with theology) tend to sympathize with the Muʿtazilites.[7] This is in part because Aristotle was so clearly opposed to determinism. One central text is chapter 9 of *De interpretatione*, where Aristotle presents the famous sea battle argument for determinism: if it is true today that there will be a sea battle tomorrow, then it is inevitable or necessary that the sea battle occur. This provokes a discussion of determinism in the tenth-century commentary of al-Fārābī.[8] Al-Fārābī follows ancient commentators in thinking that Aristotle meant to rebut the deterministic argument by saying that statements about future contingents, such as 'there will be a sea battle tomorrow,' have only an "indeterminate" truth value. This seems to mean that such statements are either true or false, but not yet one or the other. Al-Fārābī then digresses from his commentary to consider the implications of divine foreknowledge. After all, such statements must have a truth value if God knows them to be true. Al-Fārābī does not explicitly distinguish the idea that God *causes* things to happen from the idea that God's *knowing* about them in advance shows that they are necessary. But he does make a distinction that would help solve the latter problem: "a thing may follow from something else necessarily, but not be necessary in itself" (ed. Kutsch and Marrow, p. 99). In other words, it is true that:

Necessarily: if God knows that P, P is true.

But this should not be confused with:

If God knows that P, P is necessarily true.

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[6] In fact, a stark opposition between Muʿtazilite and Ashʿarite schools is too simple. For one thing, the Muʿtazilite position itself responds to earlier deterministic positions, for example that of Jahm ibn Ṣafwān (who said that God truly acts, whereas we act only in an extended or metaphorical sense) and that of Ḍirār ibn ʿAmr (who already uses the language of *kasb*). Also, there is extensive debate within both schools. Early libertarian thinkers before the time of al-Ashʿarī, who are in retrospect grouped together under the heading of 'Muʿtazilism,' have every reason to see fellow libertarians as their main opponents in the debate, and think of finer points as the ones worth debating. One such fine point, which we will meet again below, is whether or not the "capacity" to perform a free action already exists before the performance of the action.

[7] The boundaries of what counts as *falsafa* are contentious, but for the early period discussed here it is characterized by a direct engagement with Aristotle and other Greek philosophical works (see Chapter 1). Matters become more complex with the coming of Avicenna (d. 1037), because after him the *falāsifa* tend to respond to Avicenna as much as to Aristotle, while Avicennian ideas are also integrated into the *kalām* tradition.

[8] See my "The Arabic Sea Battle: al-Fārābī on the Problem of Future Contingents," *Archiv für Geschichte der Philosophie* 88 (2006) 163–88; Robert Wisnovsky, *Avicenna's Metaphysics in Context* (Ithaca, NY: Cornell University Press, 2003) pp. 219–25.

Al-Fārābī stresses that, with his distinction in hand, we can admit, for instance, that Zayd will travel tomorrow, while maintaining that there is a "power" in Zayd not to travel; he is *qādir*, "capable," with respect to both traveling and not traveling (ibid.).

At around the same time, we find Jewish and Christian authors writing in Arabic about the same issues. Saadiah Gaon, one of the earliest Jewish medieval philosophers, is often said to have followed the Muʿtazilite school of Muslim *kalām*, especially on the problems of divine attributes and freedom. His discussion of freedom in the *Book of Beliefs and Convictions* is much briefer than his discussion of divine attributes, but it is at least as clear in adopting the Muʿtazilite view. Like the Muʿtazilites, Saadiah begins from the premise of divine justice. It is out of justice that God "gives [a human being] power (*al-qudra*) and capacity (*al-istiṭāʿa*) to do what [God] commands him to do, and avoid what he forbids him to do" (ed. Landauer, pp. 150–1). For God would not command a person to do something that was not in that person's power.[9]

Saadiah had said earlier that every agent must be possessed of choice (*mukhtār* [ibid., p. 58]), and he repeats the point here: "it must be explained that man performs no *action* unless he *chooses* his action, since it is impossible that someone without choice acts, or that someone acts if he is not possessed of choice" (pp. 151–2). And we are immediately aware that we do possess choice (p. 152). Furthermore, a single action cannot proceed from two agents – in other words, from both God and a human being. What Saadiah seems to mean here is that an action must not be *overdetermined*, in other words brought about by two distinct sufficient causes. The true cause is either God or the human agent. But if all human actions proceed from God, then it would be unjust of him to punish evil actions (here the act in question is disbelief in God [pp. 152–3]). So they must proceed from us alone. At this point Saadiah considers an objection. Perhaps someone will say that God "has already known (*fa-qad ʿalima*) that the man will be disobedient; so it is inevitable (*lā budda*) that the man is disobedient" (p. 154). In response, Saadiah argues that God's knowledge of an action is not the cause (*sabab*) of the action. If it were, then actions would be eternal, just like God's knowledge itself. Instead, God knows things "as they really come to be (*ʿalā mithl ḥaqīqa kawnihā*)." Unfortunately, Saadiah does not explain his solution in detail. He seems to mean that, just as God has eternal knowledge of things

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[9] Saadiah also responds to a Muʿtazilite problematic when he argues that "capacity" must already be present prior to our action *and* at the moment of action (see above, n. 6). In the Latin tradition, Anselm, in a text discussed below (*On the Fall of the Devil* 12), also discusses the issue of what needs to be present in the agent prior to his or her action. For further discussion of Saadiah's views, see Israel Efros, *Studies in Medieval Jewish Philosophy* (New York: Columbia University Press, 1974) ch. 6.

that are not eternal, so God inevitably has knowledge of things that are not inevitable. (Interestingly, in his commentary on the *De interpretatione*, al-Fārābī considers, but rejects as mere verbiage, a solution along these lines [ed. Kutsch and Marrow, p. 98].) Still, Saadiah sees what is needed, namely a way that God can know what we will do without thereby causing us to do it.

This point is developed much more explicitly by the Christian philosopher Yaḥyā ibn ʿAdī, a student of al-Fārābī and, like him, a member of the Aristotelian school at Baghdad which produced translations of and commentaries on Aristotle. Ibn ʿAdī's treatise *On the Possible* is arguably the most sophisticated discussion of possibility and human action in Arabic philosophy prior to Avicenna. The treatise has an unusual format, consisting of a lengthy independent section followed by a line-by-line commentary on chapter 9 of the *De interpretatione*.[10] In the independent section, Ibn ʿAdī addresses an argument to the effect that divine omniscience entails determinism. The argument turns on the claim that the "state of a knower" must be the same as the "state of the object known." In the case of God we have a knower who is "stable in existence, unchanging and unable to change." Therefore "the state of the things he knows is necessarily unchanging, and cannot change" (ed. Ehrig-Eggert, p. 66). But the possible is precisely that which can change from not-existing to existing, or vice versa. So if God knows everything, and everything God knows must be, like him, unchanging, then there is no such thing as possibility. Notice that 'possibility' here must mean two-sided possibility or contingency (that is, that which is neither necessary nor impossible) rather than one-sided possibility (that is, whatever is not impossible, including what is necessary).

Ibn ʿAdī responds to this deterministic argument by contending that God's foreknowledge is not a cause (*sabab*) for the existence of the things he knows. He proceeds by distinguishing six types of cause, and showing that God's foreknowledge does not fall under any of the six types.[11] The most interesting possibility seems to be that God's knowledge might be the efficient or agent cause (*sabab fāʿil*) of all things (ibid., pp. 68–9). There are, says Ibn ʿAdī, two types of efficient cause: those that act by nature and those that act by choice (*bi-ikhtiyār*). Causes that act by nature produce their effect whenever they exist, so that cause and effect co-occur. But God's foreknowledge *precedes* what he

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[10] Part of the treatise is translated into English in J. McGinnis and D. C. Reisman (ed. and tr.), *Classical Arabic Philosophy: An Anthology of Sources* (Indianapolis, IN: Hackett, 2007) pp. 128–39. There is a German translation and commentary in Carl Ehrig-Eggert, *Die Abhandlung über den Nachweis der Natur des Möglichen von Yaḥyā ibn ʿAdī (gest. 974 A.D.)* (Frankfurt: Institut für Geschichte der Arabisch-Islamischen Wissenschaften an der Johann Wolfgang Goethe-Universität, 1990).

[11] He follows the Neoplatonists in expanding Aristotle's list of four causes (formal, material, efficient, and final) to include paradigmatic and instrumental causes.

knows. Thus God does not cause the objects of his knowledge by acting through his nature. That leaves God's acting by choice. But the assumption that God *voluntarily* causes all things to exist already implies that those things are possible, since voluntary choices are between multiple possibilities.[12] This assumption already undermines the opponent's conclusion, which is precisely that nothing is possible.

Thus far, Ibn ʿAdī has responded to the determinist in an indirect way. His aim has been to persuade us that there is no causal link between God's knowledge and what he knows. The point seems to be that, in the absence of such a link, there is no reason to think that the status of God's knowledge could in any way affect the status of the things he knows. Next, Ibn ʿAdī turns to a more direct refutation of the claim that the properties of a knower automatically transfer to what it knows. This is false, as Saadiah also pointed out, since God is eternally existent and yet it is patently the case that some objects of his knowledge are not eternally existent. There are, then, some properties of a knower that are not shared with what is known. Ibn ʿAdī explains how, in particular, it could be the case that God is unchanging even though what he knows is changing:

> The knower, insofar as it is a knower, changes its relation to the object of knowledge, along with the changing of the states of the object of knowledge. Even though the essence of the knower remains unchanged, it is not right to say that the knower is unchanged *insofar as it is a knower*, as it is taken in this argument.
>
> (ibid., p. 75)

Suppose (to take Ibn ʿAdī's own example) that Zayd dies, and thus goes from existing to not-existing. In this case God will go from knowing that Zayd exists to knowing that Zayd does not exist.[13] But this does not imply that God *himself* changes, because his knowledge is relational – that is, extrinsic to his own essence. It is only *qua* knower that God changes, not *qua* God.

So far, Ibn ʿAdī has argued negatively: there is no causal link between God and creatures sufficient to underwrite determinism, and the determinist's crucial premise is false. But he also supplies a positive reason for affirming the reality of the possible (ibid., p. 79). As we have seen, Aristotle identified the necessary with what always exists, and the impossible with what never exists. The possible must then be what exists sometimes but not always. Ibn ʿAdī accepts these

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[12] "[Voluntary agency] applies only to agents who are able to do or refrain from one and the same thing. But this requires something that possibly exists (*imkān al-wujūd*), for which there exists the power (*qudra*) to make it exist or make it not exist. But this conflicts with the necessity of things, because it is obvious that whenever something necessarily exists, there can only be a power to make it exist, not one to make it not exist" (ibid., 68).

[13] He does not seem to envision the possibility that God *timelessly* knows that Zayd exists at such and such a time, and also *timelessly* knows that Zayd does not exist at some other time.

identifications. Therefore, to prove the existence of the possible, we need only give a single example of something that exists sometimes but not always: for instance, a man's walking. While this might seem a bit glib, it is important to remember that Ibn ʿAdī takes himself already to have eliminated any support for determinism. At this point, he need only reaffirm what we all intuitively believe in the first place, namely that some things are possible or contingent.

But there are grounds for unease. Go back to Ibn ʿAdī's discussion of whether God is an efficient cause. There, he seemed to leave it open that God might be a "voluntary" cause of what he knows. For Ibn ʿAdī this presented no difficulty, because if God voluntarily chooses (say) that Zayd will go on a journey, it immediately follows that it was possible that Zayd will *not* go on the journey: "voluntarily choosing" a thing makes sense only when that thing is two-sided-possible (neither necessary nor impossible). But this is really no comfort. What we want is for at least some things to be chosen by *us* and not God. Ibn ʿAdī has shown only that God's foreknowledge is consistent with two-sided possibility, not that there are possibilities whose realization lies in our power rather than God's. Though it is clear that Ibn ʿAdī does think there are such possibilities, his argument rather skirts the issue, because he is concerned only to prove that possibility does really exist. To put it another way, Ibn ʿAdī is here satisfied with showing that nothing in the created world is in itself necessary; he is not worried about whether created things might be (voluntarily) necessitated by God.

But further light is shed by another work by Ibn ʿAdī, a rebuttal of the afore-mentioned Ashʿarite theory of *kasb* (acquisition).[14] (This is a rather surprising topic for Ibn ʿAdī to have taken up, given that he is a Christian and that *kasb* is a notion originating in Islamic *kalām*. Indeed, Ibn ʿAdī says at the outset that he bothers with the question only at the request of the recipient of the treatise.) Again, the discussion takes the form of refuting a deterministic argument, this time one with a distinctively *kalām* ring. The opponent claims that humans cannot cause their own actions, since this would be to "create" something or "bring it into existence," while creation is proper only to God. Furthermore, the actions clearly do not bring themselves into existence. That leaves God as the only possible cause. Ibn ʿAdī responds with a closer inspection of the key terms '*fiʿl*' and '*khalq*' (action and creation). He claims that, although in Arabic these two terms are normally synonymous, creation is sometimes used in the narrow sense of bringing into existence a matter–form composite without a

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[14] For an edition and translation see S. Pines and M. Schwarz, "Yaḥyā ibn ʿAdī's Refutation of the Doctrine of Acquisition (*Iktisāb*)," in J. Blau *et al.* (eds.) *Studia Orientalia Memoriae D.H. Baneth Dedicata* (Jerusalem: Magnes Press, 1979) 49–94.

preexisting material substrate. Though it is true that this sort of causation – creation *ex nihilo* – is exercised only by God, it does not follow that only God ever brings anything into existence. In particular, humans are able to "create" their actions, which are accidents rather than matter–form composites. (For instance, if I walk, the walking is an accident that belongs to me, not a matter–form composite in its own right.) To assume that this is impossible is simply to beg the question in favor of determinism.

THE LATIN TRADITION

For authors writing early in the Latin medieval tradition, the crucial context for these questions is provided by a different debate – namely, that between Augustine and the Pelagians. Pelagius held that it is within the power of human beings to be good and to merit salvation. Augustine disagreed, arguing that in our state of original sin, God's grace is a necessary condition for good human actions (see Chapter 32). It was Augustine who prevailed, and Christian medieval authors therefore write in a context where Pelagianism is a heresy. But this is not to say that Christian medieval philosophers must reject the reality of human freedom. Far from it: Augustine himself insisted that the need for divine grace is compatible with human freedom. Indeed, although Augustine could agree with the Ashʿarites that God must act in order for us to do good, he would nonetheless agree with the Muʿtazilites that we must be the sole agents when we do wrong, if God is to be just in punishing us.

Thus, philosophers in the Augustinian tradition must preserve what I will call the *asymmetry thesis*: that the human capacity to do evil does not imply an equal capacity to do good. There are good theological reasons within Christianity to uphold the asymmetry thesis (in particular, the absolute need for divine grace helps us to make sense of the Incarnation), but it seems to cause problems in the case of both good and evil actions. Why should I be rewarded for good actions, if it is God's grace that brings them about? And in what sense am I free when I do evil? If, with Saadiah and Ibn ʿAdī, we assume that my doing something freely requires the possibility to refrain from doing that thing, it looks as though I can be free with respect to sin only if it is possible for me to refrain from sinning. But this is precisely what Augustine seems to deny. Of course one might be free in the sense that one could choose from among a range of possible sins; but this would not be morally significant freedom, since any exercise of such freedom would be evil. Nor is this the only worry about freedom bequeathed to the medievals by Augustine. He also took up the problem of divine foreknowledge in his early work *On Freedom of Choice* and elsewhere (such as *The City of God* Book V).

Although the Latin medievals were also deeply influenced by Boethius's treatment of this problem in his *Consolation of Philosophy*, it was Augustine who was the central authority in a particularly important early dispute about freedom and determinism that took place in Carolingian France. The dispute was triggered by the theological position adopted *ca.* 840 by a monk named Gottschalk.[15] Gottschalk believed that human beings are subject to a double or "twin" predestination: there is one predestination for the elect, another for the damned. He saw this doctrine as Augustinian; it guarantees that those given divine grace are certainly saved, whereas those from whom God withholds grace are certainly damned. Other theologians were unwilling to accept that God predestines sin, however, on the grounds that this comes too close to placing the blame for evils with God, and could encourage the faithful to believe that it is pointless to expend effort in attempting to be good (because it is up to God, not me, whether I am saved). Gottschalk did have supporters, and some rejected double predestination yet pled for tolerance of his view. But Hincmar of Rheims and other opponents had Gottschalk condemned at Querzy in 849. Ordered to be silent, Gottschalk nevertheless continued to defend his controversial thesis, provoking a series of works against double predestination by Hincmar and others. Hincmar then turned to the Irish scholar John Scottus Eriugena for a demonstration of the falsity of Gottschalk's position, grounded in the liberal arts.[16] The resulting treatise *On Predestination* turned out to be an embarrassment to Hincmar. Eriugena displeased his own allies with some of the audacious positions he adopted, not least regarding eschatology, and he himself became the target of condemnatory refutations.

Eriugena begins his attack on Gottschalk by emphasizing a theme that will be prominent in his later *Periphyseon* – namely, God's simplicity. He argues (sec. 2) that since God's predestination is identical with God himself, a double predestination would imply duality in God, which is absurd. Eriugena also appeals to divine will and divine justice. Divine will would be vitiated if God were *necessarily* to predestine both the saved and the damned, for "where there is inevitability there is no will" (2.1). We must instead say that God

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[15] For overviews of the dispute see, for instance, Maïeul Cappuyns, *Jean Scot Érigène: sa vie, son œuvre, sa pensée* (Paris: De Brouwer, 1933) pp. 102–27; David Ganz, "The Debate on Predestination," in M. T. Gibson and J. L. Nelson (eds.) *Charles the Bald: Court and Kingdom* (Aldershot: Variorum, 1990) 283–302; and, focusing on Eriugena's role in the debate, J. J. O'Meara, *Eriugena* (Oxford: Clarendon Press, 1988) ch. 3.

[16] On the methodology of Eriugena's treatise see Gangolf Schrimpf, *Das Werk des Johannes Scottus Eriugena im Rahmen des Wissenschaftsverständnisses seiner Zeit* (Münster: Aschendorff, 1982) pp. 72–131. For an illuminating philosophical study of the treatise which connects it to themes from the *Periphyseon*, see John Marenbon, "John Scottus and Carolingian Theology: from the *De praedestinatione*, its Background and its Critics, to the *Periphyseon*," in Gibson and Nelson, *Charles the Bald,* 303–25.

predestines voluntarily, which excludes all necessity. Divine justice would be vitiated were God to punish sinners, having himself predestined those sinners to sin. This point, already familiar to us from the Muʿtazilites, is emphasized repeatedly by Eriugena (see, e.g., 4.3, 5.8–9). Nevertheless, an omniscient God must know in advance what sinners will do. Eriugena thus follows Hincmar and other opponents of Gottschalk by repeating a distinction they find in Augustine: God foreknows both good and evil, but he predestines only good.[17]

This solution raises several questions. First let us consider good actions. Are humans still free with respect to such actions, even though they are predestined? Eriugena replies by distinguishing between having a will and having a *free* will. Adam, prior to original sin, had a free will, which means that his will had sufficient "strength" or "power" to choose good as well as evil (4.6). In the Fall, humans lose this strength to do good, but retain their will. Indeed, argues Eriugena, they must retain this, because will is a "natural" or "essential" capacity of humankind. In other words, human beings can lose freedom while remaining human, while to lose the will is to cease being human. For Eriugena, even Adam had the freedom to choose good only by God's grace – because by nature Adam possessed only will, not free will. In original sin, this grace was spurned. It is offered to us again in the Incarnation, but always remains a gift from God, and God predestines only some to receive it. Thus when a fallen human being manages to do good, there are in fact two causes of the good action: the willing human and God, who facilitates the action by bestowing grace (8.7).

Does this imply that God is after all a cause of human actions? At one point Eriugena seems to imply so: he says that God is a "voluntary" rather than a "necessary" or "compelling" cause (5.5). But as other examples of "voluntary causes" Eriugena names "wisdom for the wise man" and "sight for the seeing man." The point would seem to be that if I will to see, this project will succeed only if there is sight in addition to the willing. Similarly, if I will to do good, this will be possible only if grace is added. God's grace is thus only a cause in the sense of a necessary condition. The claim that God's grace is a necessary condition allows Eriugena to steer clear of Pelagianism. The claim that God's grace is not a sufficient condition allows him to avoid overdetermination, which is the absurdity criticized by Saadiah.

Regarding evil actions, Eriugena has already secured what he thinks he needs to preserve God's justice. For God to be just in punishing me, it is enough that

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[17] For this claim in Ratramnus, Hrabanus, and Hincmar see, e.g., Ganz, "The Debate," p. 291; Marenbon, "John Scottus," p. 306.

I will my sin. God's justice does not, however, require my willing freely. So he can justly punish those who do not receive grace and who thus remain unable to avoid sin. On the other hand, Eriugena insists that God in no sense compels or causes my sin. This leads to another problem. God is the cause of all that is. So if he is not the cause of sin, how can there be sin? As we saw, the Ash'arites admit that God creates even evil actions, since only he can create – though they tried to preserve human responsibility through their doctrine of acquisition. But Eriugena has a different solution, which goes back to Greek Neoplatonism by way of Augustine: God does not cause evils to exist, because evil is nothing at all. It is privation or a lack of being. This enables Eriugena to add yet another argument against Gottschalk: God can hardly predestine sin if sin is nothing. But surely this means that God cannot foreknow sin either? Eriugena concedes the point, saying that statements about God's foreknowledge of sin need to be understood in a rather special, extended sense (sec. 10). Some of the notions he uses here were to be developed further in the *Periphyseon*, which extensively explores problems of speaking about God and about non-being. In the present treatise, though, the doctrine that evil is non-being leads Eriugena to some of his most controversial claims. He needs, for example, to say that the suffering caused by divine retribution is not itself created by God. This is at the root of the eschatology that would embarrass Hincmar and inspire several refutations of *On Predestination*.

In this work Eriugena offers no comprehensive solution to the problem of divine foreknowledge. He claims that God foreknows – but does not predestine – some actions, without stopping to ask whether foreknowledge might have the same deterministic consequences as predestination. The best Eriugena can offer is the thought that evil actions are not even foreknown in the strict sense, because they are nothing. With respect to good actions, he simply accepts that they are inevitable, because they are predestined. Two centuries later, however, we find Anselm thinking in a more systematic fashion about both divine foreknowledge and predestination in such key texts as the *De concordia* (1107–8) and an earlier trilogy of philosophical dialogues, *On Truth*, *On Freedom of Choice*, and *On the Fall of the Devil* (1080s).

In *On Truth*, Anselm discusses how truth applies to a wide range of things, including the will. He defines truth in both will and action as uprightness (*rectitudo*, chs. 4–5), and defines justice as uprightness of the will preserved for its own sake (ch. 12). The implications of this for the notion of freedom are explored in *On Freedom of Choice*. Anselm defines freedom of choice as "the power to keep uprightness of will for the sake of this uprightness itself" (ch. 3). Unlike most modern-day definitions of freedom, this definition tells us that freedom is directed specifically at goodness, rather than being an ethically neutral

capacity to make any choice whatever.[18] One advantage of this definition is that it allows for the freedom of beings who cannot sin, namely God and the good angels who are now confirmed in rectitude.[19] But it seems to have the awkward consequence that sin will not be a manifestation of free choice. Anselm's answer to this difficulty is that the power of choice need not be used for its intended purpose (ch. 2). As long as the sinner sins "without being compelled by anything else and out of no necessity, but on his own," we can say that the sin was an exercise of this power. Still, such a sin falls short of being a "free choice" in the full-blooded sense required by the definition, because it does not realize a capacity to preserve rectitude.[20]

　Consider the choice of Adam or Satan to defy God. In *On the Fall of the Devil*,[21] Anselm argues that Satan must not have been compelled to sin. As we have just seen, this is a necessary condition for Satan's genuinely *choosing* his sin. But it is also required to preserve divine justice: everything about Satan before his fall is given by God, so if his fall is necessary then God, not Satan, is to blame. Anselm therefore argues that Satan must be choosing between two wills, both given to him by God and directed to two different goals, namely happiness and justice (chs. 12–13) (see Chapter 35). If Satan had only one goal, he would choose it of necessity.[22] His sin, then, lies in choosing his own happiness over justice – a choice that, ironically, leads to unhappiness, while the good angels who choose justice receive happiness anyway in recompense. We should not be misled here into thinking that Anselm is saying that one needs to have multiple

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[18] This "teleological" aspect of the definition is well treated in Sandra Visser and Thomas Williams, "Anselm's Account of Freedom," in B. Davies and B. Leftow (eds.) *The Cambridge Companion to Anselm* (Cambridge: Cambridge University Press, 2005) 179–203.

[19] Anselm insists at *Freedom of Choice* 1 that the definition must apply to God, angels, and human beings, and therefore rejects the definition of freedom as the ability to sin or avoid sin. The point is emphasized by G. R. Evans, "Why the Fall of Satan?," *Recherches de théologie ancienne et médiévale* 45 (1978) p. 143.

[20] One might compare the use of medical knowledge to poison someone, or (to adapt an example used by Anselm, on which see further below) the use of sight to perceive darkness. On this argument see further Visser and Williams, "Anselm's Account of Freedom," pp. 183–4.

[21] As Evans, "Why the Fall of Satan?" points out, the focus on Satan is presumably for the sake of conceptual clarity. Anselm's concern is likely to be at least as much with Adam as with Satan.

[22] Furthermore, Satan must not know what will befall him if he sins, because if he did he would of course not sin. Nonetheless, he must know in advance that his sin is wrong, because otherwise he would not be blameworthy (chs. 21–2). With these two additional conditions Anselm is walking a careful line between asserting the utter perversity of Satan's choice – because he wants to ensure that Satan does not deliberately choose his own downfall – and asserting that Satan acts in complete ignorance. It seems then that Anselm concedes the possibility of *akrasia*, the deliberate choice of what one knows to be wrong, but does not concede the possibility of knowingly acting against one's self-interest. I offer this point as a supplement to the excellent discussion of the primary requirement for two wills in Calvin Normore, "Picking and Choosing: Anselm and Ockham on Choice," *Vivarium* 36 (1998) 23–39.

possibilities open to one in order to be free. After all, God and (once they are confirmed in rectitude) the good angels have a single will for the single goal of justice. The problem is rather that a single will for justice would itself come from God, so that Satan would be *compelled* to be just.[23]

What about postlapsarian humans? It might seem that we are compelled to sin, because without grace we cannot choose justice. But Anselm disagrees: after the Fall humans do have this ability; it is just that they cannot *use* the ability without God's help. Anselm compares this to someone who can see, but is blindfolded or in the dark (*Freedom of Choice* 3). This is Anselm's way of defending the asymmetry thesis: I can sin and can preserve rectitude, but 'can' means something different in the two cases. Anselm emphasizes that the power of free choice is inalienable, even if we are not always able to use it. It cannot be removed by temptation, nor even by God – not only because God is good and would not do so,[24] but because the power is "essential to rational nature."

In the trilogy, Anselm is concerned primarily with whether God's gifts (or lack thereof) to his creatures compel them to be good or evil. He does raise the divine foreknowledge problem (*Fall of the Devil* 21), only to defer it to another occasion. That occasion is the *De concordia*, whose title refers to the "harmony" between divine foreknowledge and freedom. Anselm is more explicit than any philosopher we have yet discussed in separating God's *knowing* a future action from his *causing* that action. Indeed what God foreknows in the case of voluntary action is just that: an action that is voluntary, and hence uncaused.[25] But does not foreknowledge alone show that the action is necessary? Anselm argues that it does not, by distinguishing "subsequent necessity" from "preceding necessity" (1.3). Something has preceding necessity if it is caused or compelled; it has merely subsequent necessity if it follows from some presupposition. For instance if we presuppose that a sea battle will occur tomorrow, then from this it necessarily follows that there will be a sea battle, but not that the sea battle is itself necessary.[26] And divine foreknowledge, according to Anselm, involves only subsequent necessity, since it is not a cause of what is foreknown.[27]

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[23] Here I follow Visser and Williams, "Anselm's Account of Freedom," pp. 186–94.

[24] On this and, in general, the question of whether God can do evil, see William Courtenay, "Necessity and Freedom in Anselm's Conception of God," *Analecta Anselmiana* 4 (1975) 39–64.

[25] See *De concordia* 2: "God foreknows the very fact that the will (*voluntas*) is neither compelled nor prevented by anything, and thus that what is done voluntarily (*voluntate*) is done freely (*libertate*)."

[26] This is the same distinction drawn by al-Fārābī, as we saw above. It is described by some Latin authors using the language of *de dicto* versus *de re* modality (see Chapter 13).

[27] Here numerous complications arise. For instance, in *De concordia* 1.5 Anselm follows Boethius in holding that God's knowledge does not in fact temporally precede that which he knows. Rather his knowledge is timelessly eternal. Anselm thinks this helps us see how God could "immutably" know something mutable.

The *De concordia* also discusses divine predestination. Anselm argues that God need not actually create evils, because they are quite literally nothing insofar as they are evil (1.7, 2.2). His only direct causal role regarding evil action is creating the will and the action, not creating the evilness of the action (which is nothing but a lack of justice). By contrast, in the case of good actions God creates both the action and its goodness (1.7). So, like Eriugena, Anselm depends on the Augustinian claim that evil is non-being. Apart from that, says Anselm (2.3), the problem of divine predestination adds no threat of determinism over and above the problem of divine foreknowledge, which has already been solved.[28]

CONCLUSION

Obviously, this has been a rather incomplete survey of a central issue in medieval philosophy, focusing only on early figures from the Arabic and Latin traditions. But these early discussions set the agenda for later thinkers. For instance, there is the question of what necessity is and how it relates to divine knowledge. Is the necessary, following Aristotle, that which is always the case, and the (two-sided) possible what is sometimes but not always the case? As we saw, Ibn ʿAdī endorses this assimilation, even though he wants to define choice in terms of selecting from multiple possibilities. At the same time, his teacher, al-Fārābī, hesitantly discusses the view that some things that are never realized might nonetheless be possible.[29] A generation later, the new modal theory of Avicenna will give the Arabic tradition new tools for thinking about the relation between time and modality. Avicenna will also influence ongoing Latin debates about modality, a foretaste of which can be found in Anselm. Briefly, Avicenna denies Aristotle's identification of the eternal with the necessary. For him, something's necessity or (two-sided) possibility is determined by its own essence: God is necessary-in-himself, whereas created things are merely possible-in-themselves.

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[28] Obviously this requires that the doctrine of grace has no deterministic consequences of its own, since what God predestines is precisely who receives grace and who does not. This issue is addressed in the third *Quaestio* of the *De concordia*, where Anselm refers back to the distinctions made in the trilogy, especially *On Freedom of Choice* (see, e.g., 3.4).

[29] On this see Adamson, "The Arabic Sea Battle." Al-Fārābī gives the example of whether it is possible for God to do evil, which is a worry for Anselm as well (see n. 24 above). See also Josef van Ess, "Wrongdoing and Divine Omnipotence in the Theology of Abū Isḥāq an-Naẓẓām," in T. Rudavsky (ed.) *Divine Omniscience and Omnipotence in Medieval Philosophy: Islamic, Jewish, and Christian Perspectives* (Dordrecht: Reidel, 1985) 53–67; in the same volume, see Richard M. Frank, "Can God Do What Is Wrong?," 69–79.

Some created things (the world, the heavens) are eternal, however, because their possible existence is realized eternally, through God's creative act.

Another important issue is the place of will in human psychology. We have seen that both Eriugena and Anselm associate the will strongly with rationality, and hold that humans possess a will essentially. This means modifying traditional Aristotelian psychology to accommodate a *sui generis* power to choose. As we have seen, in the Christian tradition this capacity is retained in defective fashion even after the Fall. Like their predecessors, the later medievals need to explain how even this defective will can account for moral responsibility, without obviating the need for divine grace. Alongside the problem of divine foreknowledge, it is thus the metaphysical nature of the will, and the theological ramifications of this special power, that most occupy the attentions of later Latin philosophers when they think about freedom.[30]

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[30] See further David Burrell, *Faith and Freedom: An Interfaith Perspective* (Oxford: Blackwell, 2004); William Lane Craig, *The Problem of Divine Foreknowledge and Future Contingents from Aristotle to Suarez* (Leiden: Brill, 1988); Hester Gelber, *It Could Have Been Otherwise: Contingency and Necessity in Dominican Theology at Oxford 1300–1350* (Leiden: Brill, 2004); Harm Goris, *Free Creatures of an Eternal God. Thomas Aquinas on God's Infallible Foreknowledge and Irresistible Will* (Leuven: Peeters, 1996); Anthony Kenny, "Divine Foreknowledge and Human Freedom," in A. Kenny (ed.) *Aquinas: A Collection of Critical Essays* (Notre Dame, IN: University of Notre Dame Press, 1969) 255–70; Rudavsky, *Divine Omniscience and Omnipotence*; Eleonore Stump, "Aquinas' Account of Freedom: Intellect and Will," in B. Davies (ed.) *Thomas Aquinas: Contemporary Philosophical Perspectives* (Oxford: Oxford University Press, 2002) 275–94; Linda Zagzebski, *The Dilemma of Freedom and Foreknowledge* (Oxford: Oxford University Press, 1991).

INTELLECTUALISM AND VOLUNTARISM

TOBIAS HOFFMANN

The terms 'intellectualism' and 'voluntarism' classify theories of moral psychology and of ethics according to whether primary importance is placed on the intellect or the will in human agency. Though classical and early medieval moral theories have a notion of willing as an act of desire (whether rational or not), they lack a concept of the will as a power of the soul distinct from the intellect and from the sense appetite. Only in the later Middle Ages, when the will is thus conceived as a distinct power of the soul, do the classifications of intellectualism and voluntarism properly apply.

Although intellectualism and voluntarism are apt terms for describing the extreme viewpoints, not every writer fits neatly into one of the two main camps, since there are considerable differences among them when it comes to the details of their moral psychology and ethics. An author may, for instance, have both intellectualist and voluntarist tendencies in different respects, or may consider the activities of intellect and will as so intertwined that these classifications become useless.

Historically, this split originated from specific innovative questions which were made a litmus test for a successful defense of human freedom; the fundamental issue was not whether human beings are free, but whether intellect or will is ultimately responsible for their freedom. This chapter focuses on the period in which these discussions among Latin authors were most heated and philosophically most fruitful – namely, from the late 1260s until the early 1300s – a time when ecclesiastical interventions were exacerbating the division. It concludes with some reflections on the wider implications of these rival accounts of human freedom for alternative views of human psychology and ethics.[1]

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[1] The most valuable studies are Bonnie Kent, *Virtues of the Will: The Transformation of Ethics in the Late Thirteenth Century* (Washington, DC: Catholic University of America Press, 1995); Peter S. Eardley, "The Foundations of Freedom in Later Medieval Philosophy: Giles of Rome and his Contemporaries," *Journal of the History of Philosophy* 44 (2006) 353–76; François-Xavier Putallaz, *Insolente liberté: controverses et condamnations au XIIIᵉ siècle* (Paris: Cerf, 1995); Ernst Stadter, *Psychologie und Metaphysik der menschlichen Freiheit: Die ideengeschichtliche Entwicklung zwischen Bonaventura und*

BONAVENTURE AND AQUINAS

Until the 1270s, explicit mention of "free will" (*voluntas libera*) was rare in medieval discussions of human freedom. The common term was rather *liberum arbitrium* (free decision, literally free adjudication). Thirteenth-century authors generally agreed with Peter Lombard's formula that free decision is a "faculty of reason and will," which they thought he had received from Augustine (*Sentences* II.24.3).

Bonaventure, in line with this tradition, holds that free decision encompasses both reason and will. Freedom – that is, acting or refraining from acting as one wants – requires the self-movement of the will and the cognitive capacity for reflecting upon one's own act (*Sent*. II.25.1.1.3). The will depends on reason for its act, for without prior knowledge it cannot elicit its act. Yet, freedom consists principally in the will: reason's control of the lower powers of the soul depends on the "command" (that is, the control) of the will, and the will is not bound to follow the dictate of reason unless it is a "definitive judgment." Moreover, the will influences practical reason's definitive judgment of what is to be done. Thus, "the will does not principally follow a foreign act [that is, the act of reason], but it rather pulls the foreign act towards its own act." Even if reason judges an act of the will to be evil, the will has the option of desisting from this act or not (*Sent*. II.25.1.1.6). Important themes foreshadowing later voluntarist accounts of free decision are already present here: the self-movement of the will, "command" as an act of the will, and the will's dominance vis-à-vis the judgment of reason. Conspicuously absent is the mention of practical deliberation in the generation of an act of free decision.

Thomas Aquinas emphasizes much more than Bonaventure the will's dependence on reason. His position is neatly summarized in a passage from the *Summa theologiae*:

> The root of freedom is the will as its subject, but reason as its cause. The will is, in fact, free with regard to alternatives, because reason can have different conceptions of the good. Accordingly, the philosophers defined free decision (*liberum arbitrium*) as free judgment owing to reason, implying that reason is the cause of freedom.
>
> (*Summa theol*. 1a2ae 17.1 ad 2)

For Aquinas, the will is a moved mover, a passive potency that is actualized by the object presented to it by the intellect.[2] As a rational appetite, the will's

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Duns Scotus (Paderborn: Schöning, 1971); and Odon Lottin, *Psychologie et morale aux XIIe et XIIIe siècles* (Gembloux: Duculot, 1948–60) I: 11–389. A further, though not always reliable, resource is Antonio San Cristóbal-Sebastián, *Controversias acerca de la voluntad desde 1270 a 1300: estudio histórico-doctrinal* (Madrid: Editorial y librería co., 1958).

[2] See, e.g., *Summa theol*. 1a 80.2c. In the late *Quaest. de malo* 6.1, Thomas emphasizes more than in previous texts the active character of the will.

proper object is the good apprehended as suitable. Thus one can desire some-
thing, whether in truth it be good or evil, only under the appearance of
the good (*sub ratione boni*).[3] For Thomas, this implies that the will cannot
desire or choose contrary to what the practical intellect judges in a particu-
lar instance to be best and most suitable.[4] Hence the will acts freely to the
extent that reason judges freely (*Quaest. de veritate* 24.1–2). A faulty will pre-
supposes some defect of knowledge or of judgment (ibid., 24.8c; *Summa theol.*
1a2ae 77.2c).

The free judgment of reason and the free inclination of the will are code-
pendent for Aquinas: reason moves the will, and the will moves reason, yet in
different respects. Reason moves the will by formal causality, "determining" or
"specifying" the will's act (desiring to study, choosing to take a walk). Yet reason
does not move the will by necessity, except when it proposes an object that is
good and suitable from every point of view, such as happiness. Conversely, the
will moves reason by efficient causality to exercise its act (to think or not, to
dwell on a consideration or not). The will also moves itself to exercise its act.
In virtue of desiring an end (such as health), it moves itself to desire a means,
and it moves the intellect to deliberate about which means to choose (taking
medicine, observing a diet). Thus the choice of the will is informed by the
judgment of reason resulting from deliberation. Even the decision to deliberate
depends on a previous deliberation. To avoid an infinite regress, Thomas posits
that the first movement of the will is due to an impulse from God, who moves
the will without imposing any necessity on it.[5] Besides initiating deliberation,
the will also governs the complexity and duration of deliberation. Whether a
judgment resulting from deliberation is definitive or only provisional depends
on whether the will adheres to it or moves reason to reconsider the options (cf.
Quaest. de malo 6.1 ad 15).

In his account of free decision, Thomas distinguishes, but does not separate,
the acts of intellect and will. Every act of the will is informed by an act of
the intellect, and the way in which one uses the intellect depends on the
will. The activities of intellect and will penetrate each other, and ultimately it
is the human person who moves him or herself to a choice by means of reason
and will.[6] Because Thomas considers acts of intellect and will to be blended in

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[3] See, e.g., *Summa theol.* 1a2ae 8.1, 1a2ae 9.1–2, *Quaest. de malo* 6.1c.

[4] See, e.g., *Summa theol.* 1a2ae 77.1c, 3a 18.4 ad 2, *Quaest. de veritate* 24.2c. Thomas does not, of
     course, deny that one can act contrary to conscience. A judgment of conscience (*iudicium conscientiae*)
     is merely theoretical, whereas the practical judgment that informs a choice (*iudicium electionis*) is
     constituted by thought and desire. Thus it may happen that the judgment of conscience remains
     intact, while the practical judgment is perverted. See *Quaest. de veritate* 17.1 ad 4.

[5] *Quaest. de malo* 6.1c; see also *Summa theol.* 1a2ae 9.1, 1a2ae 9.3, 1a2ae 10.2.

[6] See, e.g., *Summa theol.* 1a 82.4 ad 1, 1a2ae 17.1c, 1a2ae 17.5 ad 2.

this way, his doctrine does not neatly fit into the categories of intellectualism and voluntarism.[7]

INTELLECTUALISM BEFORE 1277

The most prominent intellectualist in the years prior to the condemnations of 1277 is Siger of Brabant. His concern is to reconcile necessity and free decision. Acts of free decision are caused by necessity, Siger believes, for, according to Avicenna, every cause causes its effect by necessity. Moreover, according to Aristotle, when something that moves draws near to a movable thing, if both are properly disposed, then it is necessary that the one cause motion and the other be moved.[8] Accordingly, the will is necessarily moved by its object when the object is present and the will is disposed to be moved by it; thus the will is neither the first cause nor first mover of its own acts.[9]

Against those who denied free decision on such grounds, Siger argues that the necessity involved in the will's act does not impair the will's freedom. The will is moved not by "absolute necessity" but "by conditional necessity" or "necessarily contingently,"[10] which belongs to a cause that can be impeded. Sensory appetites are determined in the first way, because the "judgment of the sense" is determined: the senses cannot judge something white not to be white, for example, or something pleasurable not to be pleasurable. The causality of the will's object, in contrast, may be impeded by practical deliberation. The judgment of reason regarding good and evil is not determined by the intellect's natural constitution, but remains open to contraries, and consequently the act

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[7] The interpretation of Thomas's account of free decision is debated with no less liveliness today than it was in the decades after his death. Odon Lottin argued long ago that voluntarism and intellectualism are not fit categories to describe Thomas's theory, see *Psychologie et morale* III.2: 651–66. For a summary of the more recent debate and for a case in favor of an intellectualist interpretation, see Jeffrey Hause, "Thomas Aquinas and the Voluntarists," *Medieval Philosophy and Theology* 6 (1997) 167–82. Robert Pasnau considers Aquinas a compatibilist (freedom coexists with determinism). See *Thomas Aquinas on Human Nature: A Philosophical Study of* Summa theologiae *1a 75–89* (Cambridge: Cambridge University Press, 2002) pp. 221–33. Cases against ascribing intellectual determinism to Thomas's explanation of free decision are made by David M. Gallagher, "Free Choice and Free Judgment in Thomas Aquinas," *Archiv für Geschichte der Philosophie* 76 (1994) 247–77, and Tobias Hoffmann, "Aquinas and Intellectual Determinism: The Test Case of Angelic Sin," *Archiv für Geschichte der Philosophie* 89 (2007) 122–56.

[8] Avicenna, *Liber de philosophia prima* 1.6 (ed. Van Riet, pp. 45–6); Aristotle, *Physics* VIII.1, 251b1–5. See Siger of Brabant, *De necessitate et contingentia causarum* (ed. J. J. Duin, *La doctrine de la providence dans les écrits de Siger de Brabant* [Leuven: Institut Supérieur de Philosophie, 1954], p. 32); *Quaest. in Metaphys.* [Paris] VI.9 (ed. Maurer, pp. 317 and 320); *Quaest. in Metaphys.* [Vienna] VII.1 (ed. Dunphy, p. 378).

[9] *Quaest. in Metaphys.* [Paris] VI.9, p. 325; *Quaest. in Metaphys.* [Vienna] VII.1, p. 386.

[10] For this distinction, see *Quaest. in Metaphys.* [Paris] VI.9, p. 321; *Quaest. in Metaphys.* [Vienna] VII.1, p. 380.

of the will is not predetermined.[11] Thus Siger can say that people become good or bad on account of their good or bad judgments. Still, there is a conditional necessity, because after a particular practical judgment has identified a particular course of action as the best, the will is not able to choose a contrary act (*Quaest. in Metaphys.* [Vienna] V.8, pp. 330–1). In this way, Siger seeks to uphold necessity while denying external determinism.

VOLUNTARIST WORRIES

Was Siger's defense of free decision successful? Not according to Stephen Tempier, the bishop of Paris. In 1270, even before Siger's lectures on the *Metaphysics* (from the mid-1270s), Tempier had condemned the views that the will chooses necessarily and that free decision is a passive power whose act is necessitated by the desired object. This condemnation did not stop Siger from professing his theory, however, and so it is hardly surprising that these claims appeared again in Tempier's more famous condemnation of 1277 (see Chapter 8). Among the 219 propositions solemnly condemned were the view that volitions are moved externally by necessity, together with assertions expressing a strict dependence of the will on the intellect, such as the view that the will cannot depart from the particular judgment of reason.[12]

Though these condemnations were targeted at arts masters and not at Thomas Aquinas, several of Thomas's critics argued that they affected some of his positions as well. Among the critics was William de la Mare, whose *Correctorium fratris Thomae* was highly influential because in 1282 it became obligatory reading for Franciscans who read Thomas's works. William interprets Thomas as holding that the judgment of reason necessitates the will's adherence, a view he saw articulated in three of the condemned articles.[13]

What was the rationale behind Tempier's condemnation of intellectualist propositions? The bishop did not provide any explanations himself, but Henry of Ghent's first *Quodlibet* of 1276 offers some hints. Henry, a secular master (unaffiliated with any religious order), was part of the sixteen-member commission

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[11] *Quaest. in Metaphys.* [Vienna] VII.1, p. 380; *Quaest. in Metaphys.* [Paris] VI.9, pp. 325–6; *De necessitate*, p. 35. For a thorough discussion, see Christopher J. Ryan, "Man's Free Will in the Works of Siger of Brabant," *Mediaeval Studies* 45 (1983) 155–99.

[12] Articles concerning the will that have a direct connection with Siger's writings are 131, 134, 194, and to some extent 158. See Roland Hissette, *Enquête sur les 219 articles condamnés à Paris le 7 mars 1277* (Leuven: Publications universitaires, 1977) pp. 230–63. For a useful collection of articles, see Jan Aertsen *et al.* (eds.) *Nach der Verurteilung von 1277: Philosophie und Theologie an der Universität von Paris im letzten Viertel des 13. Jahrhunderts* (Berlin: De Gruyter, 2001).

[13] William quotes articles 158, 159, and 164 (*Correctorium*, ed. Glorieux, p. 232).

of theologians who investigated the works of the arts masters at Tempier's behest and who compiled the list of propositions that the bishop condemned. Some of the condemned intellectualist articles uphold the very views that Henry opposed. In particular, he may well have been the motivating force behind the censure of the propositions that deny the will's freedom to accept or reject the practical judgment (articles 129, 130, 158, and 163) or to choose a lesser of two goods (article 208).[14]

This latter issue, the problem of the will's freedom to choose the lesser of two goods presented to it, was posed to Henry in his first quodlibetal disputation. For Henry, this problem turns on the question of whether freedom is principally rooted in the intellect or in the will. Against Aquinas, who traces freedom in the will to freedom of judgment, Henry argues that in order to avoid cognitive determinism one must posit something more than reason's freedom of judgment (*libertas arbitrandi*): one must further posit the will's "freedom to choose what is judged" (*libertas eligendi arbitratum*). Cognitive reason by itself is in fact not free, because the intellect has no control over its own cognition. Rather, it assents to a truth in proportion to that truth's evidence. If the will's acts depended exclusively on reason, they would not be free either. Far from causing the will's acts, the knowledge proposed by reason provides only the occasion for willing or, as Henry will say in later *Quodlibets*, its necessary condition (*causa sine qua non*). Knowledge does not move the will, but the will itself is a "first mover."[15] Denying that the Aristotelian axiom "whatever is moved is moved by another" applies to non-material things such as the will, Henry considers the will to be an active rather than passive power.[16] Later he will explain in detail why freedom presupposes self-movement of the will and how this is metaphysically possible.[17]

A consideration about sin confirms, for Henry, that freedom originates in the will rather than in reason. If the will were bound to follow reason, then a

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[14] The following provide a representative picture of what were the most debated articles. 129: "While passion and particular knowledge are in act, the will cannot act contrary to them." 130: "If reason is right, then the will is right. – Error, because it is contrary to a gloss by Augustine . . . and because according to this statement, grace would not be necessary for the rectitude of the will, but only knowledge, which is the error of Pelagius." 163: "That the will necessarily pursues what is firmly believed by reason, and that it cannot abstain from that which reason dictates. Yet this necessitation is not a coercion, but natural for the will." For the Latin text in a critical edition, see David Piché, *La condamnation parisienne de 1277* (Paris: Vrin, 1999) pp. 118, 126, 128.

[15] *Quodlibet* I.16, *Opera* vol. V, esp. pp. 98, 102, 107–8, 112. For the intellect as *causa sine qua non* of the will's act, see *Quodlibet* IX.5, X.9, XI.6, XII.26, XIII.10–11, and XIV.5.

[16] *Quodlibet* X.9. The Aristotelian axiom applies to natural but not spiritual powers (ibid., *Opera* XIV: 234 and *Quodlibet* XIII.11, *Opera* XVIII: 131–3).

[17] *Quodlibet* IX.5, XII.26, XI.6, XIII.11.

defective – that is, sinful – will must be traced to a cognitive defect. Yet, unless this cognitive defect is itself the fruit of a depraved will, the first occurrence of sin remains unexplained (*Quodlibet* I.16, *Opera* V: 112). On these presuppositions, Henry explains that incontinence (acting against one's better knowledge), occurs because this knowledge gets clouded due to passion. If passion clouded reason without the will's consent, however, and if the ensuing practical misjudgment necessarily entailed a disordered will, then it would not be up to free will whether one sins or not, but sin would follow in the natural course of events. Accordingly, throughout his entire career Henry holds the opposite view: a disorder of reason results from a disorder of the will, not vice versa.[18]

Since reason cannot compel the consent of the will – whereas the will can constrain reason to abandon its judgment – the will rather than reason is the highest power of the soul. Accordingly, Henry rejects Aquinas's view that "command" is an act of reason presupposing an act of the will (*Summa theol.* 1a2ae 17.1). Rather, for Henry it is the will that commands all the powers of the soul (*Quodlibet* IX.6, *Opera* XIII: 142–3). Henry calls the will the "first mover in the kingdom of the soul." Although it is true that the intellect directs the will, it does so not as the master directs the servant, but rather "as the servant ministers to the master by carrying before him the lantern at night so that the master does not stumble" (*Quodlibet* I.14, *Opera* V: 85, 90).[19]

An example of someone who abandoned an intellectualist view, presumably as a result of the condemnation, is Giles of Rome, who belonged to the order of the Augustinian Hermits and was probably a disciple of Aquinas. Giles came under pressure from Tempier for his views and had to leave Paris until his rehabilitation in 1285, several years after Tempier's death. In the same year, the Parisian masters of theology conceded a statement by Giles that Tempier had censured in 1277: "There is no evil in the will without error in reason." This came to be known as the "Magisterial Proposition" (*propositio magistralis*). At face value, this proposition seems to conflict with Tempier's condemnation of the intellectualist articles 129 and 130. Yet there was room for disagreement. Henry of Ghent distended the meaning of the *propositio magistralis* to make it fit the condemnation, while Godfrey of Fontaines argued conversely that the

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[18] Henry makes this point throughout *Quodlibet* I.17. He attributes his own view to Aristotle, giving a detailed commentary of *Nicomachean Ethics* VII; see *Quodlibet* I.17 ad 1.

[19] For the broad outline of his theory, Henry was indebted to Walter of Bruges, a Franciscan and a student of Bonaventure, whose writings on freedom date from the late 1260s. Walter had already argued that the intellect is not free, and that the root of freedom is therefore to be found in the will, which as an active power moves itself and is capable of acting contrary to the practical judgment. Walter also developed the image of the soul as a miniature world with the will as its king (*Quaest. disputatae* 4–5, ed. *Phil. Belges* X: 34–55).

Magisterial Proposition should be the criterion for interpreting the condemned articles.[20]

   After his rehabilitation, Giles developed an account of free decision that, although somewhat inspired by Aquinas, contained a strong voluntarist bent. Contrary to Henry, Giles holds that the will does not move without being moved. It needs to be "actuated" by the intellect's presentation of something good. If that object is not good from every point of view, then the will does not desire it necessarily. As long as one continues to engage in a "split consideration" (*consideratio bifurcata*) of the object's good and bad aspects, the will is not yet "determined" to pursue it or not. It must first determine itself to desire further consideration of the object. Then it can freely determine the intellect to focus on one aspect above another: for example, on the pleasure of committing adultery rather than its disorder. The practical judgment resulting from the consideration commanded by the will then informs the will's choice. It is thus that the will determines its own actions (*Quodlibet* III.15, ed. 1646, pp. 178–80). The intellect, which is indeterminate with regard to alternate possibilities, lacks the ability for self-determination. Thus it must be determined by the will, which is by nature capable of self-determination (*Quodlibet* IV.21, pp. 258–9). This is importantly different from Aquinas's account of the relationship between will and intellect. For Thomas, the will's activity is guided by reason from beginning to end, whereas, for Giles, the will directs the attention of reason according to its own liking. For Giles, the will's freedom presupposes the indetermination of the intellect, but it is not derived from the freedom of the intellect (ibid.).

INTELLECTUALIST REPLIES

Giles of Rome and, to an even greater extent, Henry of Ghent were severely criticized by Godfrey of Fontaines, a prominent secular master who was influenced by Siger of Brabant and Thomas Aquinas. Godfrey vigorously argues that any self-movement, including that of the will, is metaphysically impossible. For Godfrey, the Aristotelian principle that whatever is moved is moved by another holds true for the entire realm of being, including intellect and will. A reduction from potency to act requires not only that something already be in act, but also that the thing in act be really distinct from the thing in potency, for one and the same thing cannot be both in act and in potency with respect to itself.

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[20] Giles of Rome, *Sent.* I.17.1.1 (ed. 1521, f. 89vM), I.47.2.1 (f. 237rG); Henry of Ghent, *Quodlibet* X.9, X.10, X.13 (*Opera* XIV: 243–8, 258–71, 287–9); Godfrey of Fontaines, *Quodlibet* VIII.16 (ed. *Phil. Belges* IV: 165–6). See also Peter S. Eardley, "The Problem of Moral Weakness, the *Propositio Magistralis*, and the Condemnation of 1277," *Mediaeval Studies* 68 (2006) 161–203.

In this context, Godfrey's main adversary is Henry, who held that the will can move itself entirely on its own. To refute this view, Godfrey argues that even the more moderate view of the Franciscan Master John of Murro faces the same metaphysical obstacles as Henry's. For John, the will is capable of self-movement because the desired object causes in it inclinations (*affectiones*) that play a role analogous to that played by intelligible species in intellection.[21] For Godfrey, in contrast, "the will does not move itself, but is moved by the apprehended good according to the mode and form of the apprehension" (*Quodlibet* VI.7, ed. *Phil. Belges* III: 163). By itself, the will is indifferent with respect to specific volitions; since it cannot determine itself, the will needs to be determined by another. What determines the will is the object as evaluated in a practical judgment. The object thus apprehended moves the will as an efficient cause.[22]

In addition to the metaphysical problems that Godfrey finds in Henry's account of free choice, Godfrey attacks the theory as an unreasonable account of human agency. If the will moves itself, even contrary to practical judgment, its willing would be without any object and the practical intellect would be useless (*Quodlibet* VI.10, pp. 202–5; *Quodlibet* VI.11, p. 219). For Godfrey, the will can seek or shun only what practical judgment presents as desirable or undesirable. Since the will controls the exercise of the intellect only in virtue of a previous intellectual judgment, it has no autonomous power over the intellect (*Quodlibet* VIII.16, pp. 169, 176; *Quodlibet* X.13, pp. 375–6). The content of the practical judgment depends only indirectly and incidentally on the will, to the extent that previous actions cause a virtuous or vicious disposition that influences one's practical deliberation (*Quodlibet* VI.11, pp. 220–4). Not surprisingly, Godfrey rejects Henry's claim that the will is a higher power than the intellect (*Quodlibet* VI.10).

For Henry, the activity of reason is deterministic. This makes it necessary to accord to the will the freedom to depart from reason, in order to safeguard free decision. Giles, in contrast, considers the intellect to be indeterminate and in need of determination by the will, which alone is formally free. In contrast to both, Godfrey takes the intellect itself, no less than the will, to be formally free,

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[21] Godfrey, *Quodlibet* VI.7 (ed. *Phil. Belges* III: 150–8); *Quodlibet* VIII.2 (ed. *Phil. Belges* IV: 20–30). For the text of John of Murro's disputed question, see Éphrem Longpré, "L'œuvre scolastique du cardinal Jean de Murro, O.F.M. (†1312)," in *Mélanges Pelzer* (Leuven: Bibliothèque de l'Université, 1947) pp. 488–92. Godfrey's critique of Henry is directed against his *Quodlibet* XIII.11, where Henry opposes John of Murro's theory that *affectiones* are required for the will's self-movement and reiterates his own arguments for the will's ability to move itself, even without *affectiones*.

[22] *Quodlibet* VI.7 (pp. 158–64). For the efficient causality of the object on the will's act, see also *Quodlibet* VI.11 (p. 221); *Quodlibet* VIII.16 (ed. *Phil. Belges* IV: 173–4); *Quodlibet* XV.4 (ed. *Phil. Belges* XIV: 25).

because both are rooted in the immaterial soul.[23] In response to Giles's claim that the intellect is indeterminate with regard to alternate possibilities and needs to be determined by the will, Godfrey asks how the will can determine the intellect without being itself determined by some prior cognition motivating the will to determine the intellect in a specific way. Again, when Giles says that the will is naturally constituted so as to determine itself freely, Godfrey asks why he does not grant that ability to the intellect as well, since the two powers are equally immaterial. Godfrey assumes that the intellect no less than the will is free, but that neither can reduce itself from potency to act.[24] What resolves the initial indeterminacy with regard to an object of choice is practical deliberation, which is put into motion by an object that causes someone to know and desire it. When deliberation is completed, the will cannot will contrary to the determination of the practical judgment. Yet the deliberation itself is free, because it could have arrived at a different conclusion. Accordingly, following Siger of Brabant, Godfrey says that it is not by absolute but by conditional necessity that the will chooses the course of action that is determined by the practical judgment (*Quodlibet* VIII.16, pp. 159–61, 168–73). Godfrey considers his own account of free decision to be not only metaphysically more sound, but also more effective in safeguarding free decision (*Quodlibet* XV.4).

The difference between Godfrey's and Aquinas's accounts of free decision is subtle but important. First, Thomas admits that the will moves itself. When it desires an end (such as health), it moves itself to desire the means to the end (some medicine). Precisely in virtue of this self-movement, Thomas attributes to the will control over its act (*Summa theol.* 1a2ae 9.3). Godfrey, in contrast, denies that there is any self-movement of the will. The will does not move itself to desire the means to the end, but it is the apprehended object that causes the will to desire the end and the means (*Quodlibet* VIII.2, pp. 24–5). Second, for Thomas, what the will desires or chooses depends on the intellect as its formal cause, but not as its efficient cause. Though a formal cause has an influence on its effect, it does not move anything to a specific action. This means that although every act of the will is informed by the intellect, the intellect does not move the will to do one thing rather than another without the consent of the will. Whether or not the will actually wills something or not depends as its efficient cause on the will, not on the intellect. For Godfrey, however, both *what* the will desires and *whether or not* it desires depend on the apprehended object as the efficient cause. This means that, in his view, the intellect alone determines the will to

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[23] *Quodlibet* VIII.16 (pp. 149–50, 155–6, 175); see also VI.10 (pp. 206–9).
[24] *Quodlibet* VI.16 (p. 151); see also *Quodlibet* X.13 (ed. *Phil. Belges* IV: 373–6). Henry of Ghent critiques Giles's theory for the opposite reason: he thinks it still grants too great a role to the intellect and thus endangers free decision, *Quodlibet* XII.26–7.

desire or choose something in a particular instance. Last, contrary to Godfrey, Thomas denies that the intellect necessitates the will's adhesion to particular goods, unless they have a necessary connection to happiness (*Summa theol.* 1a 82.2c). In sum, for Godfrey, the activity of the will is entirely accounted for by the activity of the intellect apprehending and evaluating an object. For Thomas, conversely, although the will's activity is always informed by the intellect, it cannot be fully traced to the intellect's activity. The will never chooses without a reason, yet no full account can be given why it chooses for one reason rather than another.

VOLUNTARIST INNOVATIONS

Godfrey provoked strong reactions from the Franciscans. John Duns Scotus, drawing on the work of earlier Franciscans, formulates the objections against Godfrey and other intellectualists in a way that is both lucid and sharpens the contours of a voluntarist account of free decision. Scotus objects that to construe the will as completely dependent on the intellect for all its volitions would mean that human actions could be traced entirely to external things that are not under the person's control (*Lectura* II.25 nn. 28, 31). The heart of the matter for him is whether the will is the kind of thing that produces a given result in a given set of conditions. This is what characterizes "natural agents": when they are unimpeded and in proximity to the things they act upon, they produce in them determinate effects. The causality of the apprehended object is that of a natural agent; under like circumstances, it produces like results. Accordingly, the object itself cannot cause the acts either of willing or of not willing in a given situation, for to make the will dependent upon the causality of the object would undermine its freedom (ibid. n. 36). It is true that natural agents can cause opposite effects in different things, depending on what they are acting on. For example, the sun can cause ice to melt and mud to dry. Only the will, however, is such that it can determine itself to opposite acts: to will or not to will something. In this, the will differs from everything else in the universe (ibid. nn. 92–3).

Self-determination is what most fundamentally characterizes the will in comparison to the intellect, for the will elicits its act freely, whereas the intellect does not. Since the intellect does not have the power to understand or not, it is a natural power. Scotus pushes this idea even further: the will is most properly a rational power and the intellect an irrational power, if by 'rational' one means (with Aristotle) the capacity for contrary effects, and by 'irrational' the fact of being fixed to a specific effect.[25]

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[25] *Quaest. Metaphys.* IX.15 nn. 21–2, 35–41; cf. Aristotle, *Metaphys.* IX.2.

Scotus grants that the will itself can be considered a nature. As a nature, it has a natural inclination toward perfection, which Scotus identifies with Anselm's "inclination for benefit" (*affectio commodi*) (see Chapter 35). If the will were considered merely a rational or intellectual appetite, it would have only this inclination for benefit: it would not be in its power to will something other than that which the intellect presents as conducive to happiness. As a free power, however, the will has an additional "inclination for justice" (*affectio iustitiae*), which is precisely the innate freedom of the will with respect to opposite acts. Thanks to the will's inclination for justice, one can desire – or fail to desire – an intrinsic good, even when it conflicts with one's personal benefit (*Ordinatio* II.6.2 nn. 49–56).

Scotus stresses that the will's freedom with respect to opposite acts implies that it has alternate possibilities in the present and with respect to the same moment – not merely successively. (This doctrine has come to be known as "synchronic contingency.") The will obviously cannot *realize* alternate possibilities simultaneously, for it cannot will and not-will at the same time and in the same respect. But when the will wills *x*, it remains possible at that moment for it not to will *x*. So if there were a will that existed for just a single instant, it would be free then to choose between alternatives, and yet it could not choose them successively.

Scotus owes this account largely to Peter of John Olivi, a Franciscan from the generation before Scotus. If alternate possibilities were not open to the will in the present moment in which it chooses, its acts would be not contingent but necessary, as Olivi emphasizes. It does not suffice to say that the will acts freely because *prior* to its act, the opposite act was possible. This prior moment lies in the past, but the act in question is in the present. If every act of will is traced to an event that precedes its act, then it is never free. Thus to preserve the will's freedom, one must grant that in the present the will chooses contingently rather than necessarily, that is, that it chooses with respect to synchronic alternate possibilities.[26] With this novel theory, Olivi and Scotus shift the focus from the freedom of the will in relation to intellect towards the freedom of the will considered in itself.

Scotus offers a rigorous account of what characterizes the will: it is distinguished from all natural agents, including the intellect, in that it elicits its own act freely. He goes on to draw the ultimate consequence from this account: that one can never fully explain the will's acts by tracing them to antecedent factors. The ultimate reason why the will wills *x* lies in the will itself (*Quaest.*

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[26] *Lectura* 1.39 nn. 45–60; *Quaest. Metaphys.* IX.15 nn. 59–60, 64–6. See also Olivi, *Summa* II.42 (ed. Jansen, I: 705–6) and II.57 ad 10 (II: 348–53). For a lucid discussion, see Stephen D. Dumont, "The Origin of Scotus's Theory of Synchronic Contingency," *Modern Schoolman* 72 (1995) 149–67.

Metaphys. IX.15 n. 29). The causality of the desired object must be subordinate to the causality of the will – either as a partial cause, as Scotus teaches early in his career, or as a necessary condition (*causa sine qua non*).[27]

COROLLARIES

In accordance with their different explanations of free decision, intellectualist and voluntarist thinkers tend to have opposing views on central ethical themes. They generally agree that moral perfection involves not only acting according to right reason, but also having proper emotional responses. It is thanks to the moral virtues that the emotions are disposed in accordance with right reason. Contention arose, however, over where to place the moral virtues, that is, whether temperance, courage, and justice and their affiliated virtues should be placed in the sense appetite or in the will. The question thus concerned the role of the will with respect to moral virtues. Aquinas takes a middle position: for him, the moral virtues are located in the will or in a power moved by the will. He places temperance and courage in the sense appetite, and justice in the will (*Summa theol.* 1a2ae 56.3–4, 56.6). After Aquinas, the debate centers on the question of whether the will infallibly follows practical judgment. For instance, Henry of Ghent reports a view that all the moral virtues are located in the sensory appetite, for virtues are required in those powers that are indeterminate with respect to the judgment of reason. Such is the case, according to this view, only for the sense appetite, and not for the will, which is bound to follow practical judgment (*Quodlibet* IV.22, ed. 1518, ff. 138rP–138vP). Godfrey of Fontaines later defended this same opinion, arguing explicitly that not only temperance and courage, but also justice are located in the sense appetite (*Quodlibet* XIV.3, ed. *Phil. Belges* V: 341–3). For the opposite reason, Henry of Ghent placed all the moral virtues in the will, for unless the moral virtues incline the will to follow the practical judgment, the will does not command the sensory appetite in accordance with right reason. As a result of his voluntarism, therefore, he argued that the moral virtues are essentially in the will, and only derivatively in the sense appetite.[28]

Henry did not yet acknowledge the full implications of his account of free decision for virtue theory. If the will can act contrary to practical judgment, could there not be prudence on account of correct practical judgments, yet

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[27] *Lectura* II.25 nn. 69–73; *Reportatio* IIA.25 (cod. Turin, Biblioteca Nazionale Universitaria, K, ii, 26, f. 150ra). Cf. Stephen D. Dumont, "Did Duns Scotus Change His Mind on the Will?," in Aertsen *et al.*, *Nach der Verurteilung von 1277*, 719–94.

[28] *Quodlibet* IV.22, ff. 138vQ–140vA. For an excellent discussion, see Kent, *Virtues of the Will*, pp. 199–245.

without the moral virtues ensuing, in the event that the will does not choose accordingly? This would contradict the Aristotelian theory of the connection of the virtues, which was generally accepted at the time. According to Aristotle, prudence and the moral virtues presuppose each other, and when prudence is had, all the moral virtues are obtained as well (*Nicomachean Ethics* VI.12–13). Henry upholds the connection of the virtues, not because prudence entails moral virtue, but because vice entails imprudence (*Quodlibet* XII.14). Only Duns Scotus will draw the full consequence of the voluntarist account of free decision for virtue theory and deny that the virtues are connected (*Ordinatio* III.36 n. 72).

Intellectualist and voluntarist accounts of free decision have reverse strengths and weaknesses. Intellectualists emphasize that free acts must be rational and must intentionally refer to an object apprehended and evaluated by the intellect. Yet does the intellect do the whole work in free actions, even in sinful ones? Is moral deficiency ultimately due to defective reasoning? Voluntarists more easily account for the contingency of human actions, including the possibility of radical sin. But why would the will abandon what here and now is judged as the best option? Aquinas's theory seems to avoid the extremes: the practical intellect and the will so interpenetrate each other that they cannot be disentangled. Yet he does not offer answers to all the questions that the later debate would raise. The later debates thus provide valuable philosophical insights that can enrich earlier accounts.

EMOTION

SIMO KNUUTTILA

This chapter deals with the basic tenets of ancient philosophical theories of emotions, the reception and transformation of these in the Middle Ages, and some late medieval innovations, concentrating on how emotions were understood as psychological phenomena rather than on an analysis of particular emotions or their role in ethics. Although various theories of the soul influenced the general analysis of emotions, ancient thinkers usually accepted similar descriptions of paradigmatic emotions, such as desire, fear, or anger. This is also typical of later philosophical discussions. In the light of philosophical sources, some emotions look pretty much the same from the days of Plato and Aristotle to our time, while others have changed and still others have become unusual or disappeared (for example, some monastic feelings).[1]

ANCIENT THEORIES

The philosophical analysis of emotions was introduced by Plato and Aristotle, both of whom distinguished between various elements in occurrent emotions as follows. First, the *cognitive* element is an unpremeditated evaluation that states that something positive or negative is happening, either to the subject or to someone else in a way that is relevant to the subject. Second, the *affective* element is the pleasant or unpleasant feeling about the content of the evaluation. Third, the *dynamic* element is the spontaneous behavioral impulse towards a typical action. Fourth, associated with the affective element are *bodily* reactions which, as distinct from emotional feelings, may occur in other occasions as well.[2]

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[1] The Greek term for emotions is *pathos* and the usual medieval Latin terms are *passio* or *affectio*. The English word 'emotion' began to replace a variety of other terms in the nineteenth century. Although this is argued to be associated with creating a special category of "emotion" that essentially differed from "passion" (see, e.g., Thomas Dixon, *From Passions to Emotions: The Creation of a Secular Psychological Category* [Cambridge: Cambridge University Press, 2003]), dictionary definitions hardly suggest the rendering 'passion' rather than 'emotion' for Greek and Latin terms.

[2] See Plato, *Republic* IV, 435a–441c; *Timaeus* 69c–d; *Philebus* 33d–e, 43a–c, 47d–50d; Aristotle, *Rhetoric* I.10–11, II.1–11. For recent studies of emotions in ancient philosophy, see Martha Nussbaum, *The*

Table 31.1

		Time	
		Present	*Future*
Value	*Good*	Pleasure	Desire
	Evil	Distress	Fear

Historically, this compositional approach has been the most influential paradigm for thinking about emotions; it is often employed in philosophical psychology today as well. All ancient and medieval theories were cognitive – that is, they associated some kind of evaluation with an emotion. Even the Stoics, who did not accept the general scheme, endorsed this first stage. As for the affective component, Plato and Aristotle taught that emotions involved a pleasant or unpleasant awareness of oneself in a situation, and many ancient and medieval authors continued to be interested in the subjective aspect of emotion. In most ancient theories, moreover, emotions involved bodily changes in the heartbeat, vital spirits, humors, or facial expressions. While this was the prevailing medieval view as well, fourteenth-century voluntarists also introduced the conception of passions in the will, which had been traditionally regarded as an immaterial intellectual faculty.

Plato and Aristotle taught that human beings were naturally emotional, emotions being the reactions of an emotional part in the soul. The Stoics denied this. In accordance with their rational conception of the unity of the soul, the Stoics argued that emotions are essentially self-regarding judgments – false value judgments, by which people mistakenly evaluate things from their subjective perspectives, thus deviating from the rational view of reality codified in Stoic philosophy. The Stoics divided emotions into four basic types (as shown in Table 31.1), depending on whether the object is evaluated as a present or future good or a present or future evil. This is one of the most repeated classifications in the history of emotions, another being the Platonic division into concupiscible

Therapy of Desire: Theory and Practice in Hellenistic Ethics (Princeton, NJ: Princeton University Press, 1994); Juha Sihvola and Troels Engberg-Pedersen (eds.) *The Emotions in Hellenistic Philosophy* (Dordrecht: Kluwer, 1998); John Cooper, *Reason and Emotion: Essays on Ancient Moral Psychology and Ethical Theory* (Princeton, NJ: Princeton University Press, 1999); Richard Sorabji, *Emotion and Peace of Mind: From Stoic Agitation to Christian Temptation* (Oxford: Oxford University Press, 2000); William Fortenbaugh, *Aristotle on Emotion*, 2nd edn (London: Duckworth, 2003); Simo Knuuttila, *Emotions in Ancient and Medieval Philosophy* (Oxford: Clarendon Press, 2004); David Konstan, *The Emotions of the Ancient Greeks: Studies in Aristotle and Classical Literature* (Toronto: University of Toronto Press, 2006). A. A. Long and D. N. Sedley, *The Hellenistic Philosophers* (Cambridge: Cambridge University Press, 1987) includes a collection of Hellenistic texts on emotion with translation and commentary.

and irascible emotions.[3] Perhaps the best-known part of Stoic philosophy is the philosophical therapy of emotions (*therapeia*) described in works by Cicero, Seneca, and Epictetus. Stoic therapy aimed at *apatheia*, the extirpation of emotions, because emotions were regarded as false judgments. Other philosophical schools followed Plato and Aristotle, arguing instead for the moderation of emotions (*metriopatheia*). *Apatheia* was regarded as impossible and inhuman. Plotinus also argued for *apatheia*, though this did not involve the disappearance of the emotional part of the soul; earthly emotions simply become useless in higher Neoplatonic spheres.[4]

Early Christian thinkers were strongly influenced by Hellenistic discussions of emotions. The Alexandrian theologians Clemens and Origen, for example, combined Stoic and Platonist ideas, arguing that freedom from emotion was part of Christian perfectibility and the precondition of divinization through participation in divine love (*agape*). This mystical union was described in highly emotional language, although supernaturally caused spiritual feelings – as experiences of the apathetic soul – were not called emotions. Through John Cassian, this combination of supranatural love with freedom from earthly emotions ("purity of heart") became part of Western monasticism. The Cappadocian fathers and Augustine, in contrast, were more inclined to *metriopatheia*.[5]

In addition to relying on ancient therapy models, introspective monastic psychology took up two far-reaching topics related to emotions. The first was the Stoic doctrine of first movements, which Origen, followed by Augustine and many others, applied to the Christian conception of sin. The Stoic idea, described by Seneca in *On Anger* (2.1–4), was that even apathetic persons may react quasi-emotionally on an exceptional occasion; this is a brief reaction, however, and not really emotion because it does not involve judgmental assent. Augustine taught that the permanent inherited weakness of the soul

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[3] Pseudo-Andronicus, *Peri pathōn* 1.1 (Long and Sedley 65B); Stobaeus II.88.16–21 (Long and Sedley 65A). For more detailed lists of emotions classified in accordance with this typology, see pseudo-Andronicus, *Peri pathōn* 1.2–5; Diogenes Laertius, *Vitae philosophorum* VII.110–14; Stobaeus II.90.7–92.17 (Long and Sedley 65E); Cicero, *Tusculan Disputations* IV.11–22.

[4] There are extensive studies of the analysis and therapy of emotions in Stoic, Epicurean, and Platonist philosophy in Pierre Hadot, *Exercises spirituels et philosophie antique*, 2nd edn (Paris: Études Augustiniennes, 1987); Nussbaum, *Therapy of Desire*; Sihvola and Engberg-Pedersen, *The Emotions in Hellenistic Philosophy*; and Sorabji, *Emotion and Peace of Mind*.

[5] Knuuttila, *Emotions in Ancient and Medieval Philosophy*, pp. 113–76. The monastic therapy of sinful emotions is presented in John Cassian's *De institutis*; contemplative exercises described in the *Conlationes* show similarities to Origenist mystical theology as it was developed by Evagrius of Pontus. John Climacus's *Scala paradisi* (*The Ladder of Divine Ascent*) was the most influential treatise on *apatheia* and divine love in Byzantine theology. Augustine discusses the philosophical theories of emotions in Books IX and XIV of the *City of God*; see also Johannes Brachtendorf, "Cicero and Augustine on the Passions," *Revue des Études Augustiniennes* 43 (1997) 289–308.

(a consequence of original sin) inclines people to sinful things by producing sinful thoughts that become sins through consent: "We do not sin in having an evil desire but in consenting to it."[6] This was later developed into a detailed theory of the degrees of venial and mortal sin, depending on how much acceptance was involved.[7] Peter of Capua describes one development of these ideas at the start of the thirteenth century:

Sometimes a movement of the sensual part towards forbidden things, such as anger or fornication, arises without a thought or decision to realize or not to realize it, and this is always a sin, though a venial one. Some people draw a distinction here. They say that some of these movements are primarily first movements, namely those to which we do not offer any opportunity and that occur involuntarily, and they think that these are not sinful. Movements to which we offer an opportunity are secondary first movements, for example when someone goes to a party for recreation and something seen there gives rise to a first movement without a thought, and these are venial sins. We call both venial sins, but the latter are more serious.[8]

So when we expose ourselves to possible sensual influences – for instance, by going to a party – the fault is more serious. He goes on to say that one might think about the realization of a forbidden thing without a decision. If this consideration is of short duration, the act is a venial sin, but if it is longer, it is a mortal sin involving some sort of consent to pleasure, and so on.

The second influential monastic theme was mystical ascent (see Chapter 52). While the language continued to be affective, the mystical experiences described in emotional language were not regarded as standard emotions. In dealing with divinization, for example, Bernard of Clairvaux tries to find various metaphors for describing the experience of being affected by divine action (*sentire intra se actitari*).[9] This introspective analysis of subjective feeling is one of the philosophically interesting parts of medieval spiritual literature.

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[6] *Expositio quarumdum propositionum ex Epistola Romanos* (ed. Migne, *Patr. Lat.* 35: 2065–6); see also *De Trinitate* XII.12. For Origen's account of sins and first movements, see *De principiis* III.1.3–4. First movements were also called pre-passions (*propatheia*, *propassio*); see Knuuttila, *Emotions in Ancient and Medieval Philosophy*, pp. 64, 122, 143, 179–84, 186, 193–94.

[7] When Augustine said that a sinful thought leads to action through suggestion, pleasure, and consent (*suggestio, delectatio, consentio*), "suggestion" means a thought that can arouse an actual desire, "pleasure" its initial stage, and "consent" the acceptance of thinking about action with pleasure or the decision to act (*De sermone Domini in monte* 12.34–5). Most twelfth-century theologians dealt with the doctrine of sin and first motions. For medieval texts on this matter, see Peter Lombard, *Sententiae* II.24.6–12, II.33.5.5 and Odon Lottin, *Psychologie et morale aux XIIe et XIIIe siècles* (Gembloux: Duculot, 1948–60) II: 496–520 and V: 73–4, 222.

[8] Text quoted in Lottin, *Psychologie et morale* II: 499.

[9] *Opera* II: 10.28–9; III: 143.12–24; V: 205.17–19; see also Ulrich Köpf, *Religiöse Erfahrung in der Theologie Bernhards von Clairvaux* (Tübingen: Mohr, 1980) pp. 136–74.

EARLIER MEDIEVAL DISCUSSIONS

Most detailed twelfth-century Latin treatments of the emotions are found in the-ological and spiritual treatises influenced by the monastic traditions. An impulse to new approaches was supplied by new Latin translations of various Greek and Arabic philosophical and medical works. Among the authoritative medical works was Constantine of Africa's late eleventh-century partial translation of the Arabic medical encyclopedia of ʿAlī ibn al-ʿAbbās al-Majūsī, the *Pantegni*, which contains various remarks on the emotions based on Galen's medical philosophy. Some elements of ancient medical and philosophical theories of emotions were also included in Nemesius of Emesa's fourth-century *De natura hominis*, a work translated by Alphanus of Salerno (*ca.* 1080) and again by Burgundio of Pisa (*ca.* 1165). Parts of Nemesius's accounts of emotions were also copied in John of Damascus's *De fide orthodoxa*, which was translated into Latin by Burgundio of Pisa (*ca.* 1153). An important sourcebook for medieval philosophical psychol-ogy until the middle of the thirteenth century was the translation of the sixth book of Avicenna's *Shifāʾ* (*ca.* 1150) by Dominicus Gundisalvi and Avendauth, often called Avicenna's *De anima*. Aristotle's *De anima* was translated *ca.* 1150 by James of Venice. Its Latin reception was slow, the first commentaries being written in the 1240s. Avicenna made use of Aristotle's *De anima* as well as various Neoplatonic and medical sources.

The medical theory of the emotions concentrated on the Galenic ideas of the humors and the system of the spirits: the vitalizing spirits in the heart and the psychic spirits in the nerves and the brain. In the *Pantegni*, the physical aspects of the emotions were dealt with as movements of the vital spirits towards the heart or away from it. Using 'distress' instead of 'anxiety,' as later authors usually did, the classification is shown in Table 31.2. This was a well-known model until early modern times.[10]

Avicenna's treatises on the soul analyze and systematize psychological phe-nomena as activities of special powers or faculties. The faculties of the sensory soul are divided into apprehensive powers and moving powers. The apprehen-sive powers involve the five external senses and five internal senses, namely common sense, imagination, the imaginative power, the estimative power, and

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[10] *Pantegni*, Theorica VI.110–14; see Pedro Gil-Sotres, "Modelo teórico y observación clínica: las pasiones del alma en la psicología medica medieval," in *Comprendre et maîtriser la nature au Moyen Age: mélanges d'histoire des sciences offerts à Guy Beaujouan* (Geneva: Droz, 1994) 181–204. The elements of the Galenic physiology of emotions were also known through Nemesius's *De natura hominis*, as well as Avicenna's *De anima* and *Canon of Medicine*, among various other sources (see E. Ruth Harvey, *The Inward Wits: Psychological Theory in the Middle Ages and the Renaissance* [London: Warburg Institute, 1975]). For discussions of emotions in the medical school of Salerno (*ca.* 1200), see the anonymous texts edited by Brian Lawn in *The Prose Salernitan Questions* (London: Oxford University Press for the British Academy, 1979).

Table 31.2

		Direction	
		Centrifugal	*Centripetal*
Intensity	*Slow*	Joy	Distress
	Quick	Anger	Fear

memory. The moving powers are, in turn, divided into commanding moving powers and executive moving powers. Emotions are treated as acts of the sensory commanding moving power – reactions to evaluations of the sensory part of the soul that are accompanied by bodily affections and behavioral changes. The moving power of the intellectual soul is the will which, together with practical intellect, should control the emotions (*De anima* I.5; *Kitāb-al-najāt* II.6.2–4). The sensory commanding faculty is divided into the concupiscible and the irascible. The reactions of the concupiscible power are desires for things taken to be pleasurable, and the reactions of the irascible power are desires to defeat adversaries and repel things regarded as harmful.[11]

Avicenna also analyzed feelings as pleasant or unpleasant perceptions associated with estimative and moving acts, and he dealt with the physiological changes following the medical spirits.[12] An influential part of Avicenna's theory was that the estimative power moves the commanding power by noticing the helpful and harmful aspects of things, which are called 'intentions' (see Chapter 22). As an occurrent emotion involves acts of two separate powers, there must be a governing awareness that combines these two acts:

Again, we say 'When I perceived such and such thing, I became angry,' and this is a true statement, too. So it is one and the same thing that perceives and becomes angry . . . This is then due to its being in possession of a faculty by which it is capable of combining both these things.[13]

EARLY THIRTEENTH-CENTURY THEORIES

Dominicus Gundisalvi combined Avicennian themes with traditional Augustinian psychology in his treatise *De anima*, which consists to a great extent

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[11] *De anima* I.5 (ed. Van Riet, p. 83); IV.4 (pp. 56–7).

[12] For concupiscible and irascible acts, see *De anima* IV.4 (pp. 57–9), and, for cardiac and spiritual affects, ibid. (pp. 61–2). Pleasure and distress are characterized as apprehensions (ibid., pp. 57, 59) and *De medicinis cordialibus* (ed. Van Riet [in the same volume], pp. 192–4). Pleasant or unpleasant apprehensions may be about either bodily conditions or other states; see also *De anima* I.3 (pp. 65–6).

[13] *Kitāb-al-najāt* II.6.15 (tr. Rahman, pp. 65–6); see also *De anima* V.7.

of long quotations from the translation of Avicenna's *De anima*.[14] The central ideas of Avicenna's faculty psychology were also discussed in many thirteenth-century treatises before the turn to Aristotle's *De anima* in the 1240s.[15] David of Dinant suggested that emotions as psychic phenomena are caused by cardiac and spiritual changes, but this deviated from the standard view which John of La Rochelle put forward in his interpretation of Avicenna – namely, that commanding motive acts are reactions to evaluative acts and give impulses to behavioral changes and immediate physiological affections.[16] Avicenna's division of emotions into acts of concupiscible and irascible powers was repeated by John Blund, who also tried to combine it with Aristotle's view that these powers may have contrary acts.[17] An influential new classificatory idea for solving this problem was put forward in the anonymous *De potentiis animae et obiectis*. The objects of the contrary concupiscible acts were simply pleasurable or painful, whereas the objects of the irascible acts were in addition arduous – that is, difficult to obtain or to avoid (ed. Callus, pp. 159, 164).[18]

The most detailed early thirteenth-century classification of emotions is John of La Rochelle's taxonomy in his *Summa de anima*. Following Avicenna, he regarded emotions as the acts of two moving powers, the concupiscible and irascible, both of which have several reaction types, which are divided into contrary pairs. The concupiscible pairs are associated with contrary dispositions of liking (*placentia*) or disliking (*displicentia*) and irascible emotions with strength (*corroboratio*) and weakness (*debilitas*). The new systematic idea was to use these contraries as classificatory principles. John does not explain what he means by these "dispositions," but he probably had in mind the different ways of actualization, depending on the nature of representations and the state of the subject, and perhaps also various subjective feelings.

According to John of La Rochelle, the contrary emotions of the concupiscible are: (1) appetite (*concupiscentia*) and distaste (*fastidium*), which are the orientating

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[14] Excerpts from the passages on the emotions in Avicenna's *De anima* are quoted at pp. 80–2 (ed. Muckle).

[15] John Blund, *Tractatus de anima* (*ca.* 1210); the anonymous *De anima et de potentiis eius* (*ca.* 1225) and *De potentiis animae et obiectis* (*ca.* 1230); John of La Rochelle, *Tractatus de divisione multiplici potentiarum animae* (*ca.* 1233) and *Summa de anima* (*ca.* 1235).

[16] David of Dinant, *Fragmenta*, 36–9, 67–8 (cf. John Blund, *Tractatus de anima* ch. 25.4 n. 380); E. Maccagnolo, "David of Dinant and the Beginning of Aristotelianism in Paris," in P. Dronke (ed.) *A History of Twelfth-Century Western Philosophy* (Cambridge: Cambridge University Press, 1988) 429–42; John of La Rochelle, *Summa de anima* II.101, 104–10.

[17] *Tractatus de anima* ch. 6 n. 55, ch. 7.

[18] This became the standard thirteenth-century view. Various earlier divisions are discussed in Knuuttila, *Emotions in Ancient and Medieval Philosophy*, pp. 227–33, including those in William of St. Thierry's *On the Nature of the Body and the Soul*, Isaac of Stella's *Letter on the Soul*, and the anonymous *On the Spirit and the Soul*, all translated in B. McGinn (ed.) *Three Treatises on Man: A Cistercian Anthropology* (Kalamazoo, MI: Cistercian Publications, 1977), as well as the division in Hugh and Richard of St. Victor.

reactions toward something attractive or unattractive at the sensory level; (2) desire (*desiderium*) and aversion (*abhominatio*), the stronger forms of the basic reactions; (3) joy (*gaudium*) and pain (*dolor*), which are felt when the desire is fulfilled or when that which one seeks to avoid happens; (4) delight (*laetitia*) and distress (*tristitia*), which are caused by the thought that the actualized pleasant or unpleasant state of affairs will be of longer duration; (5) love (*amor*) and hatred (*odium*), the acts of desiring something good or something evil to somebody else; and (6) envy (*invidia*) and pity (*misericordia*), of which the former is an act of disliking with respect to another person's prosperity and the latter one with respect to another person's troubles.

Of the emotions of the irascible power and its "arduous and difficult objects," (1) ambition (*ambitio*) and (2) hope (*spes*) pertain to future honor and excellence, hope involving the belief that they will be achieved. The opposite of ambition is poverty of spirit (*paupertas spiritus*) and the opposite of hope is despair (*desperatio*). Three emotions are associated with attempts to strengthen one's social ranking and power: (3) pride (*superbia*), (4) lust for power (*dominatio*), and (5) contempt (*contemptus*). The opposite of pride and lust for power is humility (*humiliatio*), and the opposite of contempt is reverence (*reverentia*). Of the acts directed towards evil things, (6) courage (*audacia*) is a desire to meet the enemy with the confidence that one is going to win, (7) anger (*ira*) is a desire for revenge, and (8) magnanimity (*magnanimitas*) is rising up against evil. John mentions three further emotions that represent various forms of the flight from evil and are somehow opposites of courage: penitence (*paenitentia*) toward past evil things, impatience (*impaciencia*) with present evil things, and fear (*timor*) of future evil things (*Summa de anima* II.107).[19]

ALBERT THE GREAT AND THOMAS AQUINAS

Also following Avicenna's faculty psychology, Albert the Great and Thomas Aquinas treated emotions as acts of the sensory moving powers caused by external objects by means of the evaluations of the estimative power, and necessarily accompanied by changes in the movements of the heart and the spirits. While Albert employed the classifications of Nemesius of Emesa and John of Damascus, Thomas Aquinas put forward a new taxonomy (which was probably influenced by John of La Rochelle). Albert was interested in the question of why emotions were called movements; in his opinion they should be regarded as qualities, as Aristotle described them in *Categories* 8. Aquinas deviated from his teacher here, contending that emotions are indeed movements of the soul,

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[19] There is a longer list of concupiscible and irascible emotions in William of Auvergne's roughly contemporary *De virtutibus*, chs. 16–18.

and finding the basic classificatory principles of emotions in Aristotle's doctrine of contrary movements in *Physics* V.5.[20]

   Aquinas's discussion of emotions in *Summa theologiae* 1a2ae 22–48 is the most extensive medieval treatise on the subject. Emotions are first divided on the basis of their generic objects, so that the concupiscible emotions react to what seems good or evil at the sensory level (for short, *sense-good* and *sense-evil*), whereas the irascible emotions react to arduous sense-good and sense-evil. Although the sensory moving faculties are activated by these objects through cognition, the modes of the resulting emotional movements serve as further qualifications in defining particular emotions (ibid., 23.1, 4). The Aristotelian contraries of movements are of two types: approach to something and retreat from it, as in coming to be something and ceasing to be it, or movements associated with contrary endpoints: thus bleaching, the movement from black to white, is the contrary of blackening, the movement from white to black. The contrary movements of the concupiscible power are of the second type, since there are no sensory motive acts away from the sense-good or towards the sense-evil except accidentally. Irascible emotions – with the exception of anger – are contrary movements of the irascible power with respect to objects of the same kind. The arduous future sense-good may give rise to (1) hope or (2) despair, the arduous future sense-evil to (3) fear or (4) courage, and the arduous present sense-evil to (5) anger (ibid., 23.2–3). The movements of the concupiscible power are of three types:

It is clear that everything which tends to an end first has an aptitude or proportion to the goal, for nothing tends to a disproportionate end; second, it moves towards the end; third, it comes to rest in the end once it has been attained. The aptitude or proportion of the appetite to a good thing is love, for love is precisely the liking of some good, the movement towards the good is desire or concupiscence, and resting in it is joy or pleasure.

(ibid., 25.2)

So (6) love, (7) desire, and (8) pleasure or joy are the three concupiscible emotions with respect to the sense-good; the contrary movements with respect to sense-evil are (9) hatred, (10) aversion, and (11) pain or distress (ibid., 23.4).[21]

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[20] For Albert the Great, see *De homine* (*Summae de creaturis secunda pars*) qq. 66–7; *De bono* 3.5.2, 3.5.3; *Commentarius super Librum de sex principiis* 2.1, 2.5, 3.1–2. For the estimative power in Avicenna and Aquinas, see Deborah L. Black, "Imagination and Estimation: Arabic Paradigms and Western Transformations," *Topoi* 19 (2000) 59–75.

[21] For Aquinas's taxonomy, see also Peter King, "Aquinas on the Passions," in S. MacDonald and E. Stump (eds.) *Aquinas's Moral Theory: Essays in Honor of Norman Kretzmann* (Ithaca, NY: Cornell University Press, 1999) 101–32. Aquinas also arranges emotions on the basis of the order of occurrence. Love and hatred are preconditions of any further affective involvement (1a2ae 25.3).

Aquinas is impressed by the possibility of dealing with emotions with the help of the general theory of motion derived from Aristotelian natural philosophy. He sometimes distinguishes between love, desire, and pleasure as the incipient movement, actual movement, and rest of a subject with respect to an object. This, however, seems to imply a confusing identification of the emotions with the behavioral changes they are supposed to cause (ibid., 25.2, as quoted above). Sometimes emotions are characterized as movements of the moving power, but it remains unclear how the differences between these movements should be understood (ibid., 30.2; see also 23.4). While these movements constitute the formal part of an emotion, physiological changes – such as the movements of the heart, the spirits, and the humors – are the material part (ibid., 28.5, 44.1). A further problem in applying the general theory of natural movements to emotions is how to describe pleasure and distress. Aquinas explains that even though one can speak about a stone as loving its natural place and desiring to be there, it does not make sense to speak about the pleasure or pain of a stone, since these involve an awareness of one's state (ibid., 41.3). He seems to think, like Aristotle and Avicenna, that pleasure or distress is a pleasant or unpleasant awareness of oneself.

In addition to these matters of classification and general analysis, Aquinas's main discussions of emotions in the *Summa theologiae* involve detailed termi-nological, psychological, and ethical remarks on each particular emotion type. Like all medieval authors, Aquinas argues that the intellectual soul should keep emotions under strict control, but he also criticizes the Stoic ideal of *apatheia*, partially following Augustine, and he remains aloof from Plotinus's version of the freedom from emotion, which was known to him through Macrobius's *Commentary on the Dream of Scipio* (ibid., 24.3, 59.2, 61.5).[22] Aquinas's theory was very influential until the seventeenth century.[23]

For some problems in this theory and in Aquinas's conception of emotions as contrary movements, see Knuuttila, *Emotions in Ancient and Medieval Philosophy*, pp. 242–53.

[22] For various interpretations of the role of emotions in Aquinas's ethics, see Mark Jordan, "Aquinas's Construction of a Moral Account for the Passions," *Freiburger Zeitschrift für Philosophie und Theologie* 33 (1986) 71–97; Judith Barad, "Aquinas on the Role of Emotion in Moral Judgement and Activity," in B. C. Bazán *et al.* (eds.) *Les philosophies morales et politiques au Moyen Âge* (New York: Legas, 1995) II: 642–53; Eileen Sweeney, "Restructuring Desire: Aquinas, Hobbes, and Descartes on the Passions," in S. F. Brown (ed.) *Meeting of the Minds: The Relations between Medieval and Classical Modern European Philosophy* (Turnhout: Brepols, 1998) 215–33; Claudia Eisen Murphy, "Aquinas on our Responsibility for our Emotions," *Medieval Philosophy and Theology* 8 (1999) 163–205; Andrea Robiglio, *L'impossibile volere: Tommaso d'Aquino, i tomisti e la volontà* (Milan: Vita e Pensiero, 2002).

[23] Giles of Rome added an opposite of anger to Aquinas's list and was followed by John of Jandun; see Costantino Marmo, "Hoc autem etsi potest tollerari . . . Egidio Romano e Tommaso d'Aquino sulle passione dell' anima," *Documenti e studi sulla tradizione filosofica medievale* 2 (1991) 281–315; "Retorica e motti di spirito. Una 'quaestio' inedita di Giovanni di Jandun," in P. Magli *et al.* (eds.) *Semiotica: storia, teoria, interpretazione* (Milan: Bompiani, 1992) 23–41. Aquinas's taxonomy is found in Peter

SCOTUS AND LATE MEDIEVAL DISCUSSIONS

John Duns Scotus gives up the idea of appealing to arduousness to distin-
guish between concupiscible and irascible emotions, regarding irascible emo-
tions instead as aggressions.[24] Furthermore, Scotus argues against the influential
Avicennian idea that there are "intentions" in things that can be grasped by an
estimative power; instead, he claims that representations of a certain kind simply
cause behavioral changes in certain animals and others in others (*Ordinatio* III.15
nn. 34–42; see also *Ordinatio* I.3.1.1–2 n. 62).

   The most original part of Scotus's approach to emotions is to question the
sharp divide between the passions of the sensory soul and the analogous phe-
nomena in the will. According to Scotus, grasping the things that are called
helpful or harmful necessarily moves the sensory emotional part. Being help-
ful or harmful with respect to voluntary acts is something else because the
will is a free cause. This is an important part of Scotus's voluntarism (see
Chapter 30). When a person voluntarily desires something and achieves it, the
next step is the apprehension of the actuality of what was desired. Regarding
this stage, Scotus says, "there follows a passion of the will, joy or distress, which
is caused by the object present in this way." These passions are not caused by
the will as a free cause:

> Distress, properly speaking, is a passion of the will, as is seen from the fact that it is not
> any of its actions or operations . . . This passion is not in the will through the will's being
> its efficient cause, because then it would be immediately under the power of the will, as
> volitions or nolitions are. But this is not the case, for when one wills against something
> and it happens, it is seen that the subject does not have distress under one's immediate
> power.
>
> (*Ordinatio* III.15 n. 48)

According to Scotus, there are in the will immediate acts of liking and disliking,
complacentia and *displicentia*, which are not yet efficacious acts; second, there are
efficacious acts, which Scotus calls elections; third, there is pleasure and distress.
That these are not free acts is clearly seen in the fact that people cannot restore
pleasure or expel distress by simply willing it. While extending the traditional

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    of Ailly's influential *Tractatus de anima* (ed. Pluta, pp. 30–1, 90–2), and as a classificatory framework
    in John Gerson's *Enumeratio peccatorum ab Alberto posita* (*Œuvres* IX: 158–61), which involves the
    longest medieval list of emotions, with some 100 items. While Cardinal Cajetan defended Aquinas's
    classification against Scotus's criticism, Suárez did not find convincing reasons for it. See Peter King,
    "Late Scholastic Theories of the Passions: Controversies in the Thomist Tradition," in H. Lagerlund
    and M. Yrjönsuuri (eds.) *Emotions and Choice from Boethius to Descartes* (Dordrecht: Kluwer, 2002)
    229–58.
[24] *Ordinatio* III.34 (*Will and Morality*, pp. 358–9). Peter of John Olivi had earlier criticized the assump-
    tion of two sensory moving powers; see *Summa* II.69 (ed. Jansen, II: 626–28).

terminology of emotions as the passions of the sensory soul to include pleasure and distress as the passions of the will, Scotus also treats liking and disliking, the unpremeditated first reactions and necessary concomitants of other acts, as analogous to sensory emotional reactions, except that they are free acts (*Lectura* II.6.1, n. 13; II.2, n. 26; *Ordinatio* III.33, n. 55). William of Ockham's theory of emotions is largely based on Scotus's ideas.[25] John Buridan, who otherwise follows Scotus and Ockham in this area, states that the first orientations of the will (*complacentia*, *displicentia*) are not free and are in this respect similar to pleasure and distress (*Quaest. Ethic.* X.2).

Scotus presents a detailed list of the factors that are sufficient to cause distress as a passion of the will. These involve apprehensions that (1) something takes place contrary to one's actual will against it, (2) what is willed takes place when it is willed in circumstances in which the opposite is preferred but cannot be achieved, for example, throwing cargo away in order to save the ship, (3) something happens contrary to one's natural inclination to happiness (*affectio commodi*) even though no particular act of will is actual, and (4) something happens contrary to the emotional dispositions of the sensory soul. There are also corresponding factors sufficient to cause pleasure in the intellectual part of the soul (*Ordinatio* III.15 nn. 50–60).

This analysis shows that the intellectual soul is very emotional. Its feelings change not merely on the basis of actual volitions or nolitions, but also on the basis of the inclinations of the will and the sensory part of the soul. Because these states greatly influence the activities of people, Scotus tends to shift the discussion of moral virtues from the sensory passions to the intellectual soul, seeing the practical goal of moral education as giving strength to the inclination for justice (see Chapter 35) and other good habits. This is possible through our indirect control over psychic pleasure and distress – if the habits of willing are changed, the occasions for feeling pleasure or distress are also changed.[26]

Scotus's discussions of the emotions of the soul are associated with the theological question of whether love and pleasure (*dilectio* and *delectatio*) are really distinct in eternal enjoyment (*fruitio*). His view is that they are, because love is a free act of the will and pleasure is not. One theological argument for this distinction is that the devil loves things and has experiences of the fulfillment of his will, but no pleasure (*Reportatio* I.1.3, ed. Wadding XI: 26–7). While Ockham follows Scotus here, some others, including Walter Chatton, Adam Wodeham,

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[25] See Vesa Hirvonen, *Passions in William Ockham's Philosophical Psychology* (Dordrecht: Kluwer, 2004).

[26] See also Olivier Boulnois, "Duns Scot: existe-t-il des passions de la volonté?" in B. Besnier *et al.* (eds.) *Les passions antiques et médiévales: théories et critiques des passions* (Paris: Presses Universitaires de France, 2003) I: 281–95.

and Gregory of Rimini, found it problematic that there could be eternal vision and love of God without pleasure, which Scotus considered logically possible.[27]

Influenced by Scotus's idea of emotional will, but turning in another direction, Adam Wodeham argues that volitions and nolitions are evaluations, to which all human emotions can be reduced because of the unity of the soul.[28] This assimilation of emotions to evaluative thoughts is to some extent similar to the Stoic theory, although Wodeham does not refer to Stoic authors or share their criticism of emotions.[29]

Medieval theories of emotion would be discussed in such influential Renaissance works as Gabriel Biel's *Collectorium* on Lombard's *Sentences* (III.26) and the commentaries on Aquinas's *Summa theologiae* by Cardinal Cajetan, Bartolomé de Medina, and Francisco Suárez. Many sixteenth-century theologians comment on the differences between the theories of Scotus and Aquinas, whose writings themselves continue to influence later discussions.[30] It is of some interest to notice that in his popular early sixteenth-century encyclopedia *Margarita philosophica*, Gregor Reisch puts forward John of La Rochelle's taxonomy of emotions, though without mentioning his name (12.4–5).[31] Through these and other routes not yet systematically studied, medieval views pass on into early modern philosophy.

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[27] See A.S. McGrade, "Enjoyment at Oxford after Ockham: Philosophy, Psychology and the Love of God," in A. Hudson and M. Wilks (eds.) *From Ockham to Wyclif* (Oxford: Blackwell, 1987) 63–88; Severin Kitanov, "Beatific Enjoyment in Scholastic Philosophy and Theology 1240–1335" (Ph.D. dissertation: University of Helsinki, 2006).

[28] *Lectura secunda*, prol. q. 1 secs. 2, 5–6; d. 1 q. 5, secs. 4–5, 11. For Wodeham and other late medieval thinkers, see Knuuttila, *Emotions in Ancient and Medieval Philosophy*, pp. 275–86.

[29] For late medieval interest in Seneca's view of emotions, see Jill Kraye, "Moral Philosophy," in C. B. Schmitt and Q. Skinner (eds.) *The Cambridge History of Renaissance Philosophy* (Cambridge: Cambridge University Press, 1988) pp. 360–70; Letizia Panizza, "Stoic Psychotherapy in the Middle Ages and Renaissance: Petrarch's *De remediis*," in M. J. Osler (ed.) *Atoms,* Pneuma*, and Tranquility: Epicurean and Stoic Themes in European Thought* (Cambridge: Cambridge University Press, 1991) 39–65.

[30] See King, "Late Scholastic Theories of the Passions"; Robiglio, *L'impossibile volere*, pp. 35–42, 115–19; Amy M. Schmitter, "17th and 18th Century Theories of Emotions," in E. Zalta (ed.) *The Stanford Encyclopedia of Philosophy* (http://plato.stanford.edu).

[31] For ancient and medieval themes in Juan Luis Vives's influential *De anima et vita*, see Lorenzo Casini, "Cognitive and Moral Psychology in Renaissance Philosophy: A Study of Juan Luis Vives' *De anima et vita*" (Ph.D. dissertation: University of Uppsala, 2006) pp. 131–59.

WEAKNESS AND GRACE

RICHARD CROSS

That human beings sometimes act wrongly – be it through ignorance, weakness, or malice (deliberate wrongdoing) – is a commonplace of human experience; that divine grace can help them avoid such wrongdoing is a central feature of Christian doctrine, and thus accepted by all the Christian philosophers whose work is the principal focus of this chapter. These philosophers also accepted that the possibility of weakness – sometimes, but not always, characterized as weakness of will – results from a decisive sin of the first human beings. This "original sin" introduced the kind of disorder into human psychology that is, according to the medieval philosophers, the major component of moral weakness. Grace begins, among other things, the process of reordering this defective psychology. Two very disparate figures inform the presentation of these various issues in the high Middle Ages: Augustine and Aristotle. From Augustine, the medievals derived accounts of original sin, of grace, and – most importantly of all – the beginnings of a theory of consent somehow distinct from both reason and emotion; from Aristotle, they derived an account of moral weakness that they sometimes struggled to integrate with Augustinian teachings on the will, a view of the virtues that informed their account of grace, and a theory of motion that they used to talk about God's activity in the soul.

WEAKNESS AND WILL

Technically, weakness of will (usually *akrasia* in Greek, the technical translation of which term in Latin is *incontinentia*) is exhibited in those cases of action in which an agent acts against what he or she believes to be good. The phenomenon presents a particular problem for those who believe that human action is in principle always rational – a belief that was commonplace in traditions deriving from Socrates, who held that all wrongdoing is explained by ignorance (see Aristotle, *Nic. Ethics* VII.2, 1145b27–31). On this account, there is no room for *akrasia* at all, and our impression that some of our acts are akratic is itself simply mistaken. This conclusion is felt by most people to be counterintuitive;

one way of allowing for *akrasia* is to maintain, with Plato, that human decisions are affected not merely by rational beliefs about the good, but also by irrational desires (emotions or passions) that can cause people to act against reason, causing them either to avoid goods or to desire evils (by means respectively of what the later tradition would call "irascible" and "concupiscible" appetites) (Plato, *Republic* IV, 439c–41c).

Aristotle held that this Platonic view, unmitigated, entails that we are coerced by emotion, and thus that we are not responsible for akratic actions (*Nic. Ethics* VII.2, 1145b23–4). Aristotle agreed, however, that the soul should be thought of as possessing different parts (deliberative and appetitive or emotional), and he maintained too that emotion, even while leaving choice (for the good) unaffected, can have some effect on human action – sometimes, in fact, causing people to act against their choices (ibid., VII.10, 1152a15–17). Specifically, it can lead people to prefer a lesser good to the one that they choose by means of their deliberative processes. It does this by causing some kind of temporary ignorance of the application of a good general principle to the particular case at hand, such that the *akratēs*, whether or not he believes his action to be good, certainly fails to realize that the proposed action should not be done.[1] Postulating this sort of ignorance allowed Aristotle to avoid the undesirable conclusion that reason is simply overcome by emotion, and thus it allowed him to accept that akratic actions are blameworthy. But it has the curious consequence that, at the moment of action, we do not seem to know that what we are doing is wrong; in this sense, it is difficult to maintain that the action, at the time of the action itself, is against our (rational) choice. The settled intellectual error proposed by Socrates is in these cases simply replaced by temporary forgetfulness. So it is hard to see that Aristotle has really got an account of *akrasia* at all. Whatever we make of this assessment of Aristotle's account, however, he held that *akrasia* or incontinence can be avoided in two ways: by continence, leaving the emotions disordered but allowing the agent to control them (ibid., VII.2, 1146a12–16), and by temperance, bringing order to the emotions themselves (ibid., 1146a11–12; VII.9, 1152a1–2).

Clearly, then, talk of weakness of *will* is an odd way of talking about *akrasia* in this classical philosophical context, though as we shall see it is singularly appropriate for some of the Christian writers who are the main focus of this chapter. For Christian writers developed an account of the will as a faculty distinct both from reason and emotion. The will intervenes between deliberation and action, such that the mere combination of belief about what should be done and the influence of passion is not sufficient for action. What is required,

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[1] *Nic. Eth.* VII.3, 1147b1–5, 9–18. See also VII.2, 1146b22–24 and VII.8, 1151a11–14.

minimally, is a capacity for *consenting* to one or other of two conflicting desires. The beginnings of such an account, in the context of the performance of actions that are somehow against the agent's considered judgment, can be found in Augustine. Augustine adapted from the Stoics the notion of consent: specifically, in Augustine's account, the notion of consenting to the stronger of two conflicting desires (*De civ. Dei* IX.4; *De sermone domini in monte* I.12.34). This application of the notion of consent is rather different from the Stoics', who spoke of rational consent in the context of a denial of different parts of the soul, to explain the overcoming of emotion: refusing consent to an emotional pull is a way of securing good activity in accord with reason. Like Aristotle, and unlike the Stoics, Augustine did not believe that all emotions are bad. He did believe, however, that as a result of the sin of Adam, all human beings have an inclination to seek the satisfaction of their (bad) emotional longings – longings that he identified as concupiscence (*concupiscentia*) – that is in conflict with humans' beliefs about what they should do (*Confessions* VI.11.20). A human being consents to whichever "pull" is stronger – concupiscence or reason – and in the case that concupiscence is stronger, sins (*Conf.* VIII.9.21, VIII.10.24). To this extent it is possible both to act and to choose against better judgment, and even reluctantly so, in the sense that it is possible to consent to the stronger pull of emotion against the influence of reason (*De spiritu et littera* 31.53). Indeed, Augustine's considered view is that human beings without the benefit of additional divine aid – that is, without grace – cannot avoid consenting in this way, and thus cannot avoid choosing badly (see, for example, *Contra duas epistolas Pelagianorum* III.8.24).

The crucial difference between this account of sinful action and Aristotle's account of akratic action is that on Augustine's theory the sinful action is consented to, and thus *chosen*; this insight ultimately requires the development of a fuller doctrine of the will to provide the relevant explanation of weakness. (It is tempting to think that, with the inclusion of this additional factor, the problem of *akrasia* simply disappears, since on the face of it akratic actions can be explained straightforwardly by appeal to a defective will. But this, as we shall see, oversimplifies a much more complex picture.) Historically, Augustine's account influenced the medieval West before Aristotle's did, since the relevant Aristotelian discussions were not available in Latin until Robert Grosseteste's translation of the complete *Nicomachean Ethics* in 1246–7. So voluntaristic accounts of weakness dominated the earlier Middle Ages, with Aristotelian ones reappearing rapidly from the 1250s onwards.

The Augustinian claim that choice is not always in accord with reason, and that it can sometimes instead be in accordance with the pull of emotion, found important support and development in Bernard of Clairvaux, who was the

first writer to talk of the problem specifically in terms of weakness of will. When agents find themselves in cases where reason and emotion are in conflict, he claims, they can consent to one or the other of two options; weakness of will (*infirmitas voluntatis*) is exhibited in those cases where they consent to the emotional drive rather than the rational one (*De gratia et libero arbitrio* 12.38). Advancing from Augustine's view, Bernard explicitly holds that neither reason nor passion can necessitate this consent (*De gratia et libero arbitrio* 2.4–5).

There is no doubt of the importance of Bernard's teaching for the later tradition. Putting the matter very simply, what the thirteenth-century masters added was a conception of the will as a *faculty* distinct from both reason and emotion. The impetus for this distinction came from two different thinkers, both themselves influenced by sources in antiquity. The first is John of Damascus, whose *De fide orthodoxa* (translated into Latin in 1153) distinguished between *rational* appetite, or will, and two *irrational* appetites, the irascible and concupiscible (*De fide orthodoxa* 2.12 n. 15). The second is Avicenna, whose so-called *De anima* (the sixth book of his *Shifā'*) was translated into Latin in 1152–66. Avicenna holds that human beings possess both animal and rational souls, and that each type of soul includes both apprehensive and motive powers (*Liber de anima* I.5). This psychology thus allows for sense apprehension and appetite in addition to intellectual apprehension and appetite – that is, reason and will. This refinement of the Platonic division of the soul further allows for the Stoic notion of *consent* to be located in the will, and thus it allowed for a notion of choice or consent that does not reduce the appetitive component of human activity merely to the level of emotional pull.

A third important influence on some theories of the fourteenth century was Anselm's account of two affections or inclinations that each human being possesses (see Chapter 35). As Anselm sees it, human beings – and created rational beings in general – are inclined to act both in accordance with what is just and in accordance with what is beneficial (see *De casu diaboli* 4). Anselm refers to these inclinations as "wills," and later thinkers would identify these inclinations as belonging to a specific faculty or causal power, namely the will; thus, the will itself was seen as having inclinations to sometimes very different actions.

With these basic distinctions in place, we can begin to classify the positions of various philosophers by considering the following pair of questions. First, is weakness of will the result (loosely speaking) of something internal to the will, or not? Second, is the opposite of weakness (continence or temperance) the result of something internal to the will, or not? The response to the first question offered by someone broadly sympathetic to Aristotelian explanations of action would be that incontinence is caused by emotions (of the sense appetite). But

someone more minded to develop some of the suggestions from the Augustinian tradition might be more likely to answer in terms of (Anselm-style) inclinations, or of involuntary reactions (emotions) *intrinsic* to the will, or even in terms of the will's liberty of indifference (such that a person could, in exactly the same circumstances and with exactly the same set of antecedent beliefs, choose either to act or to refrain from acting). In line with this, thinkers inclined more in the direction of an Aristotelian-style action theory would very likely locate some moral virtues in the sense appetite, ordering the emotions so as not to be negative influences on intellectual deliberation. A more voluntaristic thinker might be more inclined to locate all moral virtues in the will, allowing it to control emotions and the sense appetite in the right way. The fundamental impetus for these differences is the presence of different theories of the will, respectively more or less dependent on deliberation and reason.

SCHOLASTIC TREATMENTS OF WEAKNESS

The recovery of Aristotle's discussions in the middle of the thirteenth century immediately provoked a wide range of responses.[2] Very few thinkers claimed that Aristotle was wrong, though in fact many of them disagreed with him on fundamental issues. A good example of a strongly Aristotelian approach can be found in the very first medieval commentator on the relevant parts of the *Nicomachean Ethics*: Albert the Great. Albert persistently claimed that both the akratic person and the wicked or malicious person are in some sense ignorant. The wicked person acts from choice, however – that is, from a settled (bad) moral disposition – and for this reason is culpable of any ignorance about moral matters (*Ethica* III.1.10). The ignorance of the akratic person, on the other hand, is explained by emotion (in the Augustinian guise of concupiscence),

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[2] There are an increasing number of useful resources on the question of weakness of will in scholasticism. See, for example, the following two helpful collections: Henrik Lagerlund and Mikko Yrjönsuuri (eds.) *Emotions and Choice from Boethius to Descartes* (Dordrecht: Kluwer, 2002), and Tobias Hoffmann *et al.* (eds.) *Das Problem der Willensschwäche in der mittelalterlichen Philosophie* (Leuven: Peeters, 2006). Risto Saarinen, *Weakness of the Will in Medieval Thought from Augustine to Buridan* (Leiden: Brill, 1994) is an excellent introduction to the whole topic, as, in a more restricted way, is chapter 4 of Bonnie Kent, *Virtues of the Will: The Transformation of Ethics in the Late Thirteenth Century* (Washington, DC: Catholic University of America Press, 1995). See, too, Bonnie Kent, "Evil in Later Medieval Philosophy," *Journal of the History of Philosophy* 45 (2007) 177–205, and "Aquinas and Weakness of Will," *Philosophy and Phenomenological Research* 75 (2007) 70–91. For a systematic treatment of the history of emotion in antiquity and the Middle Ages, see Simo Knuutila, *Emotions in Ancient and Medieval Philosophy* (Oxford: Clarendon Press, 2004). Aspects of the issues are treated in Bernard Besnier *et al.* (eds.) *Les passions antiques et médiévales* (Paris: Presses universitaires de France, 2003). I found all of these to be invaluable in preparing the first two sections of this chapter; all of them contain useful bibliographies of further relevant material.

and acts against his settled moral judgments and choices in such a way that the choice, although not the ignorance, is culpable (*Ethica* III.1.14; *Super Ethica* VII.3 n. 623). These emotions belong to the sensory part of the soul (*De bono* III.5.1 and III.5.3). Continence allows the agent to avoid the pull of concupiscence without the emotions themselves being well ordered by the virtue of temperance (*Super Ethica* VII.1 n. 600).[3]

Albert's student, Thomas Aquinas, was similarly Aristotelian in his general trajectory, though his theory includes more identifiably non-Aristotelian components – in particular, the notion that akratic actions are somehow chosen. For Aquinas, contingency in human activity is the result of rational *deliberation*, not of any self-determination on the part of the will. The will is (automatically) responsive to goods determined by reason, and is in effect the executor of reason's determinations (for instance, *Summa theol.* 1a 82.4c and ad 3). In line with this, Aquinas understands weakness to be the consequence of disorder in the emotions of the sense appetite – Augustine's concupiscence (*Summa theol.* 1a2ae 77.2c).[4] The role of moral virtues is thus to reintegrate the emotions, and Aquinas is explicit that some of the acquired moral virtues belong to the sensory part of the soul and not to the rational will (ibid., 56.4). This means that the sensory part of the soul is able to cooperate fully in rational, moral, human activity (ibid., 59.5c): the rule of reason over the sense appetites is, as Aquinas puts it, following Aristotle, not despotic but *political* (ibid., 58.2).

In line with Aristotle's account, Aquinas sees the emotions as impacting on reason directly (rather than through the medium of some kind of prior impact on the will), the result of which is a failure to apply the good general rule to the particular circumstances (ibid., 77.1c). Aquinas worries, though, about the Aristotelian claim that *akratic* actions are not chosen – for if they are not chosen, they are not voluntary. Aquinas claims instead, sharing something of Augustine's line here, that the incontinent agent acts *eligens, non electione* ("electing, but not from election") (ibid., 78.4 ad 3). But while this solves one problem, it immediately raises a further problem. Only what is believed to be good can attract the will, so the incontinent person must judge that the proposed action is good – that it should be done. And this is a different and stronger judgment than one to the effect that the action is not such that it should not be done, since this latter judgment is consistent with the action being morally neutral. This Augustinian addition to Aristotle's account moves Aquinas's interpretation

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[3] For this account, see Saarinen, *Weakness of the Will*, pp. 94–118.

[4] Aquinas holds that incontinence is thus a consequence of original sin: whatever may have been the origin of Adam's sin, it was not a case of *akrasia*. Adam sinned in full knowledge of what he should and should not do, and without bad emotions making a difference to his decision, since disordered emotions are a consequence of original sin, not its cause (*Summa theol.* 2a2ae 163.1c, 1a2ae 82.3c).

of Aristotle in a decidedly Socratic direction. Aquinas attempts to mitigate the counterintuitive aspect of this position by claiming that the akratic action is nevertheless not "from election": election (internal to the will) is not the *cause* of the action, because passion (external to the will) is the cause (*De malo* 3.12 ad 11); presumably, the election is not in accordance with the incontinent person's (good) settled moral principles.

One way of overcoming the evident problems with such an account is to give a more independent role to the will, along the lines inchoately suggested in Bernard of Clairvaux. On the face of it, such a role is itself problematic: if reasons do not determine how we act, then how can our acts avoid being (at best) irrational or (at worst) random? Many medieval thinkers – notably, many Franciscans – took exactly this line, however, claiming that the will is radically free in a way that avoids intellectual determinism but without making the will merely a randomly acting power. This in turn suggests answering both of the questions from the end of the previous section in terms of the will rather than the emotions or sense appetite: both weakness and virtues would thus be fundamentally located in the will. In contrast to the Aristotelian account of Aquinas, then, these thinkers proposed accounts on which no acquired moral virtue is physiological in character, inhering in the sensory appetite. Rather, such moral virtues are all purely immaterial properties of a purely immaterial substance – namely, the human soul. Indeed, it became commonplace among such voluntaristic thinkers to assign certain emotions to the will too. This is not to say that such thinkers necessarily denied that the emotions could be disordered, or that they could be made to be such that the intrinsic disorder is overcome. On the whole, however, any such intrinsic ordering was held to be the result not of naturally acquired virtues, but of other, generally supernaturally infused virtues (see Chapter 36).

The general view of such thinkers is that the will can simply will against the judgment of reason both in particular cases and in general principles, willing the lesser of two (or more) goods over greater ones.[5] This account can explain both *akrasia* and intemperate or malicious action. First, insofar as emotion has an impact on the intellect, it is not *direct*: emotion does not cloud the intellect other than with the consent of the will;[6] in such cases, presumably, reluctant action, rather than ignorance, distinguishes cases of *akrasia* from simple malice. A similar account is found in John Duns Scotus: incontinence as such is a disposition in the will that produces foolishness in the intellect (*Ordinatio* III.36

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[5] See, for instance, Gonsalvo of Spain, *Quaest. disp.* 8; Walter of Bruges, *Quaest. disp.* 6 ad 14; and John Duns Scotus, *Ordinatio* II.43.2 nn. 5–6.

[6] See, for instance, Peter of John Olivi, *Summa* II.86 (ed. Jansen, III: 191).

q. un. nn. 72–5).[7] Second, Scotus explicitly holds that there are wrong actions that are the result of the influence of passion on the will, without involving any ignorance (*Ordinatio* II.43.2 nn. 5–6); but the will nevertheless is in any case more inclined to follow intellect than some unmediated passion (*Reportatio* II.39.2 n. 5). Malice, analogously, is the willing of some lesser good under the influence neither of ignorance nor of passion (*Ordinatio* II.43.2 nn. 5–6).[8]

Thinkers who appeal to ignorance do so in this context only because it is one way of avoiding the problem that it is not possible to will evil as such – a position that was generally held until the introduction of William of Ockham's more radical incompatibilist account of the will, according to which the will can choose as it wants, with no teleological inclinations or constraints (*Ordinatio* I.1.2 [*Opera theol.* I: 399]). Henry of Ghent, for example, while holding strongly to the will's independence from reason, nevertheless holds that ignorance is required in the case of akratic action. Even in such cases, however, he believes both that ignorance requires the prior consent of the will (such that emotion cannot cloud reason without the will's permission), and that this consent of the will is not moved by the intellect (see, for example, *Quod.* 1.17 [*Opera* V: 128–9]). This is in decided contrast to the more Aristotelian view of Aquinas, for example, according to whom emotion affects the reason directly, and according to whom every voluntary consent is moved by the intellect.

There are other ways, too, of allowing for a voluntaristic account of *akrasia* without contravening the Aristotelian principle that we cannot will evil as such. Scotus borrows Anselm's two inclinations here: the will is inclined to two different goods; even in the case that choosing one of them is sinful, the object chosen is not chosen *as evil* (*Ordinatio* II.6.2 nn. 40–51). Anselm's two inclinations also allow Scotus to deal with the question of the motivation for sinful action: the beneficial motivates as much as the just does, to the extent that the will has a natural inclination to it (*Ordinatio* III.26 q. un., nn. 110–11).

Positing emotions in the will – involuntary or automatic reactions, positive or negative, to external stimuli – provides yet another kind of explanation for the will's choice. Scotus, for example, holds that there are concupiscible and irascible emotions in the will; temperance moderates the former, and fortitude the latter (*Ordinatio* III.34 q. un., nn. 38–51). These involuntary affective reactions incline the will to its natural goal, the beneficial; the affection or inclination for the just "moderates" these reactions, such that they are "rectified" (*Ordinatio* III.33 q. un., nn. 34–6, 61). Nevertheless, it remains unclear just how these *emotions* in the will relate to the two *affections* that Scotus adopts from Anselm. On the

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[7] On all this, see Kent, *Virtues of the Will*, pp. 174–98.
[8] On this account of malice, see also Aquinas, *Summa theol.* 1a2ae 78.1c.

one hand, both seem to perform the same kind of explanatory function; on the other hand, emotions are clearly psychological kinds of explanation of choice, whereas inclinations seem to provide some sort of metaphysical explanation.

In line with all of this, there was an increasing tendency to locate *all* moral virtues in the will, for the general reason that virtues are supposed to have a causal role in good choice, and should thus inhere in the faculty responsible for choice.[9] The contrast, of course, is with thinkers more influenced by the Aristotelian insight that choice is fundamentally a matter of reason, such that the will is naturally disposed to follow reason in a way that sense appetites do not.[10] This teaching proved, for reasons seen, outrageous to the more voluntaristic thinkers just examined.

GRACE

The doctrine of grace plays a number of different roles in Christian theology.[11] It is by means of grace that human beings are forgiven both original and individual sin. Grace is often taken to be a principle of merit, allowing its possessor to merit further grace, or everlasting life. Of key philosophical significance in this chapter, however, is the role that grace plays in action theory and philosophy of mind. During the Middle Ages, a doctrine of grace developed that either identifies grace as a kind of virtue, or at least understands grace in a way highly analogous to virtue. Viewed in this way, grace is a kind of additional remedy for the various kinds of weakness introduced by original sin. Basically, grace performs the role assigned by Aristotle to continence, allowing the will to control rebellious sense appetites, and in this way avoid *akrasia*. It does not, however, of itself bring anything analogous to Aristotle's temperance – it does not remove the rebellious character of the sense appetites altogether. *Akrasia* thus remains a real possibility for the person who possesses grace.

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[9] See, for example, Bonaventure *Sent*. III.33 q. un, a. 3; Henry of Ghent, *Quod*. IV.22 (ed. 1518, I: 139v–rS); Olivi, *Quaest. de virt*. 4 (ed. Emmen and Stadter, p. 224); Scotus, *Ord*. III.33 q. un., nn. 44–5.

[10] See, for instance, Godfrey of Fontaines, *Quod*. XIV.3 (*Phil. Belges* V: 342).

[11] The philosophical aspects of the topic of grace are not as well served in the literature as the question of weakness is. The best general history is Alister McGrath, *Iustitia Dei: A History of the Christian Doctrine of Justification*, 3rd edn (Cambridge: Cambridge University Press, 2005). Chapter 1 of Joseph Warwykow, *God's Grace and Human Action: "Merit" in the Theology of Thomas Aquinas* (Notre Dame, IN: University of Notre Dame Press, 1995), provides a useful conspectus of much of the literature on Aquinas. For the question of the effects of grace, and its relation to original sin, see William van Roo, *Grace and Original Justice According to St Thomas* (Rome: Gregorian University, 1955). Perhaps unsurprisingly, this material focuses more on theological questions than on the precise relationship between justifying grace and the moral virtues of continence and temperance. For an account of the moral virtues relevant to this whole set of issues, see Kent, *Virtues of the Will*.

For Augustine, grace, although not obliterating the human inclination to seek the satisfaction of (bad) emotional longings – concupiscence[12] – was what allows humans freely to will the good (*De spiritu et littera* 30.52). Augustine often identified grace as the *operation* of the Holy Spirit in a human person, making him or her just (*Epist.* 98.2), though he sometimes talked as well of grace as an *effect* of the operation of the Holy Spirit. But Augustine provided little by way of technical clarification here: how precisely grace achieves its effect is left obscure.

Theologians of the late eleventh and early twelfth centuries made more progress on the theory of the virtues than they did on grace as such. Grace was largely seen in terms of God's bringing about good effects – such as the theological virtues – in the soul. Anselm, for example, repeats Augustine's account of grace as allowing humans to will the good, though Anselm adds the clarification that the fallen will always retains the power so to will, but that it is incapable of actualizing this power because of its lack of rectitude (*De libertate arbitrii* 3). Virtues themselves, in contrast, were viewed as habits, either as fixed dispositions, or (in more Aristotelian fashion) as susceptible of growth and confirmation by exercise.[13]

A considerably greater advance was made on these topics in the thirteenth century, when the influx of a cluster of relevant Aristotelian concepts allowed the development of a detailed account of the 'mechanics' of grace. In particular, theologians came to see a link between the nature of grace and the nature of virtue, categorizing grace, like the virtues, as habits and thus as some kind of *quality* of the soul. As early as the second half of the twelfth century, Alan of Lille sees baptismal grace as a kind of habit or disposition, analogous to a virtue (*Regulae caelestis iuris* 86). According to the Aristotelian physics introduced into the West in the thirteenth century, qualities are forms, all virtues are habits (*Nic. Ethics* II.5, 1106a10–13; *Cat.* 6, 8b29), and habits are a kind of quality (*Cat.* 6, 8b26–7). The purpose of such habits is to help human beings to act well (*Metaphys.* V.20, 1022b10–12). If we envisage grace along the lines of an Aristotelian virtue, we will think of it as a kind of form or formal cause: something inherent in the individual that explains her being such-and-such – in this case, having a certain resemblance to the divine nature that is found only in those who are saved. This link was first made explicitly by Philip the Chancellor in the early thirteenth century, who identified grace as a habit inhering in the soul's essence and the theological virtues as habits inhering in the soul's powers (*De bono gracie* 1.2 [*Summa de bono*, ed. Wicki, I: 360]).

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[12] See *Enchiridion* 1.44; *Contra duas epistolas Pelagianorum* 1.13.26–7.
[13] See the discussion in Marcia Colish, *Peter Lombard* (Leiden: Brill, 1994) II: 476–7.

According to Aristotle, virtues are habits caused by our (good) actions (*Nic. Ethics* II.1, 1103a31–b2). Aquinas agrees with Aristotle that there are many such virtues: he calls them "acquired" virtues – that is, virtues that it is in our own power to gain (*Summa theol.* 1a2ae 51.2c, 55.1c, 63.2c). He argues that such acquired virtues are qualities (ibid., 49.1c) that must have as their subject the powers of the soul (ibid., 50.2c, 56.1c).[14] Aquinas also adds a new type of habit to those considered by Aristotle, arguing that some habits are given to us directly by God (rather than being caused by our own actions [ibid., 51.4c]). Aquinas calls these "infused" habits (as opposed to acquired habits) (see Chapter 36). The reason some habits have to be infused is that our supernatural goal – salvation and the beatific vision – is beyond our natural powers. If we are to be disposed to such a goal, we thus need supernatural habits or dispositions (ibid., 62.1c, 63.1c). These infused habits are the theological virtues of faith, hope, and charity, inhering in the various powers of the soul. (Faith inheres in the intellect [2a2ae 4.2c], and hope and charity in the will [2a2ae 18.1c, 24.1c].)

In addition to these infused habits, there is also an infused habit of grace. According to Aquinas, this habit is distinct from the theological virtues and is presupposed by them. Aquinas grounds this claim on Aristotle's principle that a virtue as such is a "disposition of a perfect thing" (*Phys.* VII.3, 246a13). So, in order to receive a virtue, a thing's nature must *already* be perfected. Thus, before it can receive a supernatural virtue, it must have some supernatural perfection. This is grace (*Summa theol.* 1a2ae 110.3c). From this it follows, Aquinas argues, that the subject of grace must be the *essence* of the soul, not the powers of the soul (ibid., 110.3c), and thus that grace must be both distinct from and prior to the theological virtues.

Aquinas's account of habitual grace is explicitly directed against that of Peter Lombard, who – referring to the dictum of 1 John 4.8 and 4.16 that "God is love" – identified the love by which we love God as the Holy Spirit (*Sent.* I.17.1 nn. 2–3). In Lombard's view, the Holy Spirit is something in us, identified as the love that we have for God and our neighbor. Aquinas rejects this view. Our act of love, he argues, must be something we in some sense do, and as an action of ours it must in some sense inhere in us. Equally, the principle or cause of this love must likewise be internal to us, in the sense of being something created and inhering in the soul.[15] Aquinas understands Lombard to be maintaining that

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[14] Note that Aquinas, unlike Aristotle, distinguishes the essence of the soul from its powers: see *Summa theol.* 1a 77.1c.

[15] Aquinas is thus committed to the view that habitual grace is an inherent quality. Although he sometimes talks of such grace as created (see, e.g., *Summa theol.* 3a 7.11sc), strictly speaking he denies that any inherent accidents are created. Only substances are created. Accidents are said to be "concreated," in as much as they are that *through which* a substance exists in a certain way (whiteness

the Holy Spirit moves a person to act in certain ways – perhaps meritoriously – without the person's having any intrinsic capacity that might enable him or her to cooperate with the relevant divine action. The act, in short, is not an act of the human person's at all. Aquinas does not disagree that God moves the soul in all cases of meritorious activity. He merely disagrees with what he takes to be Lombard's claim that the soul contributes nothing itself (*Summa theol.* 2a2ae 23.2c).

Aquinas's account of God's causal activity in the soul also marks a considerable theoretical improvement on Lombard's, in the sense that Aquinas makes use of an analysis of motion from Aristotle's *Physics* in order to describe the relevant divine activity. Aquinas argues that the human soul is moved by God in all of its (internal) acts of knowledge and love, and thus that these internal acts count as things brought about in the soul by God: for "motion is an act of the mover in the thing moved" (1a2ae 110.2c).[16] Aquinas talks about this divine operation as *actual* grace, as opposed to *habitual* grace (ibid.). But such internal acts cannot be acts of the person's without the person's having an internal capacity or habit to ground participation in such acts.

Distinguishing grace from the theological virtue of charity (as Aquinas does) was unusual in the later medieval debates: thinkers were usually content to identify the two, perhaps on the simple grounds of parsimony. (Aquinas's additional layer of explanation, distinguishing grace from the theological virtues, does no obvious work, and seems in any case to be based on a curious reading of Aristotle.) In effect, the twelfth-century account of grace becomes Aquinas's *actual* grace, and the role played by the theological virtues in the twelfth century is played, in a more theoretically nuanced way, by both the theological virtues and habitual grace in Aquinas's account. Fourteenth-century theologians simply dispensed with habitual grace as something over and above the habitual virtue of charity. The notion that charity should be understood as a habit perfecting the rational part of the soul – in this case, the will – seems to have been accepted universally by later thinkers. What was not so readily accepted is the idea that there is any kind of *intrinsic* link between the habit of grace/charity and the state of being saved. Scotus develops a complex argument against the necessity of such habits for salvation – God could save someone without the habit of charity (*Ordinatio* I.17.1–2 n. 160) – and Ockham claims not only that such a habit is not necessary for salvation, but also that it is not sufficient (*Ordinatio*

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is that through which a substance is white): see *Summa theol.* 1a 45.4c. Nevertheless, Aquinas's intention is plain: there is no sense in which he would want to assert that habitual grace belongs to the uncreated order. It is "concreated" as and when its subject receives it.

[16] Aquinas has in mind Aristotle, *Phys*. III.3, 202a13–21; see too, e.g., Albert, *Sent*. 4.17.A.15 (ed. Borgnet, 29: 684a).

I.17.1 [*Opera theol.* III: 470]): positions that some of his contemporaries believed to be heretical.[17] But this takes us into more specifically theological territory, and away from the philosophical topics under discussion here.

Clearly, in the complex context of an understanding of weakness that owes much to both Augustinian insights about the will and Aristotelian insights about the passions, theologians of the thirteenth century had many more options than their predecessors in considering the effects of grace. Aquinas, for example, holds that grace allows the sense appetites and passions to be subject to reason (*Summa theol.* 1a2ae 113.1c). In effect, this makes grace something like continence – it does not prevent the rebelliousness of the sense appetites, but it does allow reason to control it, and thus performs a role analogous to that assigned by Aristotle to continence, not temperance. (Unsurprisingly, Aquinas holds that temperance is a virtue [2a2ae 141.1–2], and that it is a higher virtue than continence [ibid., 155.4c]; he holds, too, that a supernatural gift corresponding to temperance is bestowed on a person as a result of the presence of grace, though not to be identified with grace itself [1a2ae 68.4 ad 2].) Aquinas holds that grace entails all other virtues (since it entails the theological virtues, and these cannot be had without all the acquired virtues too [ibid., 65.3c]). So a concomitant of grace, though not its immediate or proper effect, is that the sense appetites have their own virtues and supernatural gifts, and thus that they begin to be ordered in a less rebellious way.

Scotus also holds that grace gives a person the power to control rebellious sense appetites, though in line with his greater emphasis on the will he holds specifically that the will is the part of the soul that controls the sense appetites (rather than thinking of the sense appetites themselves as intrinsically disposed in a better way as the result of grace) (*Ordinatio* II.29 q. un. n. 9). So Scotus can affirm without qualification the Augustinian language about the strengthening of the will by grace. He does not believe, however, that the presence of the theological virtues entails all other virtues (*Ordinatio* III.36 q. un. n. 113), and so is not committed to the view that the sense appetites begin necessarily to be intrinsically more controllable once grace is present.

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[17] On this, see Marilyn McCord Adams, *William Ockham* (Notre Dame, IN: University of Notre Dame Press, 1987) II: 1279–95.

VI

ETHICS

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HAPPINESS

LENN E. GOODMAN

THE ARISTOTELIAN BACKGROUND

At the beginning of the *Nicomachean Ethics*, Aristotle claims that all arts and inquiries, acts and choices, aim at some good. Indeed, they presume an ultimate good. For if they sought no good at all they would not be chosen, and without an ultimate intrinsic good their rationality would collapse. Aristotle's title for that ultimate aim, a title meant to be uncontroversial, is *eudaimonia*, loosely translatable as happiness. Its nature is not a given: philosophy has its work cut out for it in clarifying just what this ultimate human goal must be. Some seek happiness in pleasure, wealth, or honor; others scramble for whatever sensation appeals at the moment or blindly pursue domination. Aristotle, however, maintains that (1) *eudaimonia* is something objective, not mere gratification, euphoria, or complacency; (2) it is not merely a passive state of well-being but an active life of doing well (*euprattein*); and (3) the virtues are dispositions that promote the good life that we seek. Aristotelian moral virtues such as courage, generosity, and self-control are dispositions, or habits of acting in accordance with a mean discerned by reason. *Phronesis*, strength in deliberation, is an intellectual virtue, but *sophia*, the queen of the intellectual virtues, finds our most godlike activity in contemplation. As Aristotle sees it, the virtues point the way to happiness, much as Plato sought the nature of reality through his conception of knowledge.

For medieval philosophers, as for Aristotle, contemplation is typically the consummate human goal, finding its highest object in the divine. Philosophers disagree, however, about the rapport of happiness with an active life. Horrified by the world's state, some seek withdrawal; others strive for engagement, integrating contemplation and inquiry with moral, social, and political responsibility.[1] Some reserve ultimate felicity to the hereafter, whereas others see windows opening on it in the here and now.

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[1] For medieval versions of the ideal of the role of wisdom in politics, see for instance, Abraham Melamed, *The Philosopher King in Medieval and Renaissance Jewish Philosophical Thought* (Albany: State University of New York Press, 2003).

JUDAISM

From the Torah's standpoint, Aristotle's foils – pleasure, wealth, and honor – may seem a bit too hastily cut off from the good life's fullness; and the person who enjoys Aristotelian *eudaimonia* may look rather isolated, despite Aristotle's ideal of the *polis* and his trenchant charge that life outside an integrated community is either subhuman or superhuman. Biblical writers situate fulfillment in a community spanning the generations, responsive to a sacred trust with ancestors and heartened by God's promises of triumph over history's vicissitudes.[2] To medieval Jewish thinkers as well, the founders of Israel's law and eponyms of its ancestry remain a living presence. The Rabbinic tradition that grounds medieval Jewish theology and law makes them contemporaries, paragons of the piety proudly held aloft as Israel's moral and spiritual heritage. Nor are future generations ever far from view. Glossing God's reproach to Cain, "The voice of the bloods of thy brother cry to me from the earth" (Genesis 3:10), the Rabbis ask why the Hebrew has 'bloods' and not 'blood.' Their answer: Cain destroyed not just Abel but all his hope of posterity. Biblically, they infer, to take one life is to destroy a world (Mishnah Sanhedrin 4.5).[3] So Job, not an Israelite at all but an everyman of theodicy, finds solace in his progeny. His new offspring do not replace the lost children, but seeing his grandchildren's children assures Job of his futurity.

Saadiah Gaon, the first systematic Jewish philosopher, conceives of happiness in pluralistic terms – that is, as a blend of diverse goods. Surveying the putative goods mentioned in the Torah and the common notions they reflect, he identi-fied thirteen objects of interest that might be sought as goods: asceticism, food and drink, sexual gratification, romantic love, wealth, progeny, urban and agri-cultural development, longevity, political power, vengeance, knowledge, piety, and rest. Each of these names stands for a mode of activity that could frame a lifestyle. But such focusing, Saadiah argues, would be a badly mistaken strategy:

I find some people suppose, indeed are certain, that it is man's duty to order his entire life by a single trait of character, preferring the love of one thing above all other objects of desire, and hating one thing above all else. Examining this view, I find it utterly mistaken, in several ways. First, if the love of a single thing and preference of it to all else were best for us, the Creator would not have implanted in human nature the love of any other ... [Second,] don't you see that even the most elementary actions cannot

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[2] Two learned and thoughtful studies bear special mention here: Jonathan D. Levenson, *Resurrection and the Restoration of Israel: The Ultimate Victory of the God of Life* (New Haven, CT: Yale University Press, 2006), and Hava Tirosh-Samuelson, *Happiness in Premodern Judaism: Virtue, Knowledge, and Well-Being* (Cincinnati, OH: Hebrew Union College Press, 2003).

[3] The standard English translation of the Mishnah is Herbert Danby (tr.) *The Mishnah* (Oxford: Clarendon Press, 1933).

succeed with just one element? How then can the whole complex? If a builder built a house of stones, or teak, or thatch, or nails alone, it would not do at all – as it would if he built it of all these in combination. Likewise with cooking and food, drink and dress, service, and all our other needs. Doesn't it open one's eyes to see that none of these specific activities works with just one means, although all of them serve our comfort? How much less can the needs of our soul and character be met by a single object![4]

Saadiah argues, in practical terms that make full use of his powers as an observer of the human condition, that pursuing any one of the goods he has listed, to the exclusion of the rest, is inherently self-defeating. Each of these values may be a prima facie good. But other values plainly relevant to human fulfillment will be neglected in too single-minded a pursuit of just one such good alone. Moreover, even *that* aim will inevitably be frustrated: the good sought will prove unsatisfying, and unsatisfactory in isolation from the rest. The single-minded ascetic, for instance, will turn misanthropic and defeat the quest for piety (or even health) that might have motivated his choice. Even knowledge does not suffice as life's goal; if pursued exploitatively (as Aristotle seems to recommend), it leads to isolation – wisdom unshared and untransmitted. No single good, then, can constitute the good life. One needs a mix of goods – in proportions, Saadiah suggests, that the Torah can teach us.

Taking up the question where Saadiah left it, Moses Maimonides seeks the proper way of integrating our human purposes. Before turning to his answer, however, we need to consider Saadiah's thoughts as to happiness beyond this life, for he makes it very clear that even given the best mix of worldly goods, time and change will erode and ultimately frustrate every human appetite and desire.

Convinced by history and experience that worldly ills outweigh goods, Saadiah faces an acute version of the problem of evil, to which he responds by falling back on the promise of the hereafter. History will climax, in the messianic age, with the resurrection of the dead. Israel will be restored; her martyrs will witness vindication of her mission in the world. Beyond that, the accounts of justice will be rectified, as the Rabbis promised – the righteous will be rewarded and the wicked will be punished (*Beliefs and Convictions* VII, VIII, IX). Saadiah rejects the claim of his Muslim contemporary, al-Ashʿarī, that God may treat his creatures as he likes. Only fear, venality, or ignorance would lead a judge to an unjust judgment, but God's rule is founded on his justice, and that justice is vouched for by his grace, for the act of creation was a pure expression

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[4] Saadiah Gaon, *Kitāb al-Amānāt wa-al-iʿtiqādāt* (*The Book of Critically Chosen Beliefs and Convictions*, or *Sefer Emunot ve-Deot*) X.1 (ed. Kafih, pp. 288–9). Saadiah's vision of the good life is discussed in Lenn E. Goodman, *God of Abraham* (New York: Oxford University Press, 1996) pp. 141–52.

of grace, responding to no prior desert.[5] What then can one say of the suffering of innocents, of which Job's sufferings are emblematic? Clearly they must be requited in the hereafter: adherence to God's law lightens and brightens the souls of the righteous but darkens and scorches the souls of the wicked, blocking the light that the righteous enjoy, just as the clarity of righteous souls guards them from that heat (Psalms 97:11, glossed at *Beliefs and Convictions* V.1, VI.4, IX.5, 8). God's justice levies the consequences of human acts on the righteous and the wicked alike. Despite the losses every living being must suffer, then, for Saadiah life is neither tragic nor absurd. A good life is possible, as the Torah promises, and the course the Torah outlines guides one reliably toward life's pleasures and rewards (see also Chapter 56).

Maimonides rejects Saadiah's thesis that evils outweigh goods in this life; he maintains that good is preponderant and that many of our sufferings stem from our own acts or omissions. Needing no recompense for worldly ills, Maimonides rejects Saadiah's recourse to the rabbinic doctrine of the sufferings of love, which he calls unbiblical and untrue. For God to torment his creatures undeservedly, even in order to enhance their reward, would be utterly unjust. Saadiah, Maimonides argues, weighed happiness in the wrong coin, misled by an equation of good with pleasure and evils with pains. Pains are evils, to be sure; and wholesome, measured pleasures are goods. But hedonism affords no adequate gauge of value. The peak of happiness lies in knowledge of God and in emulation of his ways. Job's losses were indeed natural outcomes of human embodiment, as he himself might have seen had he been wise as well as upright. Job's requital came in his epiphany, not his progeny – what warrants every vulnerability is the chance of knowing God (*Guide of the Perplexed* III.12).

Knowledge of God's infinite perfection, of course, must be approached asymptotically. But it is by perfecting ourselves that we emulate God. The purpose of the Torah is to guide us to a way of life that fosters that emulation – in practical terms, as the Talmudic Rabbis taught, by promoting an ethos of love, charity, and justice; in spiritual/intellectual terms, through rituals and symbols that open up the mind to ever higher apprehensions of God's perfection. It is here that Maimonides finds the key to integrating the diverse goods that Saadiah had calendared:

A person should deploy all the powers of his soul under the guidance of reason . . . and focus his gaze on a single goal: apprehension of God, insofar as this is possible for a human being. That means knowing Him and directing every act, every movement and cessation, and every utterance toward this goal, leaving no act whatever vain or pointless, that is, undirected toward this end. In eating or drinking, for instance, in sexual relations,

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[5]   Commentary on Job 34 (tr. Goodman, pp. 359–60), and Introduction to Job (tr. Goodman, p. 127).

sleeping or waking, moving or stopping, one should aim solely for bodily health. And the purpose of bodily health is to enable the soul to find its tools in sound working order, for use in the sciences and in garnering the moral and intellectual virtues, so as to reach this ultimate goal.

(*Eight Chapters* 5)

Maimonides here fuses the biblical mandate to pursue God's holiness (Leviticus 19:2) with Plato's exhortation to become as like to God as humanly possible (*Timaeus* 176b). Through knowledge of God we realize our intellectual affinity to him, announced when Genesis declares that we humans were created in God's image. But it is in acts of kindness that we emulate God's grace in the governance of nature. In both the practical and the intellectual spheres reason leads the way: for it is reason that guides us to the mean that marks the path of moral virtue, and it is reason again that grasps the inner meaning of the Torah's symbols, raising us toward an ever less inadequate grasp of God's perfection.

Maimonides subordinates all human acts to the service of our highest goal, but without robbing them of their intrinsic worth. Even in pursuit of the ultimate, no human good is left behind:

[The Torah's] intent is only that a person should live naturally and follow the middle path, eating and drinking what is his to eat and drink, in moderation, enjoying sexual congress with whom it is permitted, again in moderation, living in society, in justice and equity, not in caves or mountains, not wearing hair shirts, or abusing and afflicting his body.

(*Eight Chapters* 4)[6]

Saintly persons, reacting against the decadence of their times, may seek surcease from society or lean somewhat toward the ascetic. But those who seek to emulate such abstemious figures through extreme renunciation are like fools who suppose that if small doses of medicine aid the ailing, larger doses will be all the better for the healthy.

God, the highest object of our awareness, is both manifest and hidden: plain as daylight in the broadest terms, but far beyond the reach of the most penetrating human mind in his ultimacy. Awareness of God's perfection is the ultimate object of the human quest. But that awareness does not compete with other human goals. Intellectual consummation spills over into holy acts of guidance and generosity. So Abraham will have followers, not only in his lifetime but in every generation. And Moses will experience no mere ecstasy but an all-encompassing vision of nature; he will transmit an articulate system of law and morals to guide his people in every generation. The traffic on Jacob's ladder

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[6] Citing Nazir 19a, 22a; Taʿanit 11a; Baba Kamma 91b; Nedarim 10a.

moves downward as well as up, Maimonides writes: "How wisely is it written, 'ascending and descending,' ascent before descent. For after rising and reaching a given rung on the ladder comes the descent with what has been gained, to govern and teach the people on earth."[7] Reason, the source of every sound inspiration, will guide practice, supported by it and supportive of it. And the glittering sword does not just bar the way to Eden. Spinning (*mithapekhet*) swiftly on its axis, it casts rays of enlightenment that we can apprehend, in the measure of our capacity, lighting the path to immortality.

CHRISTIANITY

Christianity is born as Hellenism dies. When Jesus is hailed as the Answer and the Way (John 14:6), the Gospel audience already knows the question. The Hebrew for salvation (still echoed in the name Jesus) no longer means victory or vindication, as it once did, or even endurance, as a Stoic might expect, making Herakles his hero, and not Achilles or Odysseus.[8] Salvation now means escape from the world's toils – above all, from sin. Paul had blamed the Law for trapping men in sin (Romans 3:20, 5:13, 20, 7:7–13, 8:2). But the search for meaning in Christ's death, by an ironic twist, makes sin irredeemable without his sacrifice. And, again ironically, the very effort to make his way universal turns his teachings into a particularism: No salvation without him.

Augustine fought clear of his Manichean phase. His mother's love and the philosophy of Plotinus, accessible in the Latin of Marius Victorinus,[9] taught him to accept his body and ascribe his youthful, willful passions not to some inner evil but to a misguided spiritual hunger that mistook folly for joy, license for liberty, false pride for shame, and wild alliances for friend-ship. Reflecting on his youthful theft of pears from a neighbor's orchard, he wrote:

What then did wretched I so love in thee, thou theft of mine, in that sixteenth year of my age? . . . and wherein did I corruptly and pervertedly imitate my Lord? Did I wish even by stealth to do contrary to Thy law, because by power I could not do so – so that being confined I might mimic a stunted liberty by doing with impunity things unpermitted me, a darkened likeness of Thine omnipotence?

(*Confessions* II.12–14 [tr. Pusey, pp. 27–9])

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[7] *Guide* I.15, glossing Genesis 28:13; and see *Guide* I.38 and 63, citing Genesis 12:5, and *Guide* II.35–8.

[8] See E. R. Dodds, *The Greeks and the Irrational* (Berkeley: University of California Press, 1964); *Pagan and Christian in an Age of Anxiety* (Cambridge: Cambridge University Press, 1965).

[9] See Peter Brown, *Augustine of Hippo* (London: Faber and Faber, 1967) p. 92.

As Augustine came to see, "Even in their sins souls seek a sort of likeness to God, in a proud, perverse, and, if you will, slavish freedom" (*De Trinitate* XI.5).

Yet, even as he sees a dark shadow of God's truth in vice itself, Augustine still finds a deep duality between the present world and God's kingdom – the best good life of worldling philosophers, Augustine argues, is misery alongside God's peace. Moral virtue is the best of this life's goods, since it does battle with the passions. But its hold is tenuous, the life it commends inchoate. Only life eternal offers consummation; only grace can steady faith enough to give it entrée to that life. The loss of friends and the all too human sense of anxiety are faith's allies in disguise, turning our gaze heavenward and allowing us, if not happiness itself, at least the chance to live in hope (*City of God* XIX.4–12).

Anselm, as a child in the Alpine town of Aosta, dreamed of climbing to God's manor in the mountains and warning the steward of the wayward women who reaped in God's fields. In maturity, Anselm would forge new ways of meditation, aiming to open up to others his contemplative access to the divine.[10] God's image, Anselm writes, lies within, but in a soul corroded by sin, leathered over by vice:

> I acknowledge, Lord, and give thanks that you have created your image in me, so that I may remember you, think of you, love you. But this image is so effaced and worn away by vice, so darkened by the smoke of sin, that it cannot do what it was made to do unless you renew it and reform it. I do not try, Lord, to attain your lofty heights, because my understanding is in no way equal to it. But I do desire to understand your truth a little, that truth that my heart believes and loves. For I do not seek to understand so that I may believe; but I believe so that I may understand. For I believe this also, that "unless I believe I shall not understand" [Isaiah 7:9].
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> (*Proslogion* I.1; tr. Charlesworth)

Anselm's vision is dark. Convinced that he was fallen, convicted of a sin that no mortal could purge, he sought refuge in Christ's sacrifice, all the while taking life itself, and the powers of thought that he so treasured, to be God's precious gifts. Yet the question remained, how could that be, if our mortality stands embattled by sin and hopes for escape from a sinful world?

Thomas Aquinas resolves this conflict in classic scholastic form, with a distinction: true, happiness is the vision of God's essence, and that cannot be enjoyed here in this world; at the same time, this life of ours does afford a natural wealth. God's bounty does grant happiness in some measure, even though our bodies are weak, our appetites strong, our minds ignorant. Here in the world

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[10] See Richard W. Southern, *Saint Anselm: Portrait in a Landscape* (Cambridge: Cambridge University Press, 1990) pp. 91–106.

the soul naturally and rightly rules the body, and Augustine erred in assuming that beatitude means shedding the body. But in the hereafter souls will receive a spiritual body, infused with incorruption by the joy of their new and clearer vision. Even the good of externals like friendship may be restored. So a man may be happy in this life and still pant after ultimate bliss, not ignorant of his goal, yet not knowing it as he will after death.

All actions, as Aristotle held, pursue some good. And, as Augustine learned when he probed his youthful wildness, even wrong choices pursue some simulacrum of the good. But the final good that warrants every sound pursuit is God:

The particular good is directed to the common good as its end, for the being of the part is for the sake of the being of the whole [cf. Aristotle, *Politics* I.4]. So it is that "the good of the nation is more godlike than the good of one man" [*Nic. Ethics* I.2]. Now the supreme good, namely God, is the common good, since the good of all things depends on Him, and the good whereby each thing is good is the particular good of that thing, and of those that depend thereon. Therefore all things are directed to one good, namely God, as their end.

(*Summa contra gentiles* III.17, tr. Pegis, II: 28)

What Thomas achieves here is to reconcile worldly with ultimate aims without sacrificing either to the other. Just as Aristotle and Maimonides had subordinated the aims of daily living to the ultimate goal of knowing God, so Aquinas sees in the hierarchy of means and ends a way of integrating the aims of human happiness and the good life in this world into a larger picture, where ultimate causes move proximate causes, and ultimate ends afford the warrant for proximate ends.

Surveying the same goods that Aristotle placed in service to *eudaimonia*, Thomas argues that the natural wealth of God's abundant care for creation, along with the more conventional wealth that allows us to procure natural goods, is quite properly sought – but as means to an end, never as a final end (*Summa theol.* 1a2ae 2.1c). Honor recognizes virtue, so it can accompany happiness, which the virtues promote. But honor, therefore, clearly cannot constitute happiness (ibid., 2.2c). Nor can any bodily good. Even a good of the soul cannot be our ultimate good, for we must distinguish the object of desire from its actual use and enjoyment. The soul, considered in itself, has only the potential, say, for the knowledge or virtue it seeks: its true goal is fulfillment of such quests. Happiness itself is "something outside the soul" (ibid., 2.7c). Three things must coincide for us to possess it: "vision, which is perfect knowledge of the intelligible end; comprehension, which implies presence of the end; and delight or enjoyment, which implies repose of the lover in the beloved"

(ibid., 4.3c). Thus will, too, is requisite, as part of what makes one capable of enjoyment (ibid., 4.4c).

Rectitude of will, Aquinas argues, is necessary for happiness, just as well-disposed matter is needed for the reception of form. God might have made a will with just the right tendency. But divine wisdom forbids such mere puppetry: no pure creature fittingly gains happiness without striving. As Aristotle saw (*Nic. Ethics* I.9), happiness is the reward of works of virtue (*Summa theol.* 1a2ae 5.6c). As for the body, although it does not bring us the highest happiness, it does allow us happiness of a lesser sort (ibid., 4.5c). What virtue calls for, then, is not the body's rejection but its perfection. For "beauty of body" and keenness in its care are parts of human perfection. Here Thomas reproves Augustine and all who overly incline toward the ascetic: happiness in this life plainly needs a well-disposed body.

ISLAM

Muslim thinkers too hanker after otherworldliness while still seeking an accommodation to the world and a taste of its fruits. Al-Kindī, writing in the ninth century, for a prince, on how to banish sorrows, will diagnose all anxieties and sorrows as the results of losses or the fear of loss. His prescription: detachment from transitory things, prizing intellectual realities in their place, for Ideas – pure Ideas like those that Plato spoke of – are safe from change and decay. Easily won, unlike the elusive goods of the senses, they are never really lost. For as objects of the understanding they become the very substance of the mind. Friendships fade; loved ones are lost. Worldly bonds only tie us to the world, but Ideas endure and bear seeds of immortality, for the soul infused with them not only holds them secure but becomes like them and so shares in their deathlessness. Seeking philosophical and thus conceptually robust consolations, Kindī quietly renounces bodily resurrection. The houris and wine boys promised in the Quran balk at the barrier that only pure Ideas can traverse.

In an extended allegory from his essay "On How to Banish Sorrow," Kindī treats our lives here below like a journey in a ship that has made a stop:

When the captain calls the passengers for embarkation, some return loaded down with all they have gathered and collected . . . They can barely squeeze into the ship, and that only uncomfortably and unhealthily. Some have wandered so far and strayed so deep into the woods that the voice of the ship's master does not even reach them. The vessel departs, leaving them behind, cut off from their homeland in wild, hostile, deadly surroundings, horrible and ruinous. Some are carried off by wild beasts. Others fall into a pit or crevasse or sink into quicksand. Some are crushed by snakes. Their desolate and decaying bodies, limbs scattered, mangled and hideous, are an object of pity to strangers

but a lesson to all who knew them, who see them exiled from the homeland they had set out for.

Those who board the ship with the heavy loads they have amassed of objects that deceived their minds and now rob them of their freedom, deprive them of rest, cramp their quarters, and weigh down their baggage, soon see their flowers fade, the stones lose their luster, deprived of the moisture that made them gleam and sparkle . . . Before they reach port they are sick with the putrid odors of all that they've brought on board. They've sapped their strength, exhausted by living in close and rough quarters and by their servile attendance on things that bring them only blight and ruin.

Some die before reaching port. Some arrive sickened and weak. Those who lagged behind to look and sniff but went no further may lack only comfort and space on the journey. Those who got back to the ship without becoming engrossed in any of the objects that accosted the senses, beyond noticing them as needful on first debarking, now in the most spacious and comfortable places, reach their homeland well rested.

Kindī makes no pretense to originality in writing out his prescription. Indeed all the exempla in his essay stem from Greek sources.[11] His byword, drawn from Aristotle, is that one should take truth where one can find it.[12]

Abū Bakr al-Rāzī too, despite his worldly, largely hedonic ethics, takes an Epicurean line, finding that we maximize pleasure by minimizing desire. Like Kindī, he finds his highest good through philosophy, saying that: "One who applies his mind to ideas, probes and thinks for himself is on his way to truth. For our souls are purged of the sludge of this world and freed for the next only by philosophical thinking. If an inquirer engages in philosophy and understands a bit, however little, his soul is cleansed and freed."[13] What then of a philosopher who adheres to a prophetically revealed religion? Rāzī answers: "How could he study philosophy while believing those old wives' tales, founded on contradictions, obdurate ignorance, and dogmatism?"[14] Every human being of normal capacity can think independently, for God's guidance is not confined to some elect elite. Prophetic claims to exclusive audience with God are demonically inspired at best, and their partisans wreak only bloodshed. The ingenuity of craftsmen in solving practical problems plainly shows that if they applied their minds to more speculative questions, they too, like Rāzī, would have gained the insights that would free them from the slough of ignorance. Their lives would

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[11] Readers may recognize the ship, for instance, from the *Enchiridion* of Epictetus (sec. 7).

[12] See *On First Philosophy*, tr. Ivry, p. 57.

[13] *Munāẓarāt*, tr. L. E. Goodman, in "Rāzī vs Rāzī: Philosophy in the Majlis," in H. Lazarus-Yafeh *et al.* (eds.) *The Majlis: Interreligious Encounters in Medieval Islam* (Wiesbaden: Harrassowitz, 1999) pp. 90–1.

[14] Ibid., p. 92.

be calmer and more reasonable, and their measure of intellectual independence would win them their portion of immortality.

Rāzī is dismissive of religion – not of God, whom he hopes his soul will rejoin when reasoning has freed it of its earthly trammels, but rather of the pretensions of prophets and their marketers and enforcers. His contemporary al-Fārābī is far more irenic, seeking and finding a place for the rituals, laws, and symbols of scriptural religions. Paradise and Hell, he argues, like creation and resurrection, are poetic tropes. Felicity, as for the other philosophers in the Platonic tradition, is still the mind's linkage with the divine. The virtuous society fosters that end. For its laws, beliefs, symbols, and institutions reflect the lawgiver's wisdom, much as Plato hoped they would once poets pursued truth for its own sake and philosophers found voice for their insights in wise legislation.

Fārābī agrees with Aristotle's teaching that ethical virtues and vices are habits, "established in the soul by sheer repetition" (*Fuṣūl al-madanī* 8). We humans are not born vicious or virtuous – any more than we are born weavers or clerks – although our natural inclinations may predispose us to some particular vice or virtue (ibid., 9). A person wholly disposed toward the virtues, who actually attains them through steady practice, was called divine by the ancients and deemed a city's rightful ruler – in fact, Fārābī writes, the rightful ruler of any city (ibid., 11). Just as a physician guides patients to the proper mean through bodily regimens, the statesman finds a mean in actions, fostering a moderate and balanced character among the populace (ibid., 19; cf. sec. 24). The rightful ruler fosters genuine happiness among his people, pursuing not wealth or honor or sheer domination over others but the virtues of proper statesmanship: self-governance and the promotion of virtuous actions that will solidify as habits, balanced virtues of character (ibid., 27–9). Laws and institutions are critical tools in this regard. So is oratory. Poetry is even more vital to the political art, however, for while rhetoric may yield action through persuasion, poetry – linking a poet's vision with the imagination of his audience – yields a more direct response (ibid., 51).

Imagination can represent not only sensory objects and impressions but also inclinations and emotions, and even concepts (Fārābī, *Perfect State*, IV.14.2, 14.5), including ideas of the highest: "the First Cause, and non-physical things, the heavens, and the noblest and most perfect of sensory objects, such as things of great visible beauty" (ibid., IV.14.6). Receptive to the ideas that emanate from the Active Intellect – the divine hypostasis that informs all things in nature – imagination can clothe them in sensory forms drawn from the images it stores and constructs, yielding veridical dreams and visions, prophetic promptings, and premonitions (ibid., IV.14.7–9). It is this kind of vision that makes possible the kind of philosopher king that Fārābī sees as the ruler of the ideally virtuous

state. Such a man "can be ruled by no other" – at least not rightfully. He will need to develop the virtues that make for excellence in the art of governance (IV 15.7). Intellectually, he needs a perfect mind, fully transparent to itself and informed by every pure idea showered on the mind by the Active Intellect. Ideally, too, his imagination will work at the highest range of receptivity (ibid., IV.15.8), so that it, too, will catch fire, and both mind and imagination will be *invested* by the Active Intellect and raised to a higher plane, intellectually and practically (see Chapter 23). Farabi describes the situation as follows:

In any man who perfects the passive intellect by grasping every rational idea and becoming in actuality both thought and thinker, so that what he thinks is the mind he thinks by, there arises a mind higher than the passive intellect, stronger and more perfect, divorced from matter. This is called the Acquired Intellect. It mediates, without further intermediary, between the passive and the Active Intellect . . . And when this natural disposition [our rational capacity] becomes matter for the passive intellect, making it a realized mind, and the passive becomes matter for the Acquired, and the Acquired, for the Active Intellect, and the whole unites as one, the Active Intellect is indwelling (*halla fī-hi*[15]) in that man.

If that affects both parts of his rational faculty, the practical and the speculative, and spreads to his imagination, that man is a man inspired: God grants him Revelation through the Active Intellect . . . So, by dint of the emanation his passive intellect receives, he becomes wise, a philosopher, a consummate thinker; and by dint of the flow to his imagination, a prophet who warns of future events and informs of present facts. This man holds the highest rank of humanity and the supreme degree of happiness. His soul is united, as it were, with the Active Intellect.

(ibid., V.15.8–11)

So divine an intellect, that of someone who is at once a philosopher and a visionary, understands every act conducive to human happiness. That is "the first requisite of a leader" (ibid., V.15.11). But "beyond that, he must have verbal power, to image ably in words all that he knows and guide people to felicity and to the actions conducive to it." These criteria set a standard that reaches beyond the familiar Islamic tests of leadership, grounded in a sound bodily constitution, fit for the work of war. Fārābī's rightful imam, ruled by no other man, is the rightful "first head of the virtuous state, the virtuous nation, and indeed, the entire world!" (ibid., V.15.11).

Not every state or nation will be blessed with a prophet king. So Fārābī allows for a declension into joint rule and rule by individuals who possess some but not all of the qualities he seeks in his ideal. Critical in his account, though, is his founding of the ideal state on receptivity to the pure Ideas shed by the Active Intellect on the mind of the philosopher and mediated to the

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[15] The language is Shī'ite, glossed philosophically by Fārābī.

populace by the imagination. Fārābī sets out his ideal in generic terms, giving a cosmopolitan turn to his reading of the ideas of prophecy and statecraft and rendering his model appropriable by others, such as Maimonides. Still, his enthusiasm for the rule of virtue carries a taint of triumphalism when he calls his ideal imam the rightful ruler of the world. That taint is not diminished when Fārābī recasts Aristotle's own triumphalism about the civilizing effects of slavery for erstwhile barbarians, and applies it to the expansion of Islam, suggesting in *On the Attainment of Happiness* that aggressive wars are justified when they aim "to conquer nations and cities that do not submit to doing what will give them the happiness man is made to acquire . . . The warrior who pursues this purpose is the just warrior, and the warfare that pursues this purpose is just and virtuous warfare."[16] Yet despite this aggressive posture, Fārābī rejects mere conquest for the sake of self-aggrandizing aims, and he conceives of happiness in intellectual terms: reason affords the key to self-rule and self-transcendence. Happiness is intellectual fulfillment, and supreme happiness is the union with the Active Intellect that infuses the mind with the all-embracing wisdom that God himself vouchsafes.

Even Miskawayh, perhaps the most worldly of our philosophers – a courtier and minister of state, historian and lover of literature, who believes that *adab*, courtesy, manners, ethics, and refinement can be won through the study of literature and history – grafts a Platonizing pursuit of contemplative fulfillment onto his Aristotelian vision of the active life, guided by practical and social virtues. The fulfilled mind, he writes, at home in the intelligible world, becomes what it knows. Thus, without loss of worldly engagement it becomes a microcosm, repository of the Forms of all things, illuminated by the divine light that imparts bliss, a fountain of wisdom to others, proof against suffering, ready to rise yet higher to the God-like activity that finds its end within itself and is undisturbed by fear of death, which it now sees as the soul's liberation.[17]

Still, an immortality won by engulfing eternal Forms and letting them infuse the mind with their immutability might seem to come too dear. Matter was purged with the loss of the body and letting go of the world, as Plato's account of the soul's liberation seemed to promise (*Theaetetus* 176ab), but was individuality lost as well? Accountability in the hereafter was no longer the issue it had been for many a philosopher. Plato had claimed in the *Republic* that the just man's well-knit soul is more fit for immortality than the distracted, earthly, or scattered

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[16] *Fī taḥṣīl al-saʿāda* (*On the Attainment of Happiness*), in al-Fārābī, *Philosophy of Plato and Aristotle* tr. M. Mahdī (Ithaca, NY: Cornell University Press, 1962) p. 37. Cf. al-Fārābī, "Le sommaire du livre des 'Lois' de Platon," ed. T. Druart, *Bulletin d'études orientales* 50 (1998) p. 126.

[17] See Majid Fakhry, *Ethical Theories in Islam* (Leiden: Brill, 1994) pp. 119–21.

souls of the tyrant, hedonist, or democrat. That morally grounded argument
also bolstered the *Phaedo*'s appeal to the kinship of minds to the ideas they hold.
Medieval intellectualists gave little thought to tales of retribution, however; the
unmindful, they reasoned, would meet their fitting end in failure to escape
the body's dissolution. Bound to the earth by their desires and appetites, they
would naturally miss the sailing of their ship and lose the chance of reunion with
their ultimate source. As for the philosopher, his rational soul would dissolve
in the divine, from which it sprang. But was the rational soul that merged
with the divine still in any sense the same person it once was? True, it was
his highest, most divine self. But was it still he? This question is soft-pedaled
in philosophers like Kindī and Rāzī; Fārābī does his best to finesse it, but his
varied answers sound equivocal to later writers like Ibn Ṭufayl. Still the issue
remained: if immortality is won by the realization of the soul's affinity to Forms
that are, after all, universals, how could what survives be an individual?[18] (See
Chapter 34.)

To Avicenna, the immortality worth wanting was personal. The challenge
was to show how individuality survives the body. His answer lay in the idea
of intensionality. Personal history, begun in our embodiment, could outlast the
body, for consciousness did not imply physicality. One could readily conceive
oneself aware while afloat, sensationless, in the cosmos. Thus, thoughts of think-
ing entailed no posit of a body (see Chapter 23).[19] The idea that individuation
might depend on self-awareness, not embodiment, was taken up by Ghazālī,
Ibn Bājja, Ibn Ṭufayl, Maimonides, and Levi ben Gershom. It proved invaluable
even to Spinoza and Leibniz. But the immortality it promised would still look
rather bloodless to many a Muslim, Christian, or Jew. Intellectualism, in the
end, seemed to set happiness at too great a remove from the world.

Hence the reaction from literalists like the Zāhiriyya, the movement founded
in the ninth century by Dāwūd ibn Khalaf and brought to fruition in the
eleventh century by traditionalists like Ibn Ḥazm. They take the eschatological
promises and threats of Scripture far more literally than did the Platonizing
philosophers, even as they press for more worldly visions of romance, keen to
sunder divine from earthly love and to purge piety of erotic antinomianism
and pantheistic yearnings.[20] Theologians like Ashʿarī expect the orthodox to
"confess that the Garden is real and the Fire is real," that "the Hour is surely
coming," that "God will raise the dead from their graves" – and that God has a

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[18] See Philip Merlan, *Monopsychism, Mysticism, and Metaconsciousness* (The Hague: Nijhoff, 1963).

[19] See Lenn Goodman, *Avicenna* (Ithaca, NY: Cornell University Press, 2006) ch. 3.

[20] See Lois Giffen, *Theory of Profane Love among the Arabs* (New York: New York University Press,
1971); J. N. Bell, *Love Theory in Later Hanbalite Islam* (Albany: State University of New York Press,
1979); Lenn Goodman, *Islamic Humanism* (New York: Oxford University Press, 2003) pp. 61–6.

face, two hands, two eyes, and a throne on which He sits, "not asking how."[21]
Authoritative creeds will insist on a real scale on which deeds are weighed, and
they will not give up the dark-eyed maidens promised to the blessed in the
Quran – or the interrogation in the grave by the angels Nakir and Munkar,
the "torment in the tomb." Salvation, the creeds will say, rests on grace, for
God guides or abandons whom he will.[22] Mystics will seek pathways of their
own toward grace, seeking direct contact with God, and visions of the furniture
and architecture of his kingdom, using ascetic, ecstatic, or antinomian exercises,
not sheerly intellectual contemplation. An orthodox spirit like Ghazālī finds
in intuition answers to the questions he still frames cognitively. Sufi praxis, he
avows, affords a "taste" of divinity that dissolves all doubts.

   Ḥasdai Crescas, the fourteenth-century Jewish philosopher, responds to the
intellectualist tradition by locating human fulfillment not in knowledge but in
fear and (reciprocated) love of God. Thus, fulfillment of God's commandments
has intrinsic and not just instrumental value. Man is not the same as his mind,
and the philosophers' coy promises of intellectual contact with the divine are
deluded. The "Acquired Intellect" is an incoherent notion, riven between
immanence in the soul and its purported free-standing hypostatic reality. Yet
Crescas, too, pays tribute in a way to the intellectualism he spurns. For the
love of God, and its counterpart in fear of God, like the prayer bouts and
spiritual feats of fakirs and mendicants, were still meant as ways of bringing the
transcendent into human lives. If the love and fear that Crescas commends were
found in ethical and ritual adherence to God's commandments, were they not
still, as the philosophers contended, ways of linking with God – putting the
mind in touch with him, and thereby bearing one's soul upward, toward his
transcendence? Who knows, perhaps even one's body is borne along with the
soul – and if one's body, why not one's friends?

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[21] See al-Ashʿarī, "Two Creeds," in *Kitāb al-Lumaʿ*, ed. McCarthy, pp. 236–7.
[22] The documents are translated in A. J. Wensinck, *The Muslim Creed: Its Genesis and Historical Development* (Cambridge: Cambridge University Press, 1932) pp. 129–31, 194–6.

IDENTITY AND MORAL AGENCY

MIKKO YRJÖNSUURI

As moral agents, people are disposed to act for the sake of what they judge to be morally good. Modern philosophers have often considered such a disposition to be in opposition to another disposition, called "self-interest." In the Middle Ages, however, moral action was often – or even usually – thought to agree with one's own genuine best interests. In effect, all medieval thinkers based their theory of action on the fundamentally Aristotelian principle that human beings are rational agents aiming at the fulfillment of their own nature, guided by judgments about what is good for them – a principle that had been generally accepted even in other ancient philosophical schools. In the medieval period, the most philosophically interesting debates concerned different understandings of this principle rather than its validity. Medieval philosophers fundamentally disagreed about what human persons are as moral agents, and thus they also disagreed concerning the nature of self-interest and its relation to morality.

In particular, medieval philosophers recognized that Aristotle's eudaimonistic principle is philosophically vague in at least two ways. First, the connection between this principle and ethical judgments is in need of an explanation. Does this principle describe the ultimate foundation of morality? Or does it describe individual self-interest as something that is fundamentally distinct from the moral perspective? In other words, is aiming at what is good *for oneself* the same as aiming at what is good *morally*, or is there some other (external) ground for moral goodness? Second, the principle looks vague from another direction because it needs to be grounded on a specific theory of the self. What is the self that acts as a moral agent? Is it the bodily human individual, a psychophysical being that needs food and shelter? Is it an incorporeal soul distinct from the body? Is it some kind of abstract immaterial universal principle that all humans share equally? Accordingly, should we seek our fulfillment in terms of individual or universal good? As we shall see, each of these viewpoints was taken by medieval philosophers, who thus ended up having very different understandings of the Aristotelian principle.

This chapter limits itself to three core issues. The first relates to the problem of our constitution as moral agents: *what are we*? According to the general picture shared by practically all the late ancient and medieval schools, human selves lie in between the corporeal and the intellectual realms, where the intellectual realm that lies above individuation is the ethically higher one. For this reason, classical Neoplatonic thought accounted for moral development as elevation towards the intelligible realm and away from corporeality. The Neoplatonic discovery of one's own real self was a turn away from the particularities of worldly life toward what is universal. In the Middle Ages, a heated discussion arose concerning whether moral development requires one to overcome one's own individual identity in such a manner, with philosophers in both the Arabic and Latin traditions generally holding to the negative. Intellectuality and individuality thus had to be brought to cohere in new theories of the human self, as this chapter will consider through the theories of Avicenna and Averroes.

Second, most medieval thinkers understood morality in terms of self-control, following the ancient tradition.[1] Acting morally was identified as governing oneself in the best way in a given situation. Often, but not always, this entailed suppressing the behavioral impulses of the emotions under rational command. In many cases, however, medieval authors recognized that good self-governance does not always go hand in hand with rationality. That is, they called into question the classical identification of the self-controlling moral agent with an ideally rational agent. As medieval authors often thought, even rationality has its limits, and it is not the case that the wisest human is always the morally best one. When authors like Boethius of Dacia suggested that wisdom is the highest goal of a happy human life, they were promptly rejected.

The limits of rationality become even more obvious in the third and last of the discussions to be considered here. By the late thirteenth century, Latin authors began to question the moral motivation for self-sacrifice. Many of them wanted to remain faithful to their ancient sources and show that, on the final analysis, even self-sacrifice must be motivated by what one believes to be one's own authentic best interests in the circumstances. Some authors, however – most prominently John Duns Scotus – defended what would become a distinctively modern view: that acting rationally means acting for one's own individual best interests, but that this may in some cases – as in the case of morally well-founded self-sacrifice – conflict with what one ought to do. Morality is, in the end, superior to rationality.

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[1] See, e.g., Simo Knuuttila, *Emotions in Ancient and Medieval Philosophy* (Oxford: Clarendon Press, 2004) esp. pp. 111–76; Richard Sorabji, *Emotion and Peace of Mind* (Oxford: Oxford University Press, 2000) pp. 159–349.

WHAT ARE WE?

In *Alcibiades I*, a Platonic dialogue if not by Plato himself, Socrates argues that a human person ought to understand himself as a soul using the body as an instrument for acting in the world and for interacting with other people (see esp. 130a–31a). In the Neoplatonic tradition, the idea that the body is an *instrumentum* (in Latin) or an *organon* (in Greek) is described as the true Platonic position.[2] In his *De anima* (413a8–9), Aristotle mentions this position in a manner that has often been understood as approving of it – but, in fact, his main argument runs against central tenets of the Platonic position as it has been understood since the Neoplatonic era. Aristotle denies, for instance, that the soul is a thing separable from the rest of the human being in the way the heart is. In his view, the soul–body union ought to be understood in terms of the more general form–matter union; just as forms are not (independently existing particular) *things*, neither is the soul a *thing* in its own right (see Chapter 21). Thus, one should identify oneself with the soul–body composite – indeed, there is no other thing that one could identify oneself with. As a practical agent, then, one ought not to identify oneself as a soul, but as a full, embodied person.

In the medieval period, Avicenna (whose *Liber de anima* [from the *Shifāʾ*] was widely used in both East and West) gave the Platonic position its most influential formulation among both Arabic and Latin authors. The core of Avicenna's theory is that, as a moral agent, I ought to understand myself as an incorporeal, immortal thing that has a particular relation to one particular corporeal object – namely, the human body that is mine. For Avicenna, it is important to understand that the soul is a thing distinct from the body, a thing whose existence is not dependent on that of the body. He knows of theories where the soul is taken to be a separable bodily part of a human being, consisting of subtle matter of a different kind from the rest of the body,[3] but he rejects this model on the grounds that, as human persons, we are in a very special way present both to ourselves and to the whole intelligible world. Such self-presence is not to be found in the material world, however. Ultimately, we are things of a very special kind: immaterial individuals.[4]

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[2] See, e.g., *Enneads* IV.7.1; for wider discussion see Simplicius, *In Epicteti Enchiridion* 8, comm. 14. To the late ancient Platonists it was, however, important to emphasize that the rational soul does not need the body for its proper operations: see, e.g., Simplicius (?), *In De anima,* ed. Hayduck, p. 96, commenting on *De an.* 413a8–9.

[3] The notion that the soul is a bodily particle of especial subtlety (*laṭīfa*) was prevalent among the *kalām* Muslim theologians: see al-Ashʿarī, *Maqālāt al-islāmiyyīn,* ed. Ritter, pp. 329–37.

[4] Avicenna presents his well-known "Flying Man" thought experiment (see Chapter 23) to exhibit if not prove the difference between the self and the body, and in this sense there clearly is some similarity to Descartes's *cogito* argument (see *Liber de anima* [*Shifāʾ*] I.1, ed. Rahman, p. 16; ed. Van Riet, pp. 36–7). For discussion and further references, see Michael Marmura, "Avicenna's

Despite this view, which emphasizes our distinction from other animals, Avicenna follows Aristotle in his general metaphysical theory, including the idea that matter is the principle of individuation for most things in the world.[5] Indeed, he thinks that no other animal is a soul in the same way that human beings are: for plants and non-human animals he seems to accept the Aristotelian position that the soul is merely the form of the living substance. The only way to distinguish between the soul and body in these cases is to distinguish between form and matter, where the form is a universal principle. Both plant and animal souls exist as separate from their bodies only as universal denizens of the intelligible world: only human souls can have individual existence even in a disembodied state.[6] Avicenna seems to think that even the sense in which non-human animals can be said to act as unified moral agents must be different from the human case. For us, it is the self-presence of the soul to itself that makes us unified agents capable of controlling different impulses coming from different directions. Since other animals have no such capacity and thus are merely bodily things, their self-conception is by necessity bodily, and thus also the nature of their individual agency is different.[7]

Avicenna's picture suffers from a deep metaphysical problem, however, given that he is working in a broadly Aristotelian framework. It is a fundamental principle of Aristotelian metaphysics that individuality and change stem from materiality.[8] Thus, if the soul is incorporeal, how can it be individual? That is, how could I myself be an individual moral agent if I am incorporeal and merely using a corporeal body? Would it not rather be the body that is the individual agent? Avicenna's general answer to these problems leans on admitting that even human individuality originates in corporeality, or having a body. However, when the soul is separated from the body at death, it continues to exist as an individual. As regards this time, further problems arise. Will the incorporeal soul be capable of *single* actions (even mental acts, understood as individuated events involving change), or will its actuality be limited to eternal and unchanging contemplation of intelligible things without any real agency? Avicenna does hold that separated souls are genuine individuals in virtue of

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'Flying Man' in Context," *The Monist* 69 (1986) 383–95, and Jari Kaukua, *Avicenna on Subjectivity: A Philosophical Study* (Jyväskylä: University of Jyväskylä, 2007) pp. 71ff.

5 See Michael E. Marmura, "Avicenna's Chapter on Universals in the Isagoge of his Shifā'," in A. T. Welch and P. Cachia (eds.) *Islam: Past Influence and Present Challenge* (Edinburgh: Edinburgh University Press, 1979) 34–56.

6 For the distinction between the two types of soul, see *De anima* (*Shifā'*) I.1; for the incorporeality of the human soul, see ibid., V.2.

7 See ibid. V.7, ed. Rahman, pp. 253–4, 256–7; Van Riet, pp. 158–9, 164–5.

8 For individuation through matter see Aristotle, *Metaph.* VII.8, 1034a5–8, as well as Averroes's commentary (*In Metaph.* VII.28) and Alexander of Aphrodisias, *Quaestiones* I.3.

their own intellectual characteristics and that they even exist as agents capable of their own individual intellectual action, but the story is too complex to go into details here (see Chapter 23). Instead, let us turn to Averroes, who seems to have bitten the bullet and accepted that, even in the case of the human soul and its mental acts, individuality requires materiality.

Averroes does not deny that human beings are capable of reaching the incorporeal realm of intelligibility or that this is the highest capacity we have. He also holds that human beings are the only animals who possess the power for understanding the universal natures of things. Despite these views, however, he does not think that the human soul differs from that of other animals in being an incorporeal entity; he holds instead that we reach the intelligible realm as bodily beings. According to Averroes, the soul is not a *thing*, it is the *form* of the animal. In human beings this form somehow yields access to something even higher than the bodily functions – namely, the incorporeal power of understanding. This power, however, is not a part of the human soul.

With respect to Aristotle's distinction between two intellects, active and potential, Averroes agrees with Avicenna that active intellect lies above individuality and acts on the potential intellect to produce understanding. With respect to the potential intellect, however, they hold different views, because Avicenna allowed that the potential intellect is individualized in each person and that each person has his or her own individual power to understand. Averroes, in contrast, thinks that as individuals we are material, but that as intellectual beings we do not differ from each other. Rather, we all share the same power of understanding (see Chapter 23).

In the Latin tradition, Averroes's claim was often misunderstood to different degrees. Importantly, Averroes does not claim that the shared active and potential intellect amount to anything like a human soul: there is no single shared soul in such a sense, and the intellect we all share is not metaphysically an individual – it is not like being logged onto one and the same central computer with one CPU. Even Averroes thought we think our thoughts ourselves.[9] He seems to be claiming only that, as soul–body composites, we share intellectual powers and contents with other people, although we of course may happen to think different thoughts at any given time. Thinking about the number two, we think

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[9] This is, however, a point that medieval Latin authors emphasize more than Averroes. Aquinas, for instance, refers to how we experience our thoughts to be our own and not anyone else's – that by which I think must, therefore, be my own individual intellect (*Summa theol.* 1a 76.1). Ockham, for his part, claims to refute the Averroistic theory of the intellect by referring to disagreements between people, which could not exist if all beliefs were contained in the same subject (*Quodlibet* I.11). Both of these arguments seem to assume that the shared intellect is an individual like us.

about the same content with the same power, but it may of course happen that my thought with its particular phantasms located in my brain (see Chapter 22) occurs at a time different from the time at which you think about the number. In some sense, Averroes may have thought that really understanding the number is something that happens in us rather than something we do. Nevertheless, there is no reason to suppose that Averroes believes I am being acted on by any special, intellectual thinking thing. Instead, he seems to have thought of the human soul on all of its levels as a form of the body. Thus, while Avicenna bound personal identity to the soul in its immortal incorporeality, Averroes bound it to embodiment: we are those things we are as bodily beings. The two authors thus have different views on how exactly to identify the moral agent that each of us is.

The view that the body contributes to our nature as persons has broad roots within medieval thought. In the Galenic medical tradition that dominated the whole medieval period, for instance, the character of a person was explained through different balances of the bodily fluids. Being melancholic, for example, was thought to consist of having black bile as the dominant fluid.[10] Biological sex was also thought to be fundamentally a bodily characteristic, and it deserves mention that central authors in the Christian tradition argued that sex is so crucial to human character that, even after the bodily resurrection, our new, perfect bodies will be sexed.[11]

Different medieval theories embrace to different degrees the idea that qualitative personality derives from the body and its history in the corporeal world. Despite his assertion that we are incorporeal souls, even Avicenna accepted to some degree that this is so. As separated souls we are by necessity very similar to each other; indeed, separated souls seem to differ on his theory only in terms of what they intellectually know. Thus, despite their numerical distinctness, there is little that qualitatively differentiates one soul from another. Knowledge is acquired during an embodied life, moreover, and thus differences between separated souls depend indirectly on differences between embodied souls. To go back to the Platonic example, captains of ships would not, on this theory, differ qualitatively at their origins. Rather, differences between the captains would build up from their having to steer a particular ship. Briefly put, they will learn different things during their careers. According to Avicenna, with respect

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[10] See Noga Arikha, *Passions and Tempers: A History of the Humours* (New York: Ecco, 2007).

[11] The Origenists defended a stronger distinction between earthly and heavenly bodies and opposed this view. For discussion and references, see Caroline Walker Bynum, *The Resurrection of the Body in Western Christianity 200–1336* (New York: Columbia University Press, 1995) pp. 37–8, 67, 74–5, 90–1.

to our inner nature, we are all similar, but due to our individual histories of life, as well as to our particular psychological natures explained by our bodily constitutions, we develop intellectually in different degrees and directions, thus becoming distinct even as separated souls.

Within the Christian camp, the philosophical discussions of the thirteenth century led to the position that who a person is – and thereby also moral responsibility – is to be tied primarily to the soul rather than the body. It became generally accepted that after death God could make a new body for a person but not a new soul, as the soul is what the person is and its replacement would bring about a new person. Some sort of bodily continuity from earth to heaven was still seen as required for personal identity, however, and so the doctrine of bodily resurrection remained in place.[12] Interestingly enough, Augustine had already considered the bodily characteristics each of us would have at the resurrection. He thought that the body's qualitative distinguishing features should and would survive, like the look of the face, sexual organs reflecting sexual identity, scars reflecting martyrdom, and other such things, but that the physical body will, as a whole, be made better in heaven. Following in this tradition, mainstream Christian authors accepted the position that we are not mere souls but have bodies by necessity, and bodies of a very particular kind. Origen's idea that, after the resurrection, we have the perfect shape of a ball never reappeared in later discussions.[13] The opposition between Plato and Aristotle, concerning whether we are souls or ensouled bodies, was never really resolved, however; indeed, in modern conceptions of personal identity we still carry both the intuition that we are psychological selves and the intuition that we are bodily beings.

SELF-CONTROL

The condemnation of 1277 (see Chapter 8) addresses a large number of issues related to identity and moral agency: any reader of this document notices that the psychological constitution of a human being was one of the hottest topics of the time. The Platonic metaphor that the soul is in the body like the helmsman in his ship is forbidden (prop. 7), but so is the Aristotelian extreme, that the

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[12] See Christina Van Dyke, "Metaphysical Amphibians: Aquinas on the Individuation and Identity of Human Beings" (Ph.D. dissertation: Cornell University, 2000); Robert Pasnau, *Thomas Aquinas on Human Nature* (Cambridge: Cambridge University Press, 2002) ch. 12.

[13] Origen's view is documented in Justinian's letter to the patriarch Menas and in Methodius, *De resurrectione* 3.7.1–7; it seems to take inspiration from the commentary tradition on Plato's *Timaeus* 41d–e, where the stars become the vehicles for the newly crafted rational souls. For discussion see, e.g., Henry Chadwick, "Origen, Celsus, and the Resurrection of the Body," *Harvard Theological Review* 41 (1948) esp. pp. 95ff. For wider historical perspectives, see Bynum, *Resurrection of the Body*.

soul is inseparable from the body (prop. 116). The same pattern can be seen in doctrines concerning moral responsibility – the condemnation prohibits a wide array of views that limit human freedom and a person's accountability for his or her own actions. The interest of the church in this document was to counter any philosophical teaching to the effect that mentally healthy, normal adult persons are not free and do not possess moral responsibility for the majority of their actions.

One ongoing discussion at the time concerned the loss of self-control in madness and in the face of strong emotions. It was generally agreed that mental disorder might interfere with moral responsibility: mad people are not to be held responsible for what they do, and such loss of responsibility has to be accepted.[14] But the condemnation draws a line and prohibits the view that emotions can be so strong as to amount to compulsion (prop. 136), or that right action would have to wait until the passion loses its grip (prop. 129). On the other hand, the authorities force everyone to admit that sexual pleasures may impede mental powers, although not excusing one from moral responsibility in the process (prop. 172). It is noteworthy that such propositions come on the list along with those prohibiting astrological explanations (props. 132, 161, and 162), which might give an excuse from one's own responsibility, and that they are complemented by others that prohibit deterministic accounts of nature. Even the view that reasoning may compel one to do something is forbidden. As the condemnation has it, the will is not necessitated by knowledge (prop. 159), nor is it bound to proceed to action after the conclusion in a practical syllogism has been reached (prop. 158).

The propositions listed in the condemnation provide a good overview of the philosophical topics that were taken to be of real importance by the end the thirteenth century, and to some extent in medieval philosophy more generally. One such topic was how to account for the psychological mechanisms behind human agency; perhaps the most distinctive feature of thirteenth-century discussions is the way in which they account for self-control. Classical authors had earlier grappled with the problem of bringing the emotions under rational control, and medieval authors leaned on this tradition (see Chapter 31). Many authors in the Arabic tradition appear to have been relatively satisfied with the idea that reason needs no further control, since it is the highest and best part of human nature – the part that should be in control rather than controlled.[15]

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[14] See, e.g., Henry of Ghent's discussion of "lunatic fury" (*furia lunatica*) that necessitates a person to bad actions; moral responsibility is even here connected to the freedom of the will (*Quodlibet* III.26).

[15] On the side of the theologians see, e.g., al-Ghazālī, *Al-maqṣad* (*On the Beautiful Names of God*), ed. Shehadi, pp. 74, 86.

The condemnation of 1277 shows that, even among thirteenth-century Latin authors, there were those who believed that the best life is gained through the intellectual virtues; Boethius of Dacia, for instance, takes this position in his *De summo bono*.[16] At the same time, many other thinkers insisted that the best sort of human life is not just a life of wisdom. Thus, people need to exercise self-control even in the realm of reason and rationality.

Many thirteenth-century authors claim that the faculty of will can – and should – control the intellect, thus casting the requirement that reason must be controlled in terms of a theory of the will. Peter of John Olivi, for example, makes it clear that the will is higher than reason in all relevant respects: the will can choose between different ultimate aims or even suggest new ones at any time, the will can opt for different means for achieving any given aim, and the will can simply choose to do a certain action without any rational support. To make the point even more clearly to his contemporaries, Olivi claims that when the mind has reached the conclusion of an Aristotelian practical syllogism, the will is still free to choose any other line of action – a choice that need not imply weakness of the will, but rather strength of will in the face of rationality (*Summa* II.85–6).[17]

Although the classical heritage behind medieval views on self-control seems to lie in Stoic thought, the major novelty in medieval philosophy is that self-control does not and should not necessarily rely on rationality. Among both Islamic and Christian philosophers, the primary aim in controlling oneself is to remain good and faithful to God; the aim is not directly that of remaining rational, as it was among the Stoics.

SELF-INTEREST AND RATIONALITY

Individuality, rationality, and morality were brought together in an especially interesting way in certain late thirteenth-century discussions concerning the question of what could motivate a person to die for his nation. Or, as the more exact formulation of the problem goes: what could be the motivation for such an act, and could there be any motivation at all for a person who has no hope for eternal salvation? Could the moral worth of an action be high enough to motivate one last good choice? Or could the good of the nation be an important enough consideration?

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[16] The first set of seven condemned propositions concerns this issue. According to the first, for instance, "there is no more excellent state than to study philosophy" (ed. D. Piché, *La condamnation parisienne de 1277* [Paris: Vrin, 1999]).

[17] See also *Summa* II.57 ad 13 (ed. Jansen, II: 356): "Howsoever much the understanding both universally and particularly considers and actually knows . . . still the will can do whatever."

In general, this discussion assumes both that such an action is indubitably the morally correct choice and that it is fatally bad for the individual. Also, it is assumed that human agents are driven by the Aristotelian striving for happiness. However, in a case like this, referring to such motivations appears to amount to claiming that death could foster one's own happiness. How could that be? Three main solutions are put forward.

1. Godfrey of Fontaines claims that individual life has a lesser value than the common good for a rationally behaving person. The hero feels so strongly a part of the whole that he actually sees himself benefiting from the action that ends with his death; he sacrifices his individual good for the good of the whole because he is, very importantly, a part of the whole.[18] The discussion refers back to the ancient metaphor of society as an organic whole where individuals are like limbs. As Godfrey of Fontaines interprets the metaphor, the limb aims in a way at its own best interests when it tries to protect the whole at its own individual expense, because the best for the part is whatever is best for the whole. Godfrey does understand that most of the nation is outside the individual, and in this sense he accepts that in self-sacrifice the individual is aiming at something that must be seen as an extrinsic good in a sense. However, it is extrinsic only to the individual, not to the whole whose part he is. In this sense, Godfrey of Fontaines emphasizes, "his own best good results" (tr. McGrade, p. 306).

This suggestion can be labeled "collectivist." Self-interest can motivate self-sacrifice only if it is accompanied by a conception of the greater collective self whose interest is to be served. From the collectivist viewpoint, the self whose interest a rationally behaving person serves is the whole nation. (This also is the formulation given by Remigio de' Girolami some decades later when he says that in such a sacrifice the person takes the nation as his own self.[19])

2. Henry of Ghent objects to this way of looking at the situation by pointing out that if the limb in the mentioned metaphor had its own mind, it would not make the choice to sacrifice itself for the whole.[20] His approach is more individualistic; he thinks that every person with his or her own mind is a self for himself or herself. If we do all have our own minds, however, then it appears that no one will have a sufficiently strong collectivist self-understanding as to give his life for his nation. As Henry of Ghent sees it, such heroic acts must

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[18] See *Quodlibet* X.6 and XIII.1, both translated in A. S. McGrade *et al.*, *Cambridge Translations of Medieval Philosophical Texts*, vol. II: Ethics and Political Philosophy (Cambridge: Cambridge University Press, 2001) pp. 271–84 and 301–6; see esp. pp. 305–6.

[19] See M. S. Kempshall, *The Common Good in Late Medieval Political Thought* (Oxford: Clarendon Press, 1999).

[20] *Quodlibet* XII.13, translated in McGrade *et al.*, *Cambridge Translations* II: 267.

arise from individualistic considerations. The person may think, for instance, that vice must be avoided at all costs. Thus, if he does not give his life, then the badness of the undone deed will follow him, and he will not be able to enjoy virtuous life anymore. Heroic death, in contrast, will make everyone remember him in an honorific way. In taking this approach, Henry of Ghent follows the Aristotelian (and even more generally ancient) thinking that morally good choices are always in one's own best interests.[21]

Despite their different conceptions of the self, these two approaches share the classical presumption that there are no motivational forces besides self-interest: the explanation for why a person sacrifices his life and everything he has must be self-interest, because there are no other psychological motivations. Even heroic virtue derives from self-interest, assuming the person has a correct self-understanding and can see what is best for himself.

3. Franciscan authors of the time think differently. On their view, human freedom is wide enough to allow the possibility of recognizing other ultimate ends besides one's own happiness, even when that happiness has been clearly identified. Some, most prominently John Duns Scotus, invoke the Anselmian distinction between affection for benefit and affection for justice (see Chapter 35). On this view, a person acting only for happiness does not rise to the moral level at all, for ethics depends on valuing the affection for justice. Other Franciscans, like Olivi, even hold that there are no restrictions on what one can posit to oneself as an ultimate end (*Summa* II.57 ad 28, ed. Jansen, II: 376). As a typical example of an ultimate end that is freely chosen, he mentions other people: in loving a person, one freely chooses to take that person and what is best for her as ends in themselves, and indeed without any other motivation whatsoever.

In general, the Franciscans agree that all human beings have a natural tendency to act for their own individual best interests. This is not, however, what morality consists in. Rather, human beings are free to strive for other ultimate ends, and moral ends are one such category. Although human beings have the capability to be moral, this would not necessarily be in their own individual best interests. This is the line of thought that Scotus, for instance, follows in his explanation of self-sacrifice (*Ordinatio* III.27). His idea is that a person chooses to put the welfare of society as an end in itself, and even a higher end than his own best interests. Thus, in his choice, he is knowingly and willingly acting against his own good.

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[21] Aristotle considers the case in *Nic. Ethics* IX.8, 1169a18–20 and III.6, 1115a24–b7. Henry's remarks come very close to what Aristotle says in the latter text.

Scotus seems to have thought that such a choice is rationally motivated, but it is clear here that he does not understand practical rationality in a genuinely Aristotelian way. What we have is the contrast between rationality as leading one to act for one's own good, and morality as leading one to act as one should according to eternal or natural law. In extreme cases, morality may require one to act against what rationally would be one's individual best interests.

THE INCLINATION FOR JUSTICE

JOHN BOLER

Ancient philosophers had a well-equipped repertory of descriptions for human activity, but it was only after Augustine that thinkers, especially in the Latin West, adopted an explicit concept of the will. This allowed them, for better or for worse, to set out a good portion of their philosophical psychology in terms of the interaction of intellect and will (see Chapter 30). Toward the end of the eleventh century, Anselm proposed a distinction *within* the will between an "inclination for justice" and an "inclination for benefit." An agent's "every merit, whether good or evil," he says, derives from one of these two basic inclinations (*De concordia* III.12). Two centuries later, citing Anselm, John Duns Scotus adopts the labels but, as we shall see, develops a significantly distinctive account. Pairings of this general sort can be found in ancient philosophy (and will be discussed briefly below), but the developed idea of dual basic inclinations of the will is probably unique to Anselm and Scotus. But while explicit appeal to inclinations of the will is thus rare, the issues raised here by Anselm and Scotus are central even nowadays in the analysis of moral psychology (as in debates about the nature of the moral object or the status of free will) as well as in moral theology (on sin and grace).

ANSELM

Justice is a central concept in Anselm's moral theory, and it appears in all his writings. In several works – *De casu diaboli* (*The Fall of the Devil*) and *De concordia* – he considers justice in the context of the two basic inclinations of the will. In an earlier dialogue, *De veritate*, he takes up directly the more fundamental question with which we should begin, the question of what justice is.

Anselm's basic notion when dealing with normative issues is *rectitudo* or rightness.[1] At one point, Anselm says that truth, rightness, and justice are

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[1] See *De veritate*, *passim*. As Jasper Hopkins remarks in his useful guide to Anselm's work in general: "Anselm will attempt to show that every instance of truth is an instance of rightness. He investigates

defined in terms of one another. The student objects that we do not speak of the justice of a stone. But Anselm replies only with a distinction: "I see you are asking for a definition of that justice that is praiseworthy, even as its opposite – that is, injustice – is blameworthy." The implication is that he does not object to speaking of the justice of the stone! But it is typical of Anselm to adapt ordinary words as technical terms: here, to situate the notion of justice he has in mind, he restricts the notion to that justice that is praiseworthy. Consequently, the teacher and student in the dialogue set about the analysis of "that justice," concluding that it is rightness of the will maintained for its own sake: that is, not willed out of ignorance or because of coercion, or for any other end (for instance, vainglory).[2]

Jasper Hopkins, presumably concerned that Anselm's definition might seem to locate moral value in the will to the exclusion of the action involved, glosses it as "willing what is right only because it is right (i.e., always willing it for no other reason than that it is right)."[3] And Anselm does say that "whoever does not will what he ought to will is not just" (*De veritate* 12).[4] That is, he is willing to describe actions as morally right or wrong, good or bad, and to figure that into the evaluation of the agent's rightness of will. But he is equally insistent that "Every rational nature, as well as any of its actions, is called just or unjust in accordance with a just or unjust will" (*De concordia* I.7). What this reflects, however, is not a suspicious voluntarism on Anselm's part, as if he were a forerunner of Peter Abaelard's exclusive focus on the will's consent as the locus of moral value (see Chapter 37). Instead, this is what one might call a "grammatical remark" that need start no moral hares. Nowadays we may think of justice primarily in connection with kinds of action. But Anselm would not be unusual in his time in thinking of a kind of justness that is a "virtue of the soul." That is, for Anselm, the proper subject of "is just" or "has justice," as he means it here, is a person, an agent with reason and will.

If justice is uprightness of will kept for its own sake, Anselm points out, then we are dealing not only with what a person ought to do – he seems to take pretty much for granted that his readers can make that judgment – but more importantly with the *reason* the agent performs the action (*De veritate* 12). The approach he takes here parallels the one in which we can repeatedly ask, "Why is the agent doing that?", eventually arriving at the allegedly basic motive: "Because (he thinks) it will be to his benefit" or alternately "Because it will

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correct statements, right thoughts, upright willing, righteous action, correct perception, the straightness of a material object, and the rightness of all natures" (*A Companion to the Study of St. Anselm* [Minneapolis: University of Minnesota Press, 1972], p. 231 n. 5).

[2] *De veritate* 12. It is "the truth of the will": *De veritate* 4.

[3] Hopkins, *Companion*, p. 232 n. 8.   [4] See also *De veritate* 5.

make him happy." Anselm thinks that his analysis of justice shows that we need to recognize another basic inclination. In sum, we can determine what an action is – correctly describing it as, say, theft or almsgiving – and evaluate it as good or bad, simply in terms of the kind of action it is, but we do not fully understand the moral situation until we know ultimately why the action is done: that is, is it done for benefit (to achieve one's perceived advantage), or is it done to maintain rightness of the will for its own sake? As Anselm says, an agent's "every merit, whether good or evil," derives from one of these two basic inclinations (*De concordia* III.12).

One might expect that dual basic inclinations would have a similar structure, but Anselm takes pains to show how radically different they are (ibid.). To have the inclination for justice, he says, is to have justice (to be just). Since one can, as the devil did, "desert" justice, it follows that one can lose the inclination for justice; once lost, Anselm says, creatures cannot recover it on their own, but require the grace of God.[5] By way of contrast, Anselm holds that the inclination for benefit is "natural" for rational creatures and so cannot be lost. It is an inclination to *seek* benefit, and Anselm maintains we always act on that inclination (*De casu diaboli* 12). This is a matter of self-interest, of course, though that is not the same as selfishness. For the most part, the inclination for benefit will have to do with actions that are, in themselves, morally neutral; thus, there is no necessary conflict between seeking benefit and acting justly. It is clear that Anselm is thinking as well of the inclination for benefit in the broader sense of a flourishing human life. Even here, however, the only source for conflict Anselm sees between the two inclinations would be if we have an inadequate idea of where our true or ultimate benefit lies.

We learn something more about the role of these basic inclinations of the will in *De casu diaboli*, though Anselm assumes there that the reader is already familiar with his account of justice and with the idea of basic inclinations. His labels sometimes vary – he will speak of an inclination for rightness (*voluntas rectitudinis*) and more frequently an inclination for happiness (*voluntas beatitudinis*) – but the doctrines are the same as with justice and benefit.[6] The central issue

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[5]   That the inclination for justice can be lost, see *De concordia* III.12. On the need for God's grace, see note 9 below.

[6]   *De casu diaboli* 12 and 13. In the *De casu diaboli*, he speaks of a "will" for justice and for benefit or sometimes happiness (see especially chs. 12 and 13), but later in *De concordia* III.11 he recognizes that his use of *voluntas* is equivocal: sometimes meaning the instrument for willing (i.e., the will), sometimes the exercise of that instrument (individual acts of willing), and sometimes the inclinations of the will (*affectiones*). Scotus follows the mature usage, referring to an *affectio iustitiae* and an *affectio commode/beatitudine* (see note 12 below).

here is how good creatures can go bad.[7] The devil provides a pure case of doing evil because he is not given to intellectual mistakes nor swayed by passion. Something the same can be said of prelapsarian Adam and Eve, due to their preternatural properties – properties that were lost to the rest of us because of the Fall.

Anselm proposes a thought experiment in which God creates an angel step by step, first providing it with a will and then equipping it with one or the other basic inclination (*De casu diaboli* 13–14). This is a pure fiction, of course, and it is hard to imagine what such half-finished creatures would be like if they existed. Anselm's point is that such a partially equipped angel would not be an autonomous agent and so could not be held morally responsible for its actions. An agent with only one such inclination would necessarily seek the highest benefit or the highest justice available to it.[8] That principle is important for Anselm. But he wants the thought experiment to show in particular that the inclination for justice enables a "complete" rational agent to moderate what would be an otherwise unchecked desire for benefit.

The angels (as well as Adam and Eve) were created as complete, rational agents with both inclinations. Moreover, they were not created in some neutral state and then expected to attain justice; Anselm holds that no creature can attain justice on its own (that is, without the grace of God) (see Chapter 32).[9] When the evil angels and the first human beings "desert" justice, they are then necessarily limited to the pursuit of the highest attainable benefit; since they cannot attain the higher happiness that would go with acting justly (*De concordia* I.6), they will seek to satisfy lower – what Anselm calls "base" – desires in an intense and unjust (that is, a corrupt or distorted) way (*De casu diaboli* 13). That is to say, sinners who desert justice will have a false picture of true human flourishing. They will presumably be able to handle normal means–ends decisions about their benefit, but Anselm thinks those will be operative within a life orientation that is perverse.

It is important, however, not to confuse the condition of the human or angelic sinner with that of the incomplete angel. Lacking the inclination for justice, sinners will not be able to moderate their desire for benefit. But Anselm says that sinners (unlike the incomplete angel) are still responsible for

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[7] See *De concordia* III.13, where this is likewise the central issue.

[8] Sandra Visser and Thomas Williams defend the interesting interpretation that Anselm is not arguing here from a need for alternate possibilities but rather a notion of autonomy: "Anselm's Account of Freedom," in B. Davies and B. Leftow (eds.) *The Cambridge Companion to Anselm* (Cambridge: Cambridge University Press, 2004) pp. 186–94.

[9] *De casu diaboli* 9; *De concordia* I.7, III.3–4; *De libertate arbitrii* 5–7.

their indulging these "base desires" because of the original desertion of justice (*De concordia* III.7). Presumably this goes along with the fact that rational creatures (again unlike the incomplete angel) have by nature the ability to retain justice. Interestingly, it is this latter ability rather than the inclination for justice that Anselm identifies with the "*power* of free choice." While the presence of the inclination for justice makes the agent capable of moderating the inclination for benefit, it is retaining justice, presumably in the face of temptation, that Anselm sees as the true exercise of free choice (*De libertate arbitrii* 3).[10] In holding that this power is natural to rational agents, Anselm can maintain that humans (and presumably the devil) never lose free choice – though without justice, of course, it is useless. But for humans, at least, when justice is restored by the grace of God, their full autonomy, including the exercise of freedom of choice, is again effective.

The loss of the inclination for justice leaves a rational being in the most grievous of circumstances, unable to act justly until that inclination is restored. Presumably, it is only the most serious sin that results in that loss. Even so, it is interesting to consider the resulting state of the sinner. Anselm insists that nothing essential to the agent is lost along with justice (*De libertate arbitrii* 2). And he is probably thinking that his special analysis allows him to claim that the sinner retains the "power of free choice." But elsewhere he holds that it is rational to choose happiness with justice over happiness without justice (*De concordia* I.6). If to fail to make that choice were acting irrationally, the devil's "misjudgment" would seem to be an intellectual error. It is likely, then, that Anselm thinks the loss of justice carries with it a certain "warping" of reason, such that even if simple means–ends reasoning is active, good sense about ends is still obscured.

Anselm does not develop what one might expect today as a moral theory. He gives very few examples of morally good and bad actions, generally avoiding problematic cases and offering no test for their discrimination. As we have seen, his concern in these discussions is how good creatures can go bad, and the context of his solution is a theological one of sin and grace. In the process, of course, he has opened up central issues in moral psychology. And, as might be expected, philosophical commentary – when it has dealt with these texts at all and not been distracted by the irresistible fascination of his "ontological argument" – has focused on that aspect of the dual inclinations.

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[10] Anselm argues that the power of free choice cannot be an ability to choose good or evil. To choose evil, he claims, is a failing or weakness and not an exercise of the power of free choice (*De libertate arbitrii* 1) (see Chapter 29).

JOHN DUNS SCOTUS

Writing two centuries after Anselm in the intense atmosphere of the universities in the high scholastic period, Scotus has a much more fully developed moral theory, along with a sophisticated metaphysics that underlies his account of free agency.[11] Although it will not do justice to the details of Scotus's full treatment of the issues, it is possible to characterize the essentials of his notion of dual basic inclinations of will by playing it off against Anselm's account. When setting out his own idea of the inclinations, Scotus cites Anselm's thought experiment of the angel-in-progress in *De casu diaboli* and adopts the labels of *affectio commodi* and *affectio iustitiae*.[12] Moreover, he describes the inclination for justice as moderating the inclination for benefit.

Although these are not insignificant parallels, in fact the similarity pretty much ends there. In Scotus's account, even the two inclinations show important differences from Anselm's treatment. Scotus describes the inclination for benefit as a "natural will." More precisely, he sees it as the natural appetite of an intellectual agent, and he claims that, as such, it is no more free than any natural appetite, such as the sensory appetite.[13] What he has in mind here is an Aristotelian theme within medieval thought that has developed well after Anselm, where choosing what we take to be good means choosing something perfective of us, something that actualizes our potentialities. The moral outlook is then situated within this single human purpose now usually referred to as "human flourishing."[14] Scotus's view is that such a natural appetite does not attain to the moral order at all.[15] He allows that, because of that appetite, we cannot nill happiness or will to be miserable. But he maintains that in order to act as we ought, it may be necessary at times simply not to will either way on

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[11] Allan B. Wolter, *Duns Scotus on the Will and Morality* (Washington, DC: Catholic University of American Press, 1966) is a convenient source for the references to Scotus made here, containing both an English translation and the Latin texts.

[12] *Ordinatio* III, suppl. dist. 26 (ed. Wolter, p. 179). As it happens, Scotus does not use the Anselmian labels at all frequently. However, in extended discussions of the sin of Lucifer (*Ordinatio* II.6.2 [ed. Wolter, pp. 462–77]) and of happiness (*Ordinatio* IV, suppl. dist. 49 [ed. Wolter, pp. 182–96]), it is clear that he has the two inclinations in mind and that he associates with the inclination for benefit such single-purpose systems as that of Aquinas (note 14, below).

[13] *Ordinatio* IV, suppl. dist. 49, qq. 9–10 (ed. Wolter, pp. 185, 191); *Ordinatio* II.6.2 (ed. Wolter, pp. 469, 471); *Ordinatio* III.17 (ed. Wolter, pp. 180–3). See also Thomas Williams, "From Metaethics to Action Theory," in T. Williams (ed.) *The Cambridge Companion to Duns Scotus* (Cambridge: Cambridge University Press, 2003) pp. 343–5.

[14] Williams, "From Metaethics," p. 334. One can see this in Aquinas (whom Scotus surely had in mind in his criticism): *Summa theol.* 1a2ae qq. 1–5 (on the ultimate end of humans) and q. 94 (where this is spelled out for virtue).

[15] *Ordinatio* II.6.2 (ed. Wolter, pp. 472–5). For a helpful discussion, see Williams, "From Metaethics," pp. 335–45.

the scale of benefit, but to override or set aside considerations of happiness or personal fulfillment.[16]

What allows us to operate within the moral order is, then, the inclination for justice. For Scotus, the freedom that this requires is not due to the interplay of the two inclinations but is the product solely of the inclination for justice. In fact, the character of that inclination for him derives less from an analysis of justice or rightness of action for its own sake and has to do more with the idea of freedom itself. The inclination for justice is the "innate freedom of the will."[17] As the locus of free choice, then – Scotus does not adopt Anselm's special definition of "free choice" – the inclination for justice cannot be lost. It follows that having a will for justice is not, as with Anselm, having justice or being just. If it were, then everyone would be just simply by dint of having the rational power that is the will.

For Scotus, moral responsibility requires that the will be a "rational power" – a power for opposites – and a good deal of recent commentary has understandably been directed to the radical notion of freedom (or autonomy) presented in Scotus's analysis of a rational power (see Chapter 30).[18] His predecessors allowed that, prior to choosing, a rational agent had the power to will and the power not to will (or to will this rather than that). But when the choice was made, and while the will to do x was actual, the agent did not have the power to will not-x. (Compare: It is not necessary that Socrates sits; but when he sits, he sits necessarily.) For Scotus, however, freedom of the will requires that the agent must have the power to do otherwise even while willing x.

Scotus's radical notion of freedom in the will is important in itself and for understanding the inclination for justice as the "innate freedom of the will." However, it should not distract attention from the role of the inclination for justice in Scotus, which lies precisely in its enabling the rational agent to respond (freely) to the values of a moral life.[19] That is to say, the inclination for justice provides not only "freedom from" necessity but "freedom for" a certain kind of life. The full story of Scotus's theory therefore requires an inquiry into the nature of the morality that the inclination for justice supports. By appealing to a distinct inclination for justice, Scotus offers a picture of the moral life as rising above the world of nature, including even the natural appetite of an intelligent

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[16] *Ordinatio* IV suppl. dist. 49, qq. 9–10 (ed. Wolter, pp. 192–3).

[17] *Ordinatio* II.6.2 (ed. Wolter, pp. 468–9).

[18] *Quaest. in Metaphys.* IX.15 (ed. Wolter, pp. 144–73). See also Calvin Normore, "Duns Scotus's Modal Theory," in Williams, *The Cambridge Companion to Scotus*, 129–60; and also Simo Knuuttila, *Modalities in Medieval Philosophy* (London: Routledge, 1993).

[19] Williams, "From Metaethics," p. 348; Richard Cross, *Duns Scotus* (Oxford: Oxford University Press, 1999) p. 87.

creature. To say anything more about what that inclination consists in is just to spell out Scotus's substantive ethical theory. The major controversy here is whether Scotus defends a divine command theory or a more familiar scholastic theory dependent upon right reason.[20] It is a complex and controversial issue that, like the analysis of his notion of freedom itself, exceeds the limits of the present chapter.

EARLIER PAIRINGS

Before closing, a brief word may be in order on the tradition of "moral pairings" preceding Anselm. As early as Plato and Aristotle, one finds the pair *agathon* and *kalon*. *Agathon* is "good" broadly taken: that is, what one aims at or what satisfies one's aims. So understood, there are many "goods," and central to those is the notion of benefit or usefulness in achieving personal well-being (see, for instance, *Nic. Ethics* VIII.2, 1155b20). *Kalon*, in contrast, has the sense of excellence and beauty, or even style.[21] More important for present purposes, it has to do with ends pursued for their own sake, in contrast to the useful or beneficial as means to a happy or satisfying life.

Apparently the Cynics were unusual if not unique in finding a basic conflict between *kalon* and our natural aims. In part this stemmed from the fact that, for them, nature is primitive and opposed to culture and the rational, so "living according to nature" is brutish and in conflict with civilized society.[22] But for the Stoics – Seneca, and especially Cicero, who was a more direct influence on medieval Latin authors – a conflict could only arise if we had an inadequate understanding of our true happiness. The correct grasp of human happiness is "living according to nature"; and for them that meant living according to virtue in preference to any other aim.[23]

In any event, the Latin translation of *agathon* and *kalon* would be *bonum* and *honestum*, with the focus in the former on what is beneficial or useful (*commodus, utile*). The connotation of *honestum* is something sought or desired for its own sake.[24] This terminology was familiar throughout the Middle Ages. It seems

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[20] Thomas Williams argues for the former (Williams, "From Metaethics," p. 346–7); Allan Wolter (introduction to *Duns Scotus on the Will and Morality*, pp. 3–5) and Richard Cross (*Duns Scotus*, pp. 90ff) defend the latter.

[21] Terence Irwin's translation of the *Nicomachean Ethics* renders it as "fine" (p. 401; cf. p. 406).

[22] See Frederick C. Copleston, *A History of Philosophy* (Westminster, MD: Newman Press, 1946–75) I: 395, 410, 417.

[23] Terence Irwin, "Stoic Naturalism and its Critics," in B. Inwood (ed.) *The Cambridge Companion to Stoicism* (Cambridge: Cambridge University Press, 2003) 345–64. The reference to Cicero is *De officiis* III.21–8.

[24] See Thomas Aquinas, *Summa theol.* 1a 5.6, 1a2ae 8.2 ad 2, and 8.3 ad 4.

doubtful that Anselm read widely in the ancient Greek sources. But it is likely he read both Seneca and Cicero and he could have got the general contrast, as well as the specific pair, from Ambrose (*De officiis* I.9). The usage was reinforced later on when the writings of Aristotle became influential.[25]

The history of the *honestum–commodus* pair is an interesting one that deserves more attention in the study of medieval moral theories than is usually given it. But it is worth repeating that it is in Anselm and Scotus that we find the developed idea of dual basic inclinations of the will.

[25] Aquinas cites Aristotle and Cicero, e.g., in *Summa theol.* 2a2ae 145.1c and ad 1.

VIRTUE THEORY

BONNIE KENT

BASIC ISSUES

From antiquity through the Hellenistic era, all the leading philosophers argued that people acquire virtues naturally, through their own learning and practice. As we are the sole or principal cause of our virtues, so too are we the sole or principal cause of our happiness. The theocentric ethics favored by later Jews, Christians, and Muslims left open to question what insights might be gleaned from these earlier anthropocentric theories. As a result, disputes about the various causal theses of ancient ethics run like a leitmotif through the medieval literature. Are virtues God-given, or can we acquire them just by exercising the natural human capacities of intellect and will? Are virtues sufficient, or even necessary, for obedience to God's law? Is happiness, whether now or in the afterlife, actually caused by our virtues, or is it a divine reward – perhaps even simply a divine gift?

On the whole, medieval thinkers concentrated less on criticizing earlier views than on developing alternative theories of virtue. In constructing such theories they argued as much with each other as they did with the teachings of ancient philosophers. As it was open to debate how philosophical works should be interpreted, so it was open to debate how Scripture and the "authoritative" works of one's own religious tradition should be interpreted. Much of what today is orthodox doctrine was still in the making. For instance, even Muslims who agreed that people attain complete happiness only in the afterlife disagreed about how this relates to virtue. Inspired by Neoplatonic teachings, Avicenna described the soul's fortunes after the death of the body as the effect of the individual's own conduct in this life. Eternal happiness is achieved by acquiring the moral dispositions necessary to purify one's soul; it is not some external reward meted out by God for good behavior.[1] Al-Ghazālī, on the other hand,

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[1] Avicenna attributes this doctrine to the ancients in his short "Essay on the Secret of Destiny." He defends it as his own in the *Metaphysics* of *The Healing* IX.7, X.3. A helpful survey of medieval Muslim

strongly opposed the claim that human self-development brings happiness in the afterlife. On his view, this naturalistic doctrine is doubly mistaken, for no virtue can be acquired without God's assistance, and no virtues that we do acquire bring eternal happiness. Such happiness comes always as a divine gift or favor.[2]

Aristotelian ethics, especially as developed among Islamic interpreters, took on a strong current of intellectual elitism: it suggested that only people with well-developed intellects can achieve true happiness (see Chapter 33). This became a major source of controversy among Jewish thinkers. Moses Maimonides was among those who believed such elitism compatible with the true message of the Torah. His *Guide of the Perplexed* claims that moral perfection is necessary for intellectual perfection but should not be sought for its own sake. Few people ever acquire true metaphysical opinions about God, but intellectual perfection should still be our goal, for it alone enables the soul to survive the death of the body and attain the greatest happiness possible for human beings (I.34, III.51–4). Ḥasdai Crescas rejected this conclusion on both philosophical and religious grounds. His *Light of the Lord* argues that happiness and immortality come from the perfection of the soul, something attainable by all who love and fear God. Not only are Aristotelians wrong in overvaluing intellectual achievement, they are wrong in thinking that the human intellect could become an immortal substance by acquiring true beliefs (II.6.1).[3]

At first, medieval Christians stayed largely within the theocentric framework of the Church Fathers. They endorsed three basic theses, all of which had been defended by Augustine:

(1) The ultimate end of happiness (*beatitudo*) lies in the afterlife, in the soul's union with God.
(2) Nobody can attain happiness without charity, the root of merit and of all genuine virtues.
(3) Charity is itself a gift of grace, not a reward for antecedent merit (see Chapter 32).

All of these theses enjoyed wide support up to the end of the Middle Ages, except for the claim that charity is the root of all genuine virtues, which Augustine himself seemed to endorse in some places but not in others.

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accounts of virtue is given in George Hourani, *Reason and Tradition in Islamic Ethics* (Cambridge: Cambridge University Press, 1985).

[2] See *Revival of the Religious Sciences* 32.3 (tr. Littlejohn). See also Mohamed Ahmed Sherif, *Ghazali's Theory of Virtue* (Albany: State University of New York Press, 1975) ch. 3.

[3] W. Harvey translates this section of *The Light of the Lord* in A. Hyman and J. Walsh (eds.) *Philosophy in the Middle Ages,* 2nd edn (Indianapolis, IN: Hackett, 1973) pp. 440–9. For a detailed study of medieval Jewish debates about the virtues, see Hava Tirosh-Samuelson, *Happiness in Premodern Judaism: Virtue, Knowledge, and Well-Being* (Cincinnati, OH: Hebrew Union College Press, 2003).

Until the mid-fourteenth century only a small percentage of Augustine's works was actually studied. Medieval scholars knew his vast body of writings mainly through collections of excerpts (*florilegia*), creating no small puzzlement about how his various *dicta* fit together.[4] In one work, for instance, Augustine defines virtue as the perfect love of God and presents each of the cardinal virtues as a form of love. In a second work, he distinguishes virtues, which cannot be "badly used," from powers of the soul, which can be. In a third work he says that virtue is the good use of free will, which comes from God.[5] With so many divergent passages about virtue to choose from, medieval authors typically highlighted those they favored and downplayed the ones that seemed wrong.

When authors combined non-Christian sources with specifically Christian ones, the task of theorizing became even more challenging. For example, the Church Fathers had endorsed the fourfold Stoic division of virtue, but they christened wisdom (or prudence), justice, temperance, and fortitude the "cardinal" virtues and recast them in Christian terms.[6] These four virtues accordingly joined faith, hope, and charity, the God-given virtues praised by Paul (esp. I Cor. 13) as staples of medieval virtue theory. Following Cicero's lead, twelfth-century authors introduced a good many other virtues as "parts" of the cardinals. And from Macrobius they learned of Plotinus's hierarchical scheme, with "political" virtues at the bottom and "exemplary" virtues at the top.[7] The notion of "political" virtues, however, ushered in a different conception of the cardinals: namely, as virtues that someone without God-given charity might acquire through her own natural resources. These conflicting conceptions of the cardinal virtues posed problems for medieval theorists. When the cardinal virtues are naturally acquired – and so are merely "political" or "civic" virtues – are they true virtues? If not, does God's gift of charity transform them into true virtues?[8]

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[4] For example, scholars have established that Peter Lombard, whose *Sentences* comes packed with over 650 quotations from Augustine, had direct knowledge of only four works by Augustine: *On Christian Doctrine,* the *Enchiridion, On 83 Different Questions,* and the *Retractationes*. See Jacques Guy Bougerol, "The Church Fathers and the *Sentences* of Peter Lombard," in I. Backus (ed.) *The Reception of the Church Fathers in the West* (Leiden: Brill, 1997) I: 115. The "Augustinian revival" of the mid-fourteenth century is discussed in William Courtenay, *Schools and Scholars in Fourteenth-Century England* (Princeton, NJ: Princeton University Press, 1987) pp. 307–24.

[5] Augustine, *De moribus ecclesiae* XV.25; *De libero arbitrio* II.18; *Retractationes* I.9.

[6] For examples see Jerome, *Epist.* 66.3, which makes following Christ the supreme example of wisdom, and Ambrose, *De officiis* I.28, which explores the cardinal virtues only after arguing that nothing is virtuous unless it helps in attaining eternal life.

[7] Cicero, *De inventione* II.53–4; Macrobius, *In Somnium Scipionis* I.8; Plotinus, *Enneads* I.2.

[8] The first stage of debate on this topic is recounted in Odon Lottin, "Les vertus morales acquises sont-elles vraies vertus? La réponse de théologiens de Pierre Abelard à St. Thomas d'Aquin," *Recherches de théologie ancienne et médiévale* 20 (1953) 13–39. Augustine sometimes uses the term "civic" in describing the virtues of pagans.

Over the course of the twelfth century, as a growing number of authors began to classify virtue as a *habitus*, some were plainly influenced by ancient ethics.[9] One source for this classification was Cicero's definition of 'virtue' as "a *habitus* of the soul in agreement with the mode of nature and reason." Another was the *Categories*, where Aristotle describes a *habitus* as a quality more permanent and harder to change than a mere condition.[10] Since Aristotle's reference to knowledge and the virtues as examples of *habitus* seemed to resonate with Cicero's later usage, Peter Abaelard cited both as support for his own account of virtue as a *habitus* of the soul – that is, a quality produced by our own efforts and very difficult to dislodge.[11] Roughly the same account of virtue appears in the dialogue between a philosopher and a Christian in Abaelard's *Collationes,* though here it is the philosopher who presents virtue as a *habitus* of the soul acquired by practice and deliberation. The Christian claims that only charity should be called a virtue if "virtue" is properly understood as that which obtains merit with God.[12] Alas, the text of the dialogue ends without any explanation by Abaelard of how virtue "properly understood" might relate to virtue understood as a *habitus* acquired by our own efforts.

Other twelfth-century authors, probably influenced by Augustine, distinguished sharply between having a virtuous *habitus* and performing, or even being able to perform, related actions. Some proceeded to argue that babies receive virtuous *habitus* through the grace of baptism, although they cannot exercise these virtues until they mature.[13] In 1201 Pope Innocent III mentioned their opinion without accepting or rejecting it.[14] In the later thirteenth century, Peter of John Olivi accordingly felt safe in opposing this "modern" doctrine. Why should infants need supernaturally caused *habitus* in order to be acceptable to God? One need not posit a change in the child as a result of baptism, Olivi argues, but only a change in the child's relationship to God. Experience

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[9] The Latin *habitus* appears in some English translations of medieval texts as "disposition"; in many more it appears as "habit." The first is a better translation than the second but still seems too narrow and naturalistic, because most medieval theologians from the late thirteenth century onward held that virtuous *habitus* are supernaturally infused into infants as a result of baptism. For this reason I have chosen to leave the word untranslated. (Note that the plural form of *habitus* is the same as the singular.)

[10] Cicero, *De inventione* II.53; Aristotle, *Cat.* 8b26–9a4.

[11] Abaelard, *Ethics* pt. II (ed. Luscombe, p. 128). The (unfinished) text of Abaelard's *Ethics* ends soon after this passage.

[12] *Collationes* II.100, 111. See also *Sic et non* q. 137, where Abaelard quotes various authorities both for and against the thesis that only charity should be called a virtue.

[13] The distinction between virtue *in habitu* and virtue *in usu* is found in Augustine, *De bono conjugali* 21.25–22.27. For the extension of this distinction to infant baptism see Simon of Tournai, *Institutiones in sacram paginam* 8.2.

[14] Innocent III, letter to Humbert, archbishop of Arles, in H. Denzinger (ed.) *Enchiridion symbolorum* (Freiburg: Herder, 1963) n. 780.

suggests that young Christian children have no special *habitus* that young Muslim children lack; indeed, people expose the Christian faith to ridicule in claiming otherwise (*Summa* III, ed. Emmen and Stadter, appendix to q. 2, p. 175). Olivi's critics worried that his line of reasoning might lead one to question whether even adults need God-given *habitus* of virtue. This brief excursion into sacramental theology should serve as a warning: medieval theorists often appropriate terms from ancient ethics, such as *habitus*, while extending them well beyond the naturalistic framework of ancient ethics.

Books II and III of the *Nicomachean Ethics* were translated into Latin in the twelfth century but remained little studied until the early thirteenth century, when a translation of Book I was added. When readers knew at most three books of the *Ethics*, they often drew erroneous conclusions about Aristotle's teachings. They assumed, for example, that he saw moral virtues as separable from one another, because they are acquired by different kinds of actions, and each moral virtue has a different mean lying between contrary vices. Only around 1246–8, when Robert Grosseteste's complete translation of the *Ethics* began to circulate, did readers learn Aristotle's argument that nobody can have any moral virtue without prudence, nor can someone have prudence without *all* the moral virtues.[15] Aristotle's action theory, which some scholastics thought deeply misguided, became another source of controversy. For although he has much to say about choice and even defines moral virtue as a *habitus* concerning choice, he says nothing about *free* choice, let alone about free will.[16]

From this rapid survey of issues we turn to the virtue theory articulated in part two of Aquinas's *Summa theologiae* (1268–72). A monument to system building, the theory still has many admirers today. As we will see, its reception among thinkers of the late thirteenth and fourteenth centuries was more mixed, in part because they focused on aspects now often overlooked.

AQUINAS'S THEORY

Part two of the *Summa theologiae* begins with a broad characterization of complete happiness (*beatitudo*) as the ultimate end of human life and builds gradually towards a highly specific discussion of the virtues. The first part of part two (the *Prima secundae* [1a2ae]) lays the foundations and provides an overview of the entire theory. Here Aquinas considers general questions about human acts,

[15] Early scholastic arguments about the connection of the virtues are detailed in Odon Lottin, *Psychologie et morale aux XIIe et XIIIe siècles* (Gembloux: Duculot, 1942–60) III: 195–252.

[16] Late thirteenth-century debates about freedom are discussed in Bonnie Kent, *Virtues of the Will: The Transformation of Ethics in the Late Thirteenth Century* (Washington, DC: Catholic University of America Press, 1995) ch. 3. (See also Chapter 30.)

passions, *habitus*, virtues, vices, and sins, as well as law and grace. The second part
(the *Secunda secundae* [2a2ae]) opens with more specific questions about faith,
hope, and charity – the theological virtues – before giving detailed accounts of
the four cardinal virtues. Here Aquinas casts a dazzling variety of other virtues
as "parts" of the cardinals. Only a small number of them figure as constitutive
or "integral" parts. Most are either "subjective" parts (different species of a
cardinal virtue, in the way that chastity and sobriety are different species of
temperance), or merely "potential" parts (that is, secondary virtues "annexed
to" but not essential for the cardinals).[17] Aquinas's leading authorities on the
cardinal virtues and their parts are the Church Fathers and Cicero, not Aristotle.

A close reading of the *Prima secundae* reveals two reasons why Aristotle's
teachings end up with a much smaller role than modern readers often assume.
First, Aquinas defines a *habitus* as that through which one acts when one *wills*.
Thanks to the power of will, humans can choose whether or not to act in
accordance with their *habitus*. Non-rational animals, which lack the power of
will, cannot do the same; thus, Aquinas denies that the dispositions acquired
by these animals are properly called *habitus*.[18] Second, Aquinas posits a host
of moral virtues that share the same names as Aristotelian virtues but that are
infused by grace and hence radically different in kind.

As we will see, the second move was the more controversial. With respect to
the first, most theorists of the period agreed that we can always act contrary to
the *habitus* constituting our character as so far formed. Just as the most virtuous
person on earth can still choose a morally bad act, so the most vicious person
on earth can still choose a morally good act. But because Aristotle failed to
defend this view – indeed, he even appeared to contradict it[19] – support had to
be sought elsewhere. Aquinas finds it in *dicta* by Augustine and Averroes, one
of those unlikely pairings so common in medieval works. Averroes describes
a *habitus* as that whereby one acts when one wills; Augustine describes it as
something by which one acts when there is a need. Aquinas enlists both in
order to characterize a *habitus* as a disposition that may or may not be "used"
(or exercised) by the will.[20] He diverges still farther from Aristotle's teachings

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[17] A more detailed summary of *Summa theol.* 2a is given in Stephen Pope, "Overview of the Ethics
of Thomas Aquinas," in S. J. Pope (ed.) *The Ethics of Aquinas* (Washington, DC: Georgetown
University Press, 2002) 30–53.

[18] *Summa theol.* 1a2ae 50.3.

[19] For example, in *Nic. Ethics* III.5, 1114a13–21 Aristotle argues that vicious people cannot act out of
character but that they still remain responsible for their actions. Helpful analysis of his views on this
issue is given in Susan Suavé Meyer, *Aristotle on Moral Responsibility: Character and Cause* (Oxford:
Blackwell, 1993) ch. 6.

[20] Averroes, *In De anima* III.18; Augustine, *De boni conjugali* 21, 25; Aquinas, *Summa theol.* 1a2ae 49.3,
50.5.

when he argues that only some *habitus* are acquired through the agent's own actions; others are infused by God (see below).[21] In this section of the *Prima secundae*, Aquinas works to make the concept of a *habitus* sufficiently wide and thin to support a theory comprehending both the naturally acquired virtues praised by Aristotle and the God-given virtues praised by the Church Fathers. Only when the task is complete does he turn to the definition of virtue.

The definition that Aquinas chooses to discuss comes not from Aristotle but from Peter Lombard's *Sentences*, the standard theological textbook of the period: "virtue is a good quality of the mind, by which we live rightly, of which no one makes bad use, which God works in us without us."[22] Aquinas suggests that *habitus* be substituted for 'quality' in order to make the definition more specific – a modest suggestion, given the revisions he has already made to the Aristotelian notion of a *habitus.* He accepts the thesis that nobody makes bad use of a virtue, because it does not entail that someone having a virtue is *determined* to act in accordance with it. If the agent chooses not to act in accordance with her virtue on a given occasion, then it is not that she is using the virtue badly, but that she is not using the virtue at all, and indeed may even be acting contrary to it.[23] As for the definition's last clause – "which God works in us without us" – this narrow conception of virtue as always divinely infused began losing its attractions in the late twelfth century and had already been rejected by thirteenth-century theorists before Aquinas. He himself suggests that the clause be dropped so that the definition can cover all virtues, both naturally acquired and supernaturally infused.

Aquinas's concern for a definition of 'virtue' broad enough to encompass naturally acquired virtues reveals his conviction that they can indeed be genuine virtues. At the same time, he demotes them to virtues in a relative sense, always imperfect by comparison with the perfect, unqualified virtues given by God. This brings us to the second (aforementioned) reason why Aristotle's teachings play a smaller role in Part II of the *Summa* than many modern readers assume. Aquinas includes among the God-given virtues not only theological virtues like charity but also God-given *moral* virtues infused together with charity and having the same names as Aristotelian moral virtues: infused prudence, infused justice, infused fortitude, and so on.

According to Aquinas, acquired moral virtues are directed to the imperfect happiness of this life. Infused moral virtues belong to a different

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[21] *Summa theol.* 1a2ae 51.4. See also *Summa theol.* 3a 69.7, where Aquinas argues that infants receive infused *habitus* through the grace of baptism.

[22] The definition, attributed to Augustine in *Sent.* II.27.1.1, is discussed by Aquinas in *Summa theol.* 1a2ae 55.4.

[23] Aquinas defends this position explicitly in *Summa theol.* 1a2ae 71.4.

species – essentially connected to God-given charity but not to acquired moral virtues. Whereas acquired moral virtues observe a mean established by human reason, their infused counterparts observe a mean appointed by divine law. Also, because acquired moral virtues always work to eliminate contrary passions, the agent usually takes pleasure in acting virtuously. The moral virtues infused together with charity cannot be counted on to have the same effect right away. A new convert, for example, might well feel more internal conflict and less pleasure than a virtuous pagan, though his infused virtues will give him the strength to lead a good life. Furthermore, acquired moral virtues are both developed and lost little by little. Infused moral virtues are lost through a single act of mortal sin and can be increased only by God, not by human actions.[24]

Having cast naturally acquired virtues as virtues only in a relative sense, Aquinas's discussion in the *Secunda secundae* shifts from charity to the cardinal virtues that are infused together with charity. The focus on infused moral virtues explains why the principal act of fortitude becomes martyrdom – not enduring death in battle for the sake of one's country, as a good pagan might do (see Chapter 34), but enduring death from the love of God, through faith in Christ.[25] Aquinas echoes Augustine in referring to the virtue praised by ancient philosophers as merely "civic" fortitude. Since only God-given virtues are virtues *simpliciter*, the *Secunda secundae* has little to say about naturally acquired virtues. Aquinas mentions them now and then mainly to distinguish them from the perfect, unqualified virtues that Christians have as a gift of grace.

WHY POSIT VIRTUES?

After Aquinas's death in 1274, less than a decade passed before Parisian theologians began to challenge the most distinctive aspect of his theory. Is it necessary, or even helpful, to posit infused moral virtues? Around 1281–2, Henry of Ghent rehearsed the various arguments for positing such virtues and rejected all of them as unpersuasive. According to Henry, the infused theological virtue of charity suffices to redirect naturally acquired virtues to the ultimate end. When charity elevates the end of these virtues, their targeted means change, too. Hence

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[24] For further discussion of the infused moral virtues see Bonnie Kent, "Habits and Virtues," in Pope, *The Ethics of Aquinas*, 116–30; John Inglis, "Aquinas's Replication of the Acquired Moral Virtues," *Journal of Religious Ethics* 27 (1999) 3–27; Angela McKay, "The Infused and Acquired Virtues in Aquinas' Moral Philosophy" (Ph.D. dissertation: University of Notre Dame, 2004); and Jeffery Hause, "Aquinas on the Function of Moral Virtue," *American Catholic Philosophical Quarterly* 81 (2007) 1–20.

[25] Aquinas, *Summa theol.* 2a2ae 124.2.

an action chosen by someone with the virtue of charity could look extreme to someone with only naturally acquired virtues.[26] Agreeing with Henry that infused moral virtues are superfluous, Godfrey of Fontaines raised a different objection to them. As Aristotle teaches, moral virtue moderates the passions. When one posits, as Aquinas did, infused moral virtues that do not moderate the passions, they can be called *moral* only in an improper, equivocal sense.[27]

Here we see the growing tendency to distinguish questions about moral goodness in earthly society from questions about "meriting" God's reward of eternal happiness. With accounts of moral goodness increasingly framed in naturalistic terms, and masters well schooled in Aristotle's works, virtue theory faced new challenges. For example, what should one make of Aristotle's argument that nobody can acquire prudence without all the moral virtues (*Nic. Ethics* VI.13, 1144b3–45a1)? How much of it rests on conceptual claims about necessary connections between virtues, how much on only empirical, psychological claims? Does prudence itself have an indivisible, organic unity? Or are there different prudences, each related to some specific moral virtue that might be acquired independently of others? If each moral virtue is essentially linked to the others, are they really different virtues or only different aspects of a single virtue?[28]

Soon masters started to wonder what work virtuous *habitus* actually do in ethical theory. What does a *habitus* explain that one could not explain without it? With the idea of infused moral virtues already spurned by all but the most loyal Thomists, disputes centered instead on infused theological virtues and naturally acquired moral virtues. Developing the line of argument about infant baptism suggested by Olivi, John Duns Scotus concludes that we believe only through faith that nobody attains eternal happiness without the infused *habitus* of charity. Since this virtue is itself a pure gift of grace and not a divine reward for good behavior, it cannot explain why God chooses to accept some people but not others. While Christians should believe God has ordained that nobody will be saved without charity, there is nothing about this or other infused virtues that makes them intrinsically necessary for salvation. They have the status of secondary causes that God could have, by his absolute power, chosen to dispense

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[26] Henry of Ghent, *Quodlibet* VI.12.

[27] The text of this disputed question by Godfrey on infused moral virtues is published in Lottin, *Psychologie et morale aux XIIe et XIIIe siècles*, III: 497–500.

[28] Later medieval arguments about the connection of the virtues are discussed in Marilyn McCord Adams, "Scotus and Ockham on the Connection of the Virtues," in L. Honnefelder *et al.* (eds.) *John Duns Scotus: Metaphysics and Ethics* (Leiden: Brill, 1996) 499–522, and Rega Wood, *Ockham on the Virtues* (West Lafayette, IN: Purdue University Press, 1997) ch. 4.

with. Thus, the causal role they play in salvation arises strictly from the covenant that God generously made and faithfully keeps.[29]

A fellow Franciscan, Peter Auriol, insisted that the infused virtue of charity plays a more important role in salvation. In his view, infused charity is not simply the consequence of divine acceptance but necessary by its very nature in order to make the soul acceptable to God. William of Ockham, in turn, opposed Peter's teaching on this issue and sided with Scotus. Ockham argued that infused charity is *de facto* necessary because of God's covenant but neither intrinsically nor ontologically necessary for divine acceptance. As other masters joined the fray, it developed into a free-for-all that was by no means limited to Franciscans. Durand of St. Pourçain, for instance, angered fellow Dominicans with a scathing critique of Aquinas's teachings on virtue. Not only did Durand see no reason to posit infused moral virtues, but he argued that acquired virtuous *habitus* do much less to explain moral actions than Thomists think they do.[30]

Durand's arguments on this issue were not soon forgotten. In the mid-fifteenth century, when John Capreolus produced his ambitious defense of Aquinas's theology, he did his best to prove the importance of positing virtuous *habitus*, both acquired and infused. John's recitation of arguments to the contrary begins with a great many quotations from Durand (*Defensiones* III.23.2).[31] He clearly thinks that nobody can defend Aquinas's ethical theory without proving the need to posit virtuous *habitus*. At the same time, he evinces little interest in continuing debates about what God could have done by his absolute power, or whether "Whatever God wills, just because he wills it, is right." There is no evidence in Capreolus's *Defensiones* for the idea, so common in modern histories, that "divine command theory" posed a major threat to medieval virtue theory.[32] But the dispute about positing virtuous *habitus* lasted until the sixteenth century, when Martin Luther dismissed the very idea of virtuous *habitus*, whether infused or naturally acquired, as evidence of Aristotle's baneful influence on medieval theology.[33]

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[29] *Ordinatio* I.17.1.1–2 nn.125–94, esp. 160–4.

[30] *Sent.* III.23.1–4; III.33.5. In arguing against infused moral virtues Durand repeats the charge of equivocation, but on different grounds. He suggests that virtues are called "moral" because they come from practice (*ex more*), so that virtues infused by grace can be called "moral" only in an equivocal sense.

[31] Although John treats Durand as his chief adversary on this issue, he also considers some arguments by Scotus and Peter Auriol. William of Ockham goes unmentioned.

[32] This historiographical observation is ably defended in Sigrid Müller, "The Ethics of John Capreolus and the *Nominales*," *Verbum: Analecta Neolatina* 6 (2004) 301–14.

[33] Peter Auriol, *Sent.* I.17.1.2; Ockham, *Sent.* I.17.1. The debate about positing an infused *habitus* of charity, from its origins through the works of Luther, is discussed in Alister McGrath, *Iustitia Dei: A History of the Christian Doctrine of Justification,* 3rd edn (Cambridge: Cambridge University Press, 1998) esp. pp. 59–72, 176–86.

VIRTUE AND ACTION

In the case of naturally acquired virtues, the issue is not whether one needs them to choose acts "meriting" reward in the afterlife, but whether they make one's action morally good in the earthly sense. Scotus questioned the need to posit such virtues by reflecting on the likeness principle that Aristotle appeared to endorse: moral virtues are developed by choosing like acts – temperance from choosing temperate acts, justice from choosing just acts, and so on (*Nic. Ethics* II.1).[34] If only someone with a virtuous *habitus* can choose a morally good act, Scotus argues, then how could she choose the kind of acts necessary in order to acquire the *habitus*? To avoid circularity we must grant that someone without virtue can choose a morally good act, so that virtue cannot be what makes an action good. An act is morally good because it conforms to what the agent's right reason dictates should be done, including the appropriate time and place and, above all, the end for the sake of which one should act.[35]

By "right reason" Scotus does not mean, as some of his contemporaries do, the intellectual *habitus* of prudence. "Right reason" denotes an occurrent mental state rather than a mental disposition. Most present-day virtue theorists instead favor the dispositional account of moral goodness. Supporters of the occurrent-state view protest that someone without any stable disposition to choose good actions might at times rise to the occasion, and if she does, her action is no less good than the action of someone who has such a disposition.[36] But if a virtuous *habitus* does not account for the moral goodness of the agent's action, what does it explain?

As a natural cause, Scotus argues, a virtuous *habitus* might figure in psychological explanations. It could explain why someone with such a *habitus* does morally good acts more promptly, easily, and with greater pleasure than he would otherwise. Considering two psychological roles that a *habitus* might play – as either an active but secondary cause of the will's actions or merely a non-causal inclination – Scotus argues that a *habitus* is not strictly necessary to explain the different way in which the virtuous agent acts; yet he himself opts for the first account, which assigns a larger role to the *habitus*.[37] Thus began

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[34] See also *Nic. Ethics* II.4, where Aristotle highlights the differences between actions by persons who have virtuous dispositions and actions by persons who lack such dispositions.

[35] Scotus, *Ord*. I.17.1.1–2 nn. 6–100. Owing to limits of space, I present a radically abbreviated account of Scotus's arguments on this topic. For a more detailed summary see my "Rethinking Moral Dispositions: Scotus on the Virtues," in T. Williams (ed.) *The Cambridge Companion to Duns Scotus* (Cambridge: Cambridge University Press, 2003) 352–76; see also Mary Beth Ingham and Mechthild Dreyer, *The Philosophical Vision of John Duns Scotus* (Washington, DC: Catholic University Press, 2004) ch. 7.

[36] See, for example, Thomas Hurka, "Virtuous Act, Virtuous Dispositions," *Analysis* 66 (2006) 69–76.

[37] Scotus, *Ord*. I.17.1.1–2 nn. 47–52, 69–70.

an expanding controversy over how naturally acquired virtuous *habitus* help to explain morally good actions, if indeed they do.

Did Aristotle himself teach that a virtuous *habitus* makes one's action morally good? Fourteenth-century commentators on his *Ethics* disagreed. While all labored to interpret Aristotle's work with charity, some worried more than others about circularity. For instance, Gerald of Odo argues that a right choice is impossible without right reason; right reason cannot exist without prudence; and prudence cannot exist without good moral character. Therefore, a right choice is impossible without the good moral character inseparably related to prudence (*Expositio in Ethicam* II.8). There can be no doubt that this Franciscan master of theology awards the virtuous *habitus* constituting moral character a much greater role than Scotus did. In Gerald's view, one must distinguish between the kind of choices that *generate* virtue and the kind that are an *effect* of virtue. The latter involve a firm and unchanging desire for the good, which can come only from a virtuous *habitus*. Such a desire cannot come from the power of will because the will in its own right is unlimited, just as capable of bad choices as good ones (ibid., III.13).

John Buridan, a master of arts with no degree in theology, argued for a different reading of Aristotle; and Buridan's commentary enjoyed the kind of success that few ancient specialists today even dream of. Not only did it circulate widely in later medieval manuscripts, it went on to be published in five printed editions in the early modern period, the last produced at Oxford in 1637. Buridan knew Gerald's commentary on the *Ethics* well; indeed, his own commentary borrows freely from it.[38] Yet Buridan diverges sharply from Gerald on the relation between virtuous *habitus* and morally good actions. As he interprets Aristotle, a *habitus* of the will is generated by the will's choices. A virtue of the will is generated by those choices commensurate and consonant with right reason. Aristotle's theory appears circular only because some people equate right reason with the *habitus* of prudence. Buridan explains why this is a bad mistake:

Prudence is not formally right reason, that is, right judging, just as moral virtue is not formally right choice; rather, prudence is a *habitus* determining the intellect to judging promptly and firmly about possible actions. But I do not say that such a *habitus* is necessary for judging rightly, just as I do not affirm that moral virtue is necessary for choosing rightly. Rather, from freedom of choice we are able to judge correctly and choose rightly, even if we were badly brought up, although this is exceedingly difficult.
(*Quaest. Ethic.* II.4)

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[38] Buridan's borrowings from Gerald's commentary are catalogued in James Walsh, "Some Relationships between Gerald Odo's and John Buridan's Commentaries on Aristotle's Ethics," *Franciscan Studies* 35 (1975) 237–75.

Like Scotus, Buridan defends the occurrent-state view of morally good actions, not the dispositional view. He elaborates on his position in discussing a second thesis: namely, that actions preceding and following the acquisition of a virtuous *habitus* are of the same kind (ibid., II.5). One objection to this thesis rests on the popular *dictum* that "virtue makes one's action good."[39] How, then, could acts performed before someone acquires virtue be of the same kind as those performed afterward? On the opposite side Buridan marshals arguments he considers more persuasive. One recites the likeness principle: we become just by doing just acts, temperate by doing temperate acts, and so on. Another claims that actions preceding and following the acquisition of a virtuous *habitus* differ only in "mode": someone with a virtuous *habitus* acts firmly and promptly and in other respects *well,* whereas someone without one does not.

Buridan's solution distinguishes between what good action strictly requires and what makes it easier. While a virtuous *habitus* makes good actions easier, it is not strictly necessary for them. Is it even strictly necessary in order to do good actions firmly, promptly, and in other respects *well*? It would be difficult for the will lacking a virtuous *habitus* to choose as well as the will that has one, says Buridan, and this hardly ever happens. But perhaps the will lacking a virtuous *habitus* could, through its freedom, choose as well as the will having a virtuous *habitus*, and if it did, its choice would have the same essential moral goodness. Hence Aristotle's claim that only someone with the *habitus* of justice acts justly should not be taken to mean that it is impossible for anyone else to act justly, only that this is difficult and exceedingly rare (ibid., II.5). So understood, the virtues continue to have a place in moral theory, albeit a smaller one than they did in ancient ethics.

[39] This common saying – *Virtus perficit habentem et opus eius bonum reddit* – is routinely attributed by scholastics to Aristotle. What Aristotle actually says is that virtue perfects the possessor and makes him function well (*Nic. Ethics* II.6, 1106a16–17). Both the original and the revised versions of Grosseteste's translation accordingly use the adverb *bene,* not the adjective *bonum*: "*et opus eius bene reddit.*" The popularity of the spurious *dictum* might be explained by the scholastics' tendency to rely on *florilegia*, by their use of some other translation of the *Ethics*, or both.

ACTION AND INTENTION

JEAN PORTER

Near the beginning of the second part of the *Summa theologiae*, Thomas Aquinas offers a detailed analysis of human action. This analysis presupposes that the human act has an objective, complex, and morally significant structure (see 1a2ae 18.4 ad 3), and that any adequate moral theory will give a central place to this structure. Today, even those most sympathetic to Aquinas's moral theory are likely to find these presuppositions unconvincing and the details of his analysis bewildering. Yet Aquinas was hardly alone, either in his presuppositions or in the attention he devoted to the analysis of human action. On the contrary, earlier Latin discussions contain a rich and complex debate over the moral and theological significance of the structure of the human act. The terms of this debate are complex and by no means identical to Aquinas's own. For that very reason it is worth examining in its own right, for its substantive interest and also for its continuing relevance to contemporary moral and legal philosophy. What follows represents an attempt to trace the main lines of this debate, without claiming an exhaustive treatment. Given its continuing importance, Aquinas's analysis will be given extended attention, but as will be apparent, that analysis is only fully comprehensible in the context of the preceding debate.

ACTION AND INTENTION IN EARLIER LATIN THOUGHT

The late eleventh and early twelfth centuries comprised a period of far-reaching institutional development and reform, both in the church and in civil society. In this context, long-standing questions about the meaning of sin or wrongdoing and the status of problematic actions took on new urgency.[1] Throughout the twelfth and thirteenth centuries, theologians and jurists devoted considerable attention to identifying the components of the human act in virtue of which

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[1] As Richard Southern observes, in *Scholastic Humanism and the Unification of Europe* (Oxford: Blackwell, 1995–2001) I: 145–58.

it is sinful or praiseworthy, and drawing out the practical consequences of this analysis. At the same time, the twelfth and thirteenth centuries were also marked by intense attention to the inner life of the individual and to the value and appropriate expressions of inner freedom.[2] In many respects, these tendencies arose out of the same matrix of causes and were mutually reinforcing. With respect to the questions we are considering, however, these tendencies stood in tension with one another, in such a way as to shape what became the defining issue for debates over merit and sin – that is to say, what is the relation between the exterior act, so carefully defined in institutional and legal contexts, and the inner intention, so vitally important to the life of the individual?

Contrary to what is sometimes said, from the late eleventh century onwards everyone agreed that sin must stem from something within the person. The debate then focused on just what it is within the individual that constitutes sin. According to one widely influential view originating with Anselm of Laon at this time, the motion of the soul toward sin proceeds through a series of stages, each of which after the first is itself at least potentially sinful. Although the details vary, the different versions of this "stage theory" offer a remarkably broad and comprehensive account of sin, according to which not only bad acts and intentions but even bad desires and tendencies are at least potentially sinful.[3]

In contrast, Peter Abaelard argues that only consent to an illicit act "is properly called sin, that is, a guilt of the soul through which damnation is merited, or which constitutes one as guilty before God."[4] Thus, neither vice *per se* nor spontaneous desires for illicit pleasures should be regarded as sins. Rather, sin consists solely in actual consent – that is to say, in readiness to perform the act in question as soon as the opportunity arises. This line of argument leads him on to his best-known claim, namely that the external act is in itself neutral, neither increasing nor mitigating the guilt of a sinful consent. The performance of an external act is the normal *sign* of consent, but the external act itself, like the bad desires leading up to it, does not in itself constitute sin, nor even add to the sin inherent in the consent itself.

Contrary to what is commonly supposed, Abaelard is not advocating a kind of moral subjectivism, according to which moral good and evil are wholly

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[2] As Giles Constable shows in *The Reformation of the Twelfth Century* (Cambridge: Cambridge University Press, 1996) pp. 257–93.

[3] For further details of the stage theory of sin, see Robert Blomme, *La doctrine du péché dans les écoles théologiques de la première moitié du XIIe siècle* (Louvain: Publications universitaires, 1958) pp. 3–99, and John Marenbon, *The Philosophy of Peter Abelard* (Cambridge: Cambridge University Press, 1997) pp. 253–5.

[4] *Ethics*, ed. Luscombe, pp. 4–6. For Abaelard's definition of consent, together with the claim that external acts add nothing to the guilt incurred by consent to sin, see pp. 14–15.

determined by the agent's good or bad intentions.[5] His concerns lie elsewhere; above all, he wants to safeguard the connection between sin and human freedom. Neither external acts nor bad desires count as sins, for just the same reason – that is, neither is under the agent's control.[6] On the one hand, bad desires arise spontaneously, without the agent's consent; on the other, the agent's consent to a particular act can be frustrated in all sorts of ways, including lack of opportunity and physical incapacity. Against those who would assert the moral significance of either a bad desire or a particular external act considered in itself, Abaelard insists that only the agent's consent to a particular action can count as a meritorious or sinful act. Nonetheless, it does not follow that the moral value of the act that is chosen, considered abstractly as a *kind* of performance, is determined by the agent's intent. On the contrary, the moral value of the kind of action envisioned in the agent's consent determines the moral value of the consent itself. Thus, when Abaelard distinguishes in the *Ethics* between grave and light sins, he does so in terms of distinguishing kinds of actions that are seriously wrong from those that are not. After referring to the practice of daily confession, which is meant to deal with light faults such as sins of negligence, he goes on to say that this is not an appropriate way of dealing with "damnable and more serious sins" such as murder and adultery – actions that are of such a kind as to render anyone who consents to them "execrable and very hateful" (*Ethics*, p. 70). To be sure, sin does not consist in a specific external act of murder, perjury, or adultery, but in the consent to the act in question. At the same time, the consent is gravely sinful because the act to which consent is being given is an act of a kind that is gravely wrong. Thus, even though a particular external act, considered in itself as a singular event, has no independent moral value, nonetheless, the abstract kind of action that it represents (for instance, as an act of murder) is morally significant, in a way that is not determined by the agent's consent. Abaelard's analysis of sin in terms of consent, so far from committing him to moral subjectivism, presupposes objective standards by reference to which consent is formulated and in terms of which it can be evaluated.

While the distinction between vicious tendencies and actual sin was persuasive to many, a number of theologians were troubled by the implication – whether fairly drawn or not – that external actions have no independent moral significance, apart from that bestowed by the agent's aim or motive. In order

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[5] Marenbon argues that Abaelard's moral theory presupposes an objective moral law in *The Philosophy of Peter Abelard*, pp. 265–7, but this still seems to be the minority view.

[6] I argue for this claim in more detail in "Responsibility, Passion, and Sin: A Reassessment of Abelard's *Ethics*," *Journal of Religious Ethics* 28 (2000) 367–94.

to forestall this implication, Peter Lombard drew on Augustine in support of the view that "all acts are to be judged good or evil in accordance with intention and motive, except for those that are evil, in such a way that they never can be good, even if they seem to have a good motive."[7] Subsequently, Latin theologians develop and qualify this basic point in diverse ways. A number of them develop a claim that Lombard also notes but does not endorse: namely, that just as there are some actions that are evil in themselves, so some kinds of actions are intrinsically good, in such a way that they can never be performed in such a way as to render them bad. By this point, what began as a debate over the relation between the inner states of the agent, and the external acts through which those states are exhibited, was increasingly focused on an analysis of logical and definitional questions pertaining to the description of the act, and, more specifically, to the implications of describing an act as good or bad "in kind." This tendency becomes marked in the early thirteenth century, as we will see.

EARLY THIRTEENTH-CENTURY DISCUSSIONS

By the early decades of the thirteenth century, analyses of the description of the act had become quite complex. We see a good illustration of this in the work of William of Auxerre, who distinguishes two ways in which actions can be said to be good or bad "in kind" (*in genere*) – either intrinsically (*secundum se*) and of necessity (*ex necessitate*), or else generally but not necessarily (*in se*) (*Summa aurea* III.10.4.5.1). Actions of the former kind retain the same moral value whatever the circumstances, whereas the moral value of actions of the latter kind may be altered by circumstances. And so, for example, an act of charity is, as such, necessarily good, whatever the circumstances, whereas the act of giving alms, while generally a good kind of action, may be rendered bad if done in an inappropriate way. Similarly, the anonymous author of the *Summa Duacensis* claims: "we take three kinds of goodness that we posit with respect to actions, saying something is good in accordance with its kind, and it is good from circumstances, and it is good from grace."[8]

Subsequently, a number of theologians took up the question of what it means to attribute some quality to something "in kind," *in genere*. This question, in

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[7] *Libri IV Sententiarum* II.40. Furthermore, as Lottin observes, he refers to this as a widely held view; see Odon Lottin, "Le problème de la moralité intrinsèque d'Abélard à saint Thomas d'Aquin," in *Psychologie et morale aux XIIe et XIIIe siècles* (Gembloux: Duculot, 1948–60) II: 422. In general, I rely on Lottin for the overall history and development of Latin views on the normative evaluation of the human act.

[8] As quoted in Lottin, "La moralité intrinsèque," II: 433.

turn, prompted an extended discussion of the different senses of "genus," which, as we might expect, quickly moved to a high level of abstraction. Finally, Albert the Great cut off this line of analysis, remarking that it had simply become too complicated to be helpful.[9]

It is hard not to sympathize with Albert here, but these discussions yielded at least one valuable insight (which Albert himself appropriates) – namely, that we are to understand an act that is good or bad "in kind" as an act joined to an appropriate or inappropriate matter. Of course, this way of formulating the point begs for further clarification – just what is "the act" that is joined to "due matter" in this context, and how does it relate to the act that we characterize *in genere*? Correlatively, what counts as "the matter" of the act? We do see attempts to clarify this distinction. According to an anonymous author drawing on the *Summa Duacensis*, a good act, such as feeding the poor, can only be regarded as good in light of the "conjunction of the matter to the act," since neither the matter nor the act, taken by itself, is necessarily good. It is not determined by the kind of act taken by itself – that is, feeding someone – since in that case feeding a madman would be a good act. Nor is it determined by the matter alone – that is, the poor – since in that case any treatment toward the poor would be good – for instance, it would be good to treat the poor with contempt. An appropriate conjunction of kind of action and matter is necessary if an act is to be regarded as good.[10] This helps, insofar as it clearly identifies the act with an operation, while the matter of the act is identified with whatever it is on which the operation is performed. Yet even here, the distinction between "the act" that is good in kind (feeding the hungry), and "the act" considered as an operation joined to due matter (feeding, or else showing contempt, as directed towards the poor) is unclear. Moving beyond this author, we find further unresolved issues: sometimes, the circumstances seem to be assimilated to the matter, and sometimes they are distinguished from it; similarly, the purpose or motive often seems to be incorporated into the identification of the kind of act that is in question.

I noted above that Albert sets out to simplify and clarify the issues pertaining to the moral evaluation of acts. When we turn to the *De bono*, we find that he does so by analyzing actions in terms of their appropriateness as expressions of virtues or vices; thus, for him, the conceptions of virtues and vices provide a framework for identifying kinds of acts. As he explains, the phrase "good in kind" identifies a kind of human action that "is ordered more to one contrary, that is to the good of virtue"; correspondingly, an act that is evil in kind "inclines more towards vice" (*De bono* I.2.4). Thus, as he explains in response

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[9] As Lottin observes, ibid., II: 451.   [10] The relevant text is quoted ibid., II: 437.

to objections, "good in kind" does not stem from any circumstances whatever, but only from those that establish a kind of virtue, and correlatively the species of an act is determined by reference to the kind of virtue that it represents. He goes on to say that some kinds of acts are good only if they incorporate appropriate circumstances:

[T]here are many voluntary acts that can in no way attain the due proportion to the matter in themselves, but only clothed in circumstances, such as to have sexual relations, to kill, and others of this kind . . . If we say, "to kill one who ought to be killed," or, "to have sexual relations with one's wife," the phrases 'ought to be killed' or 'one's wife' bring in circumstances through which the act itself is ascribed to a particular virtue – namely, to justice or to conjugal chastity.

(*De bono* I.2.4 ad 7)

Albert thus simplifies the earlier discussion by tying the analysis and identification of kinds of actions explicitly to moral evaluations, more specifically to our conceptions of virtues and vices. This is an elegant move that allows him to cut through much of the confusion of earlier lines of analysis. At the same time, however, Albert's analysis does not fully resolve the ambiguities noted in earlier authors. He claims that one's sexual partner or victim cannot be said to be the matter of an act of sexual intercourse or killing, to which the act stands (or fails to stand) in due proportion (ibid.). But what then is the matter of these acts? He does not seem to say. What is more, the category of acts "prone to" moral good or evil – acts that are likely to be virtuous unless corrupted, or vicious unless redeemed – calls for further explication. What is it about these kinds of actions that inclines them to be good or evil, prior to their further specification by circumstances? Albert seems to assume that certain kinds of operations (such as sexual intercourse and killing) are at least problematic, if not always prohibited – but his views at this point are not entirely clear.

ACTION AND INTENTION IN AQUINAS

The ambiguities just described help to explain why Aquinas complicates what Albert simplified, even as he builds on Albert's key insight. Aquinas frames his analysis of the human act in terms of his metaphysics and his theory of the will, in such a way as to develop a set of criteria for distinguishing the different components of the act and explaining how they fit together in moral evaluation. At the same time, his analysis allows him to address a further set of issues that recede in Albert's account, but that are nonetheless central to discussions of the human act up to Albert's time – namely, the relation between the exterior act and the interior act of the will from which it stems.

Aquinas's analysis of the components of the human act in *Summa theologiae* 1a2ae 18–20 occurs within the context of a wider discussion of actions, including both distinctively human acts and those kinds of acts that we share with other animals. He begins by framing issues relating to the formation of human acts in terms of their most general characteristic, that is to say, their quality as voluntary or involuntary acts stemming (or failing to stem) from the distinctively human rational appetite (1a2ae 6). This leads him to consider circumstances that, as he explains, are relevant to theology because they qualify the overall evaluation of an act even though they remain external to its substance (1a2ae 7.1, 2). He goes on to consider acts of the will – both those acts immediately elicited by the will (1a2ae 8–16) and those acts commanded by the will, that is to say, carried out through the other faculties and organs of the body (1a2ae 17). At this point, Aquinas turns to the considerations in terms of which acts are judged to be morally good or evil. 1a2ae 18 is devoted to an analysis of the goodness and evil of human actions generally considered, after which Aquinas takes up the goodness or evil of interior and external acts (1a2ae 19–20). In 1a2ae 18, he identifies the relevant respects in which an action must be good if the act taken as a whole is to be morally good – namely, the object of the act (1a2ae 18.2), its circumstances (1a2ae 18.3), and the end towards which it is directed (1a2ae 18.4). Defect or deformity with respect to any of these vitiates the moral quality of the action; for example, an act that is bad in kind cannot be redeemed by the agent's good intention.

This analysis is recognizably an intervention in the ongoing debates over the proper analysis of human acts. At the same time, Aquinas's language is distinctive – particularly, his use of the terms "object" and "end" – and this distinctive usage reflects something more fundamental about his overall approach. More clearly than his predecessors had done, he considers the human action as an event, constituted by a causal operation through which the agent brings about a state of affairs (or at least, attempts to do so) regarded by him as being in some way good or desirable (see 1a2ae 1.3).[11] Although the complexity of his analysis can obscure this point, Aquinas consistently maintains that the human action is a unitary reality, which for that very reason can be described in both moral and non-moral terms (1a2ae 1.3 ad 3). The non-moral descriptions of the act may capture considerations in virtue of which that act is either desirable or repugnant, even apart from a final judgment on its moral value. This move enables him to capture the intuition, expressed in different ways by William of

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[11] I argue for this point in more detail in *Nature as Reason: A Thomistic Theory of the Natural Law* (Grand Rapids, MI: Eerdmans, 2005) pp. 274–308; in addition, see Stephen Brock's excellent *Action and Conduct: Thomas Aquinas and the Theory of Action* (Edinburgh: T&T Clark, 1998), to which I am indebted throughout this section.

Auxerre and Albert (among others), that some kinds of actions are especially morally salient, even though their moral value considered as such is indeterminate. An act of killing, for example, is always morally significant, but a particular act of killing may be either a praiseworthy act of justice or a sinful act of murder.

In this way, Aquinas's analysis represents an advance in analytic clarity. At the same time, however, his most distinctive contribution to the analysis of human actions depends on his metaphysics and philosophy of nature, rather than on free-standing conceptual or logical analysis. More specifically, the key to understanding what is distinctive about Aquinas's account lies in his analysis of the object of an act, understood in terms of whatever considerations define the act as a representative of a general kind (to give alms, to murder, and so on).[12] Hence, the goodness or evil deriving from the object of the act is equivalent to what Aquinas's interlocutors describe as goodness or evil *ex genere*, as he explicitly notes (1a2ae 18.4). This is not just a terminological change. Aquinas speaks in terms of the object of an action because, as he explains in his commentary on Aristotle's *De anima*, every act or operation derives its species – is defined as the kind of operation that it is – in terms of its characteristic object. The objects of the passive powers of the soul (such as sensation) are defined in terms of whatever it is that engages these powers (as, for example, the visible engages the power of sight). He continues, "The objects of the active powers are their operations. Moreover, it is plain that, with respect to any of these, besides the operations there are things done through the operations, which are the ends of the operations, as is said in the first book of the *Ethics* – as for example, the house that is built is the end of building" (II.6.305). The object of the act is thus an operation, rather than the target or terminus of the agent's activity. To return to the example mentioned above, the object of the act of feeding the poor is the act of feeding, considered (and chosen by the agent) as an act of feeding understood as a way of giving sustenance to someone in need.

We can now begin to see how the diverse elements of the human act fit together on Aquinas's account. The first point to keep in mind is that, for Aquinas, the human act is a unitary reality – that is, an event establishing a relation between the agent's exercise of causal efficacy and the terminus of that exercise.[13] The distinctions set forth in 1a2ae 18 provide the terms necessary to analyze an action as a unitary whole, taking account both of the operation that is the terminus of the agent's immediate choice – this is the object – and

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[12] This is true generally speaking, at any rate, but Aquinas's position is complex and seems to have changed over time. For details, see Joseph Pilsner, *The Specification of Human Actions in St. Thomas Aquinas* (Oxford: Oxford University Press, 2006) pp. 70–140.

[13] On the individuation of actions thus understood, see Brock, *Action and Conduct*, pp. 49–93.

the state of affairs in view of which the agent chooses – namely, the end (1a2ae 18.2, 4). We must also take account of circumstances because these qualify the agent's overall choice, even though by definition they do not determine the rational structure of the act (1a2ae 18.3).

The role of circumstances should be underscored. Unlike his interlocutors, Aquinas distinguishes between those aspects of a particular act that constitute its object and those that are truly circumstantial (1a2ae 18.10, 11). The point is not that one set of considerations is morally relevant, whereas another is not – on the contrary, Aquinas insists that circumstances do affect the moral evaluation of particular acts (1a2ae 7.2, 18.3). Yet he distinguishes between these two sorts of considerations on the grounds that only some of them have a direct and independent bearing on the kind of action that one is performing, seen from a moral standpoint; others, circumstances properly so called, derive their normative significance from the overall context of a particular act (1a2ae 18.11). So, for example, although location generally has no distinctive moral significance taken by itself, the sinfulness of an act of fornication would be aggravated by being done out in the streets, since this circumstance would reflect a shameless disregard for the feelings of others and an indifference to scandal. Thus, the considerations determining the object and those considerations setting the circumstances work together to (partially) determine the goodness of the will choosing them – but in two distinct ways, following on their distinctive significance as discerned by reason.

In *Summa theologiae* 1a2ae 19, Aquinas adapts these distinctions in such a way as to account for the distinctive features of the inner act of the will, namely, its choice of a particular act. The discussion here is notoriously problematic. Aquinas begins with the claim that the goodness of the will depends entirely on its object (1a2ae 19.1, 2). As he explains, "the end is the object of the will, and not of the other powers. Thus with respect to the act of the will, there is no difference between the goodness deriving from the object and that deriving from the end, as there is with respect to the acts of the other powers" (1a2ae 19.2 ad 1). But in that case, what becomes of the distinction between object and end so carefully delineated at 1a2ae 18.7? Similarly, the circumstances are assimilated into the object of the interior act of the will – at least, insofar as the agent is aware of the relevant circumstances – in such a way that they qualify what he voluntarily does (1a2ae 19.2 ad 2). It appears that Aquinas is disregarding the carefully drawn distinctions between object, end, and circumstances set forth in 1a2ae 18.

This inconsistency, however, is only apparent. Aquinas's conception of the act as a unified event allows him to distinguish between the interior act of the will and the external act, while maintaining that these are in reality two

components of one and the same action (1a2ae 20.3). For this very reason, the terms of analysis set forth in 1a2ae 18 can be applied in different ways to the descriptions of the act considered as an interior act of will and considered as an external performance. What is at stake are two different analytic descriptions of the same action, which track the relevant considerations from two different vantage points. Considered as an operation of the soul, the interior act of the soul is identified in terms of the object of the agent's choice, which is constituted by the concrete act proposed by reason as good and worth pursuing here and now (1a2ae 19.1 ad 3, 19.3). As such, the object of the interior act must be considered globally, as a concrete whole encompassing everything that the agent knowingly chooses – this particular act, chosen in these circumstances as a means to or constituent aspect of this further end. That is why Aquinas says that the goodness of the interior act of the will is determined by the object alone. The object in *this* context is nothing other than the particular, fully determinate action that is chosen; therefore, all the components of the act considered as a whole must be considered in this context as complex determinates of one specific choice (1a2ae 19.2, esp. ad 1). We see here an application of the general point that the operations of the active powers of the soul can be defined in reference to the end, as well as in terms of the operation itself. Nonetheless, these distinctions presuppose a more comprehensive analysis of human action, considered in its integral reality as an event (the external act) relating the agent who chooses to the chosen state of affairs.

The complex character of Aquinas's account becomes still more apparent when we turn to the next question (1a2ae 20), which considers the morality of the external act. In the first article of this question, Aquinas explicitly poses the question running through the whole debate over merit and sin: are good and evil in human actions constituted fundamentally by the inner act of the will, or by the external act? Aquinas replies that it depends. Insofar as the goodness or evil of a particular act stems from the end for which the agent acts, these do depend on the will, and in this respect the goodness of the external act is dependent on the goodness or evil of the interior act of the will. At the same time, "the goodness or evil that an external act has in itself, on account of due matter and due circumstances, is not derived from the will, but rather from reason" (1a2ae 20.1). Yet in another sense, the goodness of the external action adds to, and indeed partially determines, the good of the interior act of the will, precisely because it provides the will with its "terminus and end," and thus, "it adds to the goodness or badness of the will; because every inclination or motion is perfected in this, that it achieves its end or attains its terminus" (1a2ae 20.4). The external act thus stands in the same relation to the inner act as reason, generally considered, stands to the will – or, more precisely, the relation between

external and inner act is one expression of the overall relation between reason and will. Considered as a kind of act with an intelligible structure, the external act has a moral significance of its own that determines the sinfulness or merit of the agent choosing it – that is to say, the agent's will in choosing is informed by her rational grasp that this (particular) act has the rational structure and significance it does as an act of a specific kind, with a determinate object. Thus, the external act, considered as a representative of a kind, can inform the inner act of the choosing will because it has a rational structure (of appropriateness or equity or their opposites) that can be discerned by reason.

It was suggested above that this is what Abaelard too was driving at. Yet it is difficult to imagine Abaelard saying point blank that the external act determines the goodness or evil of the agent's consent. The fact that Aquinas can say this, without denying that a particular act has moral significance only insofar as it is voluntary, reflects both the complexity of the intervening debates and the distinctive character of Aquinas's intervention in these debates.

THE CARE OF SOULS AND
"PRACTICAL ETHICS"[1]

M. W. F. STONE

Despite the vast amount of attention that medieval ethics has received, there has been comparatively little scrutiny of what might be called "practical ethics." A significant proportion of medieval ideas about the scope and point of human conduct is not to be discovered in works of "moral philosophy" (at least as we may understand that term), but is more likely to be found in a treatise of canon law, or a work concerning the practice of confession, or a didactic moral treatise written for the instruction of the clergy or laity. The literary genre of "pastoral writings" to which these texts belong[2] also includes treatises on vices and virtues, as well as collections of popular sermons and discussions of the seven sins. Although this much larger body of literature might lack the abstract precision that we rightly associate with the efforts of medieval thinkers who commented on Aristotle's *Nicomachean Ethics*, it is replete with novel insights and sobering reflections about the care and guidance of the human soul. These materials can be combined with a further body of texts that includes quodlibetal disputes focused upon the topical moral issues of the day,[3] and also

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[1] For Leonard E. Boyle O.P. (1923–99). *Ar dheis Dé go raibh a anam.*

[2] The work of Leonard Boyle did more than most to open up the field of *pastoralia* to generations of medievalists. See the papers collected in *Pastoral Care, Clerical Education and Canon Law, 1200–1400* (London: Variorum, 1981), as well as "*Summae confessorum,*" in R. Bultot (ed.) *Les genres littéraires dans les sources théologiques et philosophiques médiévales: définition, critique et exploration* (Louvain-la-Neuve: Université catholique de Louvain, 1982) 227–37; "The Fourth Lateran Council and Manuals of Popular Theology," in T. J. Hefferman (ed.) *The Popular Literature of Medieval England* (Knoxville: University of Tennessee Press, 1985) 30–43; and "The Inter-Conciliar Period 1179–1215 and the Beginnings of Pastoral Manuals," in F. Liotta (ed.) *Miscellanea, Rolando Bandinelli, Papa Alessandro III* (Siena: Accademia senese degli intronati, 1986) 45–56. See also Joseph Goering, *William de Montibus (c. 1140–1213): The Schools and the Literature of Pastoral Care* (Toronto: Pontifical Institute of Medieval Studies, 1992) pp. 58–102.

[3] On the quodlibets see Palémon Glorieux, *La littérature quodlibétique de 1260 à 1320* (Paris: Vrin, 1925–35); Amedeus Teetaert, "La littérature quodlibetique," *Ephemerides theologiae Lovanienses* 14 (1937) 77–105. All earlier work has now been superseded by two state-of-the-art volumes edited by Christopher Schabel: *Theological Quodlibeta in the Middle Ages* (Leiden: Brill, 2006–7).

the lengthy discussions of social problems,[4] conscience,[5] usury,[6] economic life,[7] population,[8] suicide,[9] human sexuality,[10] contraception,[11] marriage,[12] lying and other sins of the tongue[13] that are present in literally hundreds of theological disputations and in commentaries on Lombard's *Sentences*. When we take all of this together, we can appreciate the extent to which the practical as well as the speculative scrutiny of ethical issues was a marked feature of medieval intellectual life.

This chapter offers a general description of the casuistical character of canon law, as well as the pastoral outlook of medieval preaching, the literature on vices and virtues, and confession. Although far from comprehensive as a survey, it attempts to demonstrate that medieval thought about moral practice was a much more synoptic phenomenon than is countenanced by current philosophical scholarship, and that interesting ideas about how ethical norms can be applied to human action are to be found in these diverse sources. Yet despite sharing a quite basic interest in the more concrete dimensions of ethical inquiry, medieval

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[4] See Georges de Lagarde, *La naissance de l'espirit laïque au declin du moyen âge* (Louvain: Nauwelaerts, 1956–70) esp. vol. II; and Elsa Marmursztejn, *L'autorité des maîtres: scolastique, normes et société au xiie siècle* (Paris: Les Belles Lettres, 2007).

[5] The primary texts related to conscience are collected in Odon Lottin, *Psychologie et morale aux XIIe et XIIIe siècles* (Gembloux: Duculot, 1948–60), esp. vol. II.

[6] See John T. Noonan, *The Scholastic Analysis of Usury* (Cambridge, MA: Harvard University Press, 1957); and Odd Langholm, *The Aristotelian Analysis of Usury* (New York: Columbia University Press, 1984).

[7] On this subject see three important books by Odd Langholm: *Wealth and Money in the Aristotelian Tradition* (New York: Columbia University Press, 1983); *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition 1200–1350* (Leiden: Brill, 1992); and *The Legacy of Scholasticism in Economic Thought: Antecedents of Choice and Power* (Cambridge: Cambridge University Press, 1998).

[8] See Peter Biller, *The Measure of Multitude: Population in Medieval Thought* (Oxford: Oxford University Press, 2000).

[9] On this see Alexander Murray, *Suicide in the Middle Ages* (Oxford: Oxford University Press, 1998–2002).

[10] For a sober and scholarly discussion of this most complicated of topics see James A. Brundage, *Law, Sex, and Christian Society in Medieval Europe* (Chicago: University of Chicago Press, 1987); and Pierre J. Payer, *The Bridling of Desire: Views of Sex in the Later Middle Ages* (Toronto: University of Toronto Press, 1993).

[11] See John T. Noonan, *Contraception: A History of its Treatment by the Catholic Theologians and Canonists* (Cambridge, MA: Harvard University Press, 1965).

[12] See Jean Gaudemet, *Le mariage en Occident: les mœurs et le droit* (Paris: Cerf, 1987); Christopher N. L. Brooke, *The Medieval Idea of Marriage* (Oxford: Oxford University Press, 1989); Philip L. Reynolds, *Marriage in the Western Church: The Christianization of Marriage during the Patristic and Early Medieval Periods* (Leiden: Brill, 1994); and D. L. d'Avray, *Medieval Marriage: Symbolism and Society* (Oxford: Oxford University Press, 2005).

[13] See Carla Casagrande and Silvana Vecchio, *I peccati della lingua: disciplina ed etica della parola nella cultura medievale* (Rome: Istituto della Enciclopedia Italiana, 1987); and my "In the Shadow of Augustine: The Scholastic Debate on Lying from Robert Grosseteste to Gabriel Biel," in J. A. Aertsen and M. Pickavé (eds.) *Herbst des Mittelalters? Fragen zur Bewertung des 14. und 15. Jahrhunderts* (Berlin: De Gruyter, 2004) 277–317.

thinkers were engaged in an intellectual enterprise that cannot be compared usefully to that of contemporary applied ethics. The care and guidance of souls was a quite different activity, predicated on a wholly different set of theological aims and objectives.

CANON LAW AND EQUITY

Among other tasks, canon law was concerned with the analysis of the views of "authorities" (*auctoritates*) regarding specific practical questions (*casus*), as derived from the decrees of ecumenical and local church councils, epistles of various popes and bishops, diocesan statutes and ordinances, as well as from the diverse pronouncements of the Church Fathers and other ecclesiastical texts. Since sources such as these could be highly specific both in their provenance and content, producing at times a wide variety of incompatible precedents, the task of the canonist was to pick out, in the midst of this welter of conflicting advice, what was salient to each particular case in accordance with the teaching of the church and the demands of natural justice. The chief collection of canon law during the later Middle Ages was the *Decretum*, a collection of canons of church councils and decrees of popes, put together at Bologna during the fourth decade of the twelfth century, primarily by an individual known as Gratian.[14] One example of a problem from the *Decretum* can suffice to illustrate the methods used by the canonists:

A certain bishop makes a statement on oath that turns out to be false, though he thought it true. When the apparent perjury is made known, his archdeacon swears he will never obey the bishop again. The bishop compels the archdeacon to obedience, and is accused of perjury on two counts: as a principal for his original false statement on oath; and as an accessory, for compelling the archdeacon to break his oath.

(II C. 22, ed. Richter and Friedberg, I: 860)

The question posed is this: "To what extent is the bishop guilty on either of these counts?" The solution proposed by the text (ibid., *quaest.* I–V) need not detain us, since what is more relevant to our argument is the method used in

[14] See Stefen Kuttner, "Graziano: L'uomo e l'opera," *Studia Gratiana* 1 (1953) 17–29; Andrea Lazzarini, "Gratianus de Urbeveteri," *Studia Gratiana*, 4 (1956) 1–15; John Noonan, "Gratian Slept Here: The Changing Identity of the Father of the Systematic Study of Canon Law," *Traditio* 35 (1979) 145–72; and Anders Winroth, *The Making of Gratian's Decretum* (Cambridge: Cambridge University Press, 2000) pp. 1–33. On the composition of canon law with reference to works both before and after the *Decretum*, see Gabriel Le Bras and Jean Gaudemet, *Histoire du droit et des institutions de l'Église en Occident* (Paris: Cujas, 1955–8) I: 22–159; Charles Duggan, *Twelfth Century Decretal Collections* (London: Athlone Press, 1963); and Gérard Fransen, *Décrétales et les collections de décrétales* (Turnhout: Brepols, 1972).

order to arrive at a resolution of the case – namely, a procedure that identifies all the known features of the case, together with the claims they make on the agent. In this manner, the *Decretum* deems that the business of canon law is to approximate, as far as possible, the verdicts of informed judgment, where these are understood as the pronouncements of reputable *auctoritates*. The way canonists like Gratian aimed to arrive at a solution to the problems raised by a case was by assembling all the divergent sources so that a just interpretation could be facilitated and the different recommendations of the *auctoritates* assessed and eventually harmonized.[15]

Instruction in medieval law faculties was conducted almost exclusively by means of a dialectical analysis of texts. This method followed the structure and organization of a particular work and aimed to explain the meaning and application of each sentence and paragraph of that text, commencing at the beginning and proceeding systematically to the end. Odofredus da Ponte (d. after 1337),[16] a teacher of civil law from around the start of the fourteenth century, described for his students the standard method of analyzing a legal text:

First, I shall give you the summaries of each title before I come to the text. Secondly, I shall advance well and distinctly and in the best terms available to me, the meaning of each law. Thirdly, I shall read the text in order to correct it. Fourthly, I shall briefly restate the meaning. Fifthly, I shall resolve any conflicts, adding general points of interest (which are commonly called *brocardica*) and subtle and useful distinctions and questions with the solution, so far as Divine Providence shall assist me. And if any law is deserving of a review by reason of its fame, or difficulty, I shall reserve it for an afternoon review session.[17]

The available evidence suggests that teachers of canon law followed a style of lecturing that was nearly identical to this.[18] The art of analyzing a case by first dissecting its evident features and hounding its minutiae, and then seeking to specify an existing precedent in the light of this careful consideration, was to have a lasting influence on medieval moral practice, and would foster the importance of detailed discernment in later forms of casuistical reasoning.

The formal requirement that any student in the theological faculty must comment on the four books of *Sentences* by Peter Lombard afforded those thinkers

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[15] See Richard Southern, *Scholastic Humanism and the Unification of Europe: Foundations* (Oxford: Blackwell, 1995) pp. 305–10, and Winroth, *Making of Gratian's Decretum*, pp. 9–11.

[16] For a discussion of Odofredus see Johann Friedrich von Schulte, *Geschichte der Quellen und Literatur des canonischen Rechts* (Stuttgart: Enke, 1875–80; repr. Graz: Akademische Druck, 1956) II: 232–33; and Friedrich Carl von Savigny, *Geschichte des römischen Rechts im Mittelalter* 2nd edn (Heidelberg: Mohr, 1834–51) III: 236–48, 393–9, V: 323–44.

[17] The text containing Odofredus's statement can be found in von Savigny, *Geschichte des römischen Rechts* III: 511 n. 29.

[18] See for instance Hostiensius, *Summa aurea* 5; *De magistris* sec. 6.

with a prior expertise in canon law an opportunity to consider a wide range of practical issues. Book IV of Lombard's great work of synthesis concerns the sacraments (baptism, penance, communion, confirmation, marriage, extreme unction, and holy orders),[19] a subject to which canon lawyers had much to contribute. In many thirteenth-century commentaries on Book IV, we find pertinent discussions of the sacraments that are not only informed by canon law, but also guided by a concern to make canonical precepts applicable to the needs of human life.[20]

By the fourteenth century, the study of canon law had established itself as one of the main disciplines in which substantive moral debates took place. This last claim can be illustrated by consulting the work of Peter of Palude, a Dominican friar of aristocratic birth who distinguished himself through his formidable prowess as a legal theorist. In the prologue to his *Sentences* commentary (3.5.1), he compares the value of canon law to theology with that of naval astronomy to pure astronomy. Unlike the divine science of theology, which is based on divine revelation, canon law – the product of human reason – is nevertheless a worthwhile ancillary subject in much the same way that naval astronomy is a practical application of pure astronomy.[21]

In his comments on Book IV, Peter goes on to discuss a wide range of moral subjects so as to prove his claim that canon law is a practically efficacious discipline. One such is his treatment of the rather daunting question of whether heretics should be "exterminated" (13.3 [ed. 1514, ff. 56v–57r]). For Peter, this is an issue that can be settled by canon law. He reaffirms the standard canonical doctrine that recidivist heretics are to be handed over to the secular authorities as soon as it is possible to do so, lest they continue to proselytize their heresy. If heretics are not caught actively preaching their "poison," they can nevertheless be convicted by the testimony of reliable witnesses or else by their own confessions. Significantly, Peter adds that confessions extracted through torture or fear of torture do not always inspire confidence or secure convictions, and should be avoided where possible. In addition, he was adamant that the punishment of any convicted heretic should always be commensurate with the gravity of their offense (ibid., f. 57r).

A further indication of the extent to which medieval moral thought was shaped by the methods of canon law can be illustrated by examining the notion

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[19] For a detailed discussion of Lombard's position on the individual sacraments see Marcia Colish, *Peter Lombard* (Leiden: Brill, 1994) II: 517–697.

[20] See G. R. Evans (ed.) *Mediaeval Commentaries on the Sentences of Peter Lombard* (Leiden: Brill, 2002).

[21] Cited by Guiseppe Groppo, "La teologia e il suo 'subiectum' secundo il prologo del commento alle sentenze di Pietro de Palude, O.P. († 1342)," *Salesianum* 23 (1961) p. 261.

of *aequitas canonica*.[22] This idea was fashioned from two different sources by which the notion of equity had come down to medieval Europe: the doctrine of *aequitas* as it had been set out in the tradition of Roman law, and the Aristotelian virtue of *epieikeia* (equity or fairness), both of which were altered by coming into contact with the Christian concept of mercy (*misericordia*). The union of these ideas would provide later medieval writers with a coherent framework in which they could explain how and why the law should, in certain circumstances, be corrected due to its inherent deficiencies, and when it ought to pay heed to the requirements of natural justice and compassion.

A notable storehouse of canonical thinking on *aequitas* can be found in the thirteenth-century *Summa aurea* of Hostiensis. According to Hostiensis, justice must always be tempered by compassion and administered in a humane manner. While a judge is not free to alter at will statutory penalties clearly enacted by the law, he does have greater freedom where no such legal limitations exist, and in these cases, Hostiensis urges him always to observe equity and adopt the course that will prove to be more kindhearted in the circumstances.[23] Thus the judge should exercise compassion, even when he has to inflict punishment.[24] The need to temper justice with compassion is a theme that runs throughout the *Summa aurea*.[25]

The other main source from which medieval writers fashioned their notion of *aequitas canonica* was Aristotle's virtue of *epieikeia*, discussed in *Nicomachean Ethics* V.10 – a concept that they believed resembled *aequitas* in its stress on humaneness.[26] Robert Grosseteste, the first Latin translator of the *Nicomachean Ethics*, was foremost among those in the thirteenth century who appreciated the importance of Aristotle's concept of *epieikeia*, even to the extent of bringing it to the attention of the papal curia at Lyons in 1250.[27] Other important sources

[22] A detailed discussion of this concept, with full references to primary sources, can be found in Eugen Wohlhaupter, *Aequitas Canonica: eine studie aus dem kanonischen Recht* (Paderborn: Schöningh, 1931); Charles Lefebvre, *Les pouvoirs du juge en droit canonique* (Paris: Sirey, 1938); and Pio Fedele, "Aequitas Canonica," *Apollinaris* 51 (1978) 415–38.

[23] *Summa aurea* I; *De officio ordinarii*, n. 4.

[24] Compare Hostiensis, *In I–VI Decretalium libros commentaria* D. 45 c. 15.

[25] For further discussion of this point see Charles Lefebvre, "'Aequitas canonica' et 'periculum animae' dans la doctrine de l'Hostiensis," *Ephemerides Iuris Canonici* 8 (1952) 305–21.

[26] For more details on the concept of *epieikeia* see Charles Lefebvre, "Épikie," in R. Naz (ed.) *Dictionnaire du droit canonique* (Paris: Letouzey et Ané, 1935–65) V: 364–75; R. A. Coutre, "The Use of Epikeia in Natural Law: Its Early Developments," *Église et Théologie* 4 (1973) 71–93.

[27] See Richard Southern, *Robert Grosseteste: The Growth of an English Mind in Medieval Europe*, 2nd edn (Oxford: Clarendon Press, 1992) pp. 279–91; and Joseph Goering, "Robert Grosseteste at the Papal Curia," in J. Brown and W. Stoneman (eds.) *A Distinct Voice: Medieval Studies in Honor of Leonard E. Boyle O.P.* (Notre Dame, IN: University of Notre Dame Press, 1997) 253–76. See also S. Harrison Thomson, "The 'Notule' of Grosseteste on the Nicomachean Ethics," *Proceedings of the British Academy* 19 (1934) 3–26.

for thirteenth-century reflections about equity[28] include the work of Albert the Great and Thomas Aquinas.[29] For Thomas, equity or *aequitas* is both a formal mechanism that supplements and corrects the letter of the law (*correctio legis*), and a virtue that addresses the needs and circumstances of hard-pressed agents from the perspective of natural justice and compassion. Seen thus, *aequitas* is a *mitigatio juris*.[30]

PREACHING

In societies where large numbers of people were illiterate, sermons were an important means by which both laity and clergy received moral and spiritual instruction.[31] The duties of any priest included preaching, which meant not only exhorting those in his pastoral care to steady moral improvement but also involved instructing his charges in the rudimentary tenets of the Christian faith. At the parochial level this would often express itself in the preaching of catechetical formulas like the Creed, the seven works of Corporal Mercy, the Seven Sins, and behind them all, the Christian Scriptures. The significance of such preaching was recognized by all levels of the clergy: from the semi-literate priests who ministered to rural parishes to the intellectually capable friars and seculars who inhabited the universities, towns, and cities, preaching was understood as an indispensable part of the practice and promotion of the Christian religion.[32]

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[28] For further discussion of the role of equity in thirteenth-century thought see Pier Giovanni Caron, "Aequitas romana, 'Misericordia' patristica e 'Epicheia' aristotelica nella dottrina decretalistica del Duecento e Trecento," *Studia Gratiana* 14 (1967) 309–47, and "Aequitas et interpretatio dans la doctrine canonique aux XIIIe et XIVe siècles," in S. Kuttner (ed.) *Proceedings of the Third International Congress of Medieval Canon Law* (Vatican: Biblioteca Apostolica Vaticana, 1971) 131–41. For a corrective to Caron's interpretation see my "Equity and Moderation: The Reception and Uses of Aristotle's Doctrine of EΠIEIKEIA in Thirteenth-Century Ethics," *Documenti e studi sulla tradizione filosofica medievale* 17 (2006) 121–56.

[29] For discussion of Albert's and Thomas's doctrine of equity see Stone, "Equity and Moderation," with references to other commentators.

[30] Thomas's moral views influenced a whole generation of canonists, such as Guido de Baysio, who used the Angelic Doctor's work in his *Rosarium super decreto*. See, e.g., Guido's use of *aequitas* (ad dist. 45 c. 9, as cited by Alphonse Van Hove, *Commentarium Lovaniense in codicem iuris canonici*, 2nd edn [Mechelen: Dessain, 1930] I.ii: 280 n. 2).

[31] The importance of preaching for the study of medieval life in general, and for medieval moral thought in particular, is clearly spelt out by John W. O'Malley, "Medieval Preaching," in T. L. Amos *et al.* (eds.) *De Ore Domini: Preacher and Word in the Middle Ages* (Kalamazoo, MI: Medieval Institute, 1989) 1–13.

[32] For a general history of preaching in the Christian tradition see Johannes Baptist Schneyer, *Geschichte der katholischen Predigt* (Freiburg: Seelsorge, 1969); Werner Schütz, *Geschichte der christliche Predigt* (Berlin: De Gruyter, 1972).

A work that advanced the case for popular preaching during this period was the *Ars praedicandi* of Alan of Lille.[33] He was of the view that preaching could be "most dangerous" (*periculosissimum*) if left to the auspices of an uneducated clergy, since such persons would not know what should be preached, nor to whom, nor how and when and where preaching should be done.[34] That is why ignorant clergy and their poorly educated flocks were in need of sound moral guidance. Alan compares the work of the preacher to Jacob's ladder.[35] There are seven steps one must follow to learn the art of preaching, the first three of which concern prayer. One begins with confession, advances to supplication, and ends in thanksgiving. That preaching is the fruit of prayer is to be observed in this remark:

> It is in turning away from sin that man ought first to put his foot on the ladder of confessing sin; then to ascend to the second rung of the ladder he prays to the Lord that grace be conferred on him, then to the third rung he continues by giving thanks for the grace that he has been given.
>
> (*Summa contra haereticos* [*Patr. Lat.* 210: 111])

The fourth rung of the ladder is an intensive study of the Scriptures. Such study is to be prayerful and yet genuinely critical. Problems of interpretation should be addressed, and one requires the fifth step – grace – to tackle such problems in a spirit of intellectual charity and openness. Grace is assuredly given, Alan thinks, for resolving those difficulties that are germane to any faithful analysis of Scripture. Divine grace finds further expression in the many guides to Scripture that the preacher can utilize in his studies. These aids include biblical commentaries, lexicons of different sorts, mathematical and etymological works, geographical treatises that explain the terrain of the Holy Land, and also works of the natural sciences that classify and explain the exotic plants and animals that are mentioned in the Scriptures.[36] The sixth rung in

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[33] For a discussion of the *Ars praedicandi* and other related issues see Marie-Thérèse d'Alverny's introduction to Alan of Lille's *Textes inédits* (Paris: Vrin, 1965) pp. 109–19; Michel Zink, "La rhétorique honteuse et la convention du sermon *ad status* à travers la *summa de arte praedicatoria* d'Alan de Lille," in H. Roussel and F. Suard (eds.) *Alain de Lille, Gautier de Châtillon, Jakemart Giélée et leur temps* (Lille: Presses universitaires de Lille, 1978) 133–70; and G. R. Evans, *Alan of Lille: The Frontiers of Theology in the Later Twelfth Century* (Cambridge: Cambridge University Press, 1983) pp. 87–101.

[34] See *Summa contra haereticos* (*Patr. Lat.* 210: 379c–d).

[35] The biblical reference here is to Genesis 28:12ff. The motif of a ladder was commonly used by monastic authors as a way of detailing the incremental pursuit of spiritual perfection; see Benedict's *Regula monachorum* 7, and Hugh of St. Victor, *Didascalicon* V.9–10.

[36] For a short but synoptic portrait of his writings which contains an analysis of his scientific, theological and moral thought see Evans, *Alan of Lille*.

the homiletical ladder is the exposition of Scripture with the aid of others. Here Alan has in mind the specific activities and literature that were used in the formal study of Scripture in the schools of his day.[37] The last step is to preach openly to a congregation on the many subjects one has learned about from Scripture (ibid.).

The importance attached to popular preaching is further evident in several measures taken by the church in the last years of the twelfth and the early part of the thirteenth centuries. Pope Innocent III (1161–1216) employed carefully written sermons as a means of promoting his plans of reform,[38] and prominent *magistri* in the cathedral schools at Paris (such as Peter the Chanter,[39] Stephen Langton,[40] and Robert of Courson[41]) responded enthusiastically to the pope's call for moral improvement. These individuals were interested in the renewal of Christian teaching, and for this reason they attached great importance to popular preaching. The process begun by Innocent III and continued by the Parisian masters was consolidated at the Fourth Lateran Council (1215), whose tenth canon, *De praedicatoribus instituendis* (On Appointing Preachers), recognized the responsibility of every bishop to name priests suited to fulfill the important task of instructing the faithful by deed and word (*opere et sermone*).[42]

A further consequence of the Council was its establishment of both a close connection between preaching and confession and the role of preaching in the pastoral war against sin.[43] In this connection, it is important to understand that in medieval Latin *predicare* (preaching) was a broad term. While in the first instance it signified preaching and delivering sermons – which increased in number and status as the thirteenth century developed – it also conveyed, more generally,

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[37] See Beryl Smalley, *The Study of the Bible in the Middle Ages*, 3rd edn (Oxford: Blackwell, 1983) pp. 196–263; and G. R. Evans, *The Language and Logic of the Bible: The Earlier Middle Ages* (Cambridge: Cambridge University Press, 1984) pp. 80–120.

[38] See Jane Sayers, *Innocent III: Leader of Europe, 1198–1216* (London: Longman, 1994) pp. 49–162, and Brenda Bolton, *Innocent III: Studies on Papal Authority and Pastoral Care* (Aldershot: Variorum, 1995) pp. 40–65.

[39] See John W. Baldwin, *Masters, Princes and Merchants: The Social Views of Peter the Chanter and his Circle* (Princeton, NJ: Princeton University Press, 1970) I: 107–17.

[40] See Phyllis B. Roberts, *Stephanus de Lingua Tonante: Studies on the Sermons of Stephen Langton* (Toronto: Pontifical Institute of Mediaeval Studies, 1968) pp. 30–87.

[41] See Marcel Dickson and Christiane Dickson, "Le Cardinal Robert de Courson, sa vie," *Archives d'histoire doctrinale et littéraire du moyen âge* 9 (1934) 53–142. Robert's *Summa theologica*, a work incomplete at his death, deals with a host of moral problems, among them usury.

[42] See Norman Tanner (ed.) *Decrees of the Ecumenical Councils* (London: Sheed and Ward, 1990) I: 239–40.

[43] On the connection between preaching and confession in the conciliar documents see Richard Rouse and Mary Rouse, *Preachers, Florilegia and Sermons: Studies on the "Manipulus florum" of Thomas of Ireland* (Toronto: Pontifical Institute of Medieval Studies, 1979) pp. 56–8.

teaching others how to live a Christian life, being a form of *catechesis* directly related to confessional practice.[44] In this way, preaching was the principal means used to move the laity (and indeed other priests) to contrition, and then to confession.[45] After the Fourth Lateran Council had required annual confession of all Christians, English diocesan statutes (to cite one example among countless others) established a clear connection between confession and preaching about sin in the vernacular. A statute from Worcester in 1240 states, for instance, that since "the Decalogue and fleeing the Seven Sins are necessary for salvation," they must assume an important role in confession, and they must be preached frequently to the people.[46]

The new orders of friars – Franciscans, Dominicans, Carmelites, and Augustinian Hermits – further assisted the cause of popular preaching and provided a more sophisticated penitential rationale. Their rapid growth and establishment in cities, towns, and universities throughout the first half of the thirteenth century may be seen as a continuation and extension of a theologically renewed church's mission to educate, encourage, and exhort its members. In the friars' hands, moreover, the production of sermons reached new levels of accomplishment.[47] To help the preacher perform his task, they produced a vast body of didactic literature, which includes not only theoretical treatises such as *Liber de eruditione praedicatorum* (1263) by the Dominican Humbert of Romans, but also technical works such as the *Forma praedicandi* (1322) by Robert of Basevorn and the *De modo componendi sermones* (*ca.* 1340) by the Dominican Thomas Waleys, which acted as detailed guides to sermon construction.[48]

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[44] See Roy Martin Haines, *"Ecclesia Anglicana": Studies in the English Church of the Later Middle Ages* (Toronto: University of Toronto Press, 1989) pp. 135–7; Vincent Gillespie, "*Doctrina* and *Predicacio*: The Design and Function of Some Pastoral Manuals," *Leeds Studies in English* n.s. 11 (1980) pp. 40–6.

[45] See Lester Little, "Les techniques de la confession et la confession comme technique," in *Faire croire: modalités de la diffusion et de la réception des messages religieux du XIIe au XVe siècle* (Rome: École française de Rome, 1981) pp. 88–92.

[46] Roberto Rusconi, "De la prédication à la confession: transmission et contrôle de modèles de comportement au XIIIe siècle," in *Faire croire*, pp. 72–3.

[47] For discussion of all aspects of Franciscan and Dominican preaching see Anscar Zawart, *The History of Franciscan Preaching and of Franciscan Preachers (1290–1927): A Bio-bibliographical Study* (New York: Wagner, 1928); Bert Roest, *A History of Franciscan Education (c. 1210–1517)* (Leiden: Brill, 2000) pp. 272–324; H. C. Scheben, "Prediger und Generalprediger im Dominikanorden des 13. Jahrhunderts," *Archivum Fratrum Praedicatorum* 21 (1961) 112–41; Mary E. O'Carroll, *A Thirteenth-Century Preacher's Handbook: Studies in MS Laud misc. 511* (Toronto: Pontifical Institute of Medieval Studies, 1997) pp. 35–57; David d'Avray, *The Preaching of the Friars: Sermons Diffused from Paris before 1300* (Oxford: Clarendon Press, 1985).

[48] For a discussion of Robert's *Forma praedicandi* see Thomas-Marie Charland, *Artes praedicandi: contribution à l'histoire de la rhétorique au moyen âge* (Paris: Vrin, 1936) pp. 9–12, 73–81, 110–28, 132–54, 167–78, and 211–30. The work of Thomas Waleys is discussed by Beryl Smalley, *The English Friars and Antiquity in the Early XIVth Century* (Oxford: Blackwell, 1960) pp. 75–108.

Specific sermons were also written for specific groups of people. Known as *ad status* homilies, these were directed to the particular pastoral needs of different social groups in medieval society, ranging from merchants, artisans, and clerical students to knights and kings.[49]

The moral ideas of three well-known late medieval preachers and moralists – John Gerson,[50] the Franciscan Bernardino of Siena,[51] and the Dominican Antoninus of Florence[52] – provide constructive examples of the connection between medieval moral thought and preaching. What is initially striking about their work is the way in which they used the established techniques of popular preaching to persuade their varied audiences of the need to bring about the moral amelioration of their lives. In the course of encouraging small and large congregations to higher things, these preachers also expended considerable effort on understanding the challenges presented to Christian morals by cases of conscience (*casus conscientiae*) or moral dilemmas. The moral thought of Gerson, Bernardino, and Antoninus is irreducibly practical;[53] in their work, any systematic or more speculative reflection on the problems and issues of human life is always indexed to an overriding concern to guide and change moral behavior. Hence the importance of preaching: through its office, the pastor could offer concrete guidance to individuals in their daily lives. For Gerson, Bernardino, and Antoninus, the preacher's words, whether they be in Latin or in the vernacular, were never abstract formulas that were then to be applied to hypothetical cases. Rather, the preacher's utterances were based upon a sure

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[49] On this see Odd Langholm, *The Merchant in the Confessional: Trade and Price in Pre-Reformation Penitential Handbooks* (Leiden: Brill, 2003).

[50] On Gerson's moral thought see Brian Patrick McGuire, *Jean Gerson and the Last Medieval Reformation* (University Park, PA: Pennsylvania State University Press, 2005); and D. Catherine Brown, *Pastor and Laity in the Theology of Jean Gerson* (Cambridge: Cambridge University Press, 1987). On his preaching see Louis Mourin, *Jean Gerson prédicateur français* (Bruges: De Tempel, 1952).

[51] For detailed analysis of Bernardino's preaching, see Paul Thureau-Dangin, *Un prédicateur populaire dans l'Italie de la Renaissance: Saint Bernardin de Sienne, 1380–1444* (Paris: Bloud et Gay, 1926); Loman McAodha, "The Nature and Efficacy of Preaching According to St. Bernandine of Siena," *Franciscan Studies* 27 (1967) 221–247; Renzo Lo Cascio, "La predica del predicare di San Bernardino," in F. d'Episcopo (ed.) *San Bernardino da Siena predicatore e pellegrino* (Galatinna: Congedo, 1985) 63–73; Franco Mormando, *The Preacher's Demons: Bernardino of Siena and the Social Underworld of Early Renaissance Italy* (Chicago: University of Chicago Press, 1999).

[52] For a helpful discussion of Antoninus's thoughts on preaching and their general relation to his moral thought, see Stefano Orlandi, *Antonino, arcivescovo di Firenze, dottore della chiesa: studi* (Florence: Il Rosario, 1959); and Peter F. Howard, *Beyond the Written Word: Preaching and Theology in the Florence of Archbishop Antoninus 1427–1459* (Florence: Olschki, 1995).

[53] This is so even in the case of Gerson who is an advocate of so-called "mystical theology": see my "'*Initium omnis peccati est superbia*': Jean Gerson's Account of Pride in his Mystical Theology, Pastoral Thought, and Hamartiology," in R. Newhauser (ed.) *In the Garden of Evil: The Vices and their Culture in the Middle Ages* (Toronto: Pontifical Institute of Mediaeval Studies, 2005) 293–323.

knowledge of the actual circumstances in which men and women lived out their moral lives. In many respects, their work provides a window on late medieval pastoral thought in action.[54]

VIRTUE, DEADLY SINS, AND CONFESSION

The plural sources from which medieval ethicists drew their ideas about virtue can also be said to have conditioned their approach to practical questions. When classical moral philosophy was revived in the twelfth century, the texts of Cicero helped to disseminate certain Stoic ideas, while the writings of Macrobius (*fl.* 395–423) made Neoplatonic notions distilled from Plotinus available to a new generation of ethicists.[55] Although these authors were known in the Latin West, their works had been largely ignored by earlier generations of moral theologians, who tended to look for pastoral guidance to monastic writers such as Gregory the Great (*ca.* 540–604) and John Cassian (360–435), or else to Augustine. This, however, was to change. With the inclusion of a more extensive repertoire of ancient sources, which from the mid-thirteenth century onwards included not only the ethics of Aristotle but also a deeper understanding of the Stoics, medieval moralists had before them a wider set of ideas about virtue with which to tackle a host of pressing moral problems.[56]

Alongside virtue, medieval thinkers mused at great length on sin and vice. The seven deadly sins of pride (*superbia*), avarice (*avaritia*), lust (*luxuria*), anger (*ira*), gluttony (*gula*), envy (*invidia*), and sloth (*acedia*) provided a general matrix for the moral assessment of acts and character. When combined with detailed theological schemes for the classification of sins,[57] the topics of vice and virtue played a vital component in medieval pastoral thought and literary culture.[58] Loosely corresponding to the order of the seven "bad thoughts" originally

[54] See specifically John Gerson, *Œuvres complètes* VII: 399, 482; VIII: 10–12, 73; IX: 70; X: 314–15. For Bernardino see the *Opera omnia* I: 178, 206; II: 188–293; V: 68–170, as well as the vernacular sermons *Le prediche volgari (Firenze 1424)* (*Opera* II: 282–311); and Antoninus of Florence, *Summa theol.* III.18.3 par. 2 (ed. 1740, col. 1018a), par. 3 (col. 1018b–c), par. 1 (col. 1014c).

[55] On this revival see István Bejczy and Richard Newhauser (eds.) *Virtue and Ethics in the Twelfth Century* (Leiden: Brill, 2005).

[56] See Lottin, *Psychologie et morale* IV.2, and Bonnie Kent, *The Virtues of the Will: The Transformation of Ethics in the Late Thirteenth Century* (Washington, DC: Catholic University of America Press, 1995).

[57] See for instance, Thomas Aquinas, *Sent.* Bk. II, dist. 35–7, 39, 41–3; *Summa contra gentiles* III.9; *Summa theol.* 1a2ae qq. 72 and 81.1; and John Duns Scotus, *Ordinatio* Bk. II, dist. 37–40 and Bk. IV, dist. 15 q. 1 n. 12, and *Quodlibet* 18 nn. 1–12. For other texts and commentary see Lottin, *Psychologie et morale* IV.1.

[58] See Carla Casagrande and Silvana Vecchio, *I sette vizi capitali: storia dei peccati nel medioevo* (Turin: Einaudi, 2000).

set down by Evagrias of Pontus (346–99), the seven deadly sins were first systematized in the West by monastic writers such as John Cassian and Gregory the Great.[59] By the fourteenth century, the teaching on these seven capital vices had become widespread in Latin Christendom. Although the list of seven sins had definite limitations and was later displaced by the Decalogue as the most authoritative scheme of moral taxonomy,[60] the astonishing resilience of this series of moral entities was such that it enjoyed a high profile in medieval literary culture[61] and was further responsible for a genre of didactic treatises that aimed to explain the causes and origin of each vice and its remedy in virtue. Due to the profusion of these works,[62] the German Dominican Henry Suso was moved to remark sometime between 1331 and 1334 that "there are so many books that treat the vices and virtues . . . that this short life would come to an end before one could study all of them" (*Horologium sapientiae* II.3, ed. Künzle, pp. 540–1).

One notable work in this genre was the mid-thirteenth century *Summa de vitiis et virtutibus* of William Peraldus, a book that enjoyed considerable influence due to its use and promotion by Peraldus's fellow Dominicans.[63] Its subject matter particularly commended it to confessors, since its stated aim was the identification of sin and the exhortation of virtue. The moral tract further suggested themes for sermons, and it offered *exempla* that the preacher could use to illustrate various moral points. There are over two

[59] For discussions of the history and development of the seven deadly sins see Morton W. Bloomfield, *The Seven Deadly Sins: An Introduction to the History of a Religious Concept* (East Lansing: Michigan State College Press, 1952) pp. 69–104; Rosamond Tuve, "Notes on Virtues and Vices," *Journal of the Warburg and Courtauld Institutes* 26 (1963) 264–303; 27 (1964) 42–72; Siegfried Wenzel, "The Seven Deadly Sins: Some Problems of Research," *Speculum* 43 (1968) 1–22; Aimé Solignac, "Péchés capitaux," in M. Viller *et al.* (eds.) *Dictionnaire de spiritualité* (Paris: Beauchesne, 1937–95) XII.1: 853–62; Richard Newhauser, *The Treatise on Vices and Virtues in Latin and the Vernacular* (Turnhout: Brepols, 1993) pp. 97–152; Newhauser, *The Early History of Greed: The Sin of Avarice in Early Medieval Thought and Literature* (Cambridge: Cambridge University Press, 2000); Newhauser (ed.) *In the Garden of Evil*; and Newhauser (ed.) *The Seven Deadly Sins: From Communities to Individuals* (Leiden: Brill, 2007).

[60] Carla Casagrande and Silvana Vecchio, "La classificazione dei peccati tra settenario e decalogo (secoli XIII–XV)," *Documenti e studi sulla tradizione filosofica medievale* 5 (1994) 331–95; and John Bossy, "Moral Arithmetic: Seven Sins into Ten Commandments," in E. Leites (ed.) *Conscience and Casuistry in Early Modern Europe* (Cambridge: Cambridge University Press, 1988) 214–34.

[61] Newhauser, *In the Garden of Evil*, pp. vii–x.

[62] See Richard Newhauser and István Bejczy, *Towards a Revised Incipitarium: Corrections, Supplements, Deletions, and Additions to Update Morton Bloomfield et al., Incipits of Latin Works on the Virtues and Vices* (Turnhout: Brepols, 2007).

[63] See Antoine Dondaine, "Guillaume Peyraut, vie et œuvres," *Archivum Fratrum Praedicatorum* 18 (1948) 162–236, and Siegfried Wenzel, "The Continuing Life of William Peraldus's *Summa vitiorum*," in M. D. Jordan and K. Emery (eds.) *Ad Litteram: Authoritative Texts and Medieval Readers* (Notre Dame, IN: University of Notre Dame Press, 1992) 135–64.

hundred *exempla* in the *Summa de vitiis et virtutibus*,[64] supplemented with long lists of *auctoritates* and stock arguments that preachers could also employ in their sermons.

The ultimate remedy for vice was the sacrament of confession, which up to the end of the twelfth century was widely administered in the form of private confession by a priest to a penitent.[65] This practice was fully standardized in the Western church when Innocent III convoked the Fourth Lateran Council in 1215. As mentioned above, one of the famous decrees of this council, *Omnis utriusque sexus fidelis* ("All the faithful of either sex"), declared that every Christian was required to go to confession once a year. As a result of this injunction the clergy, who at this time were not educated to a uniform standard, were in need of instruction as to how to hear confessions responsibly, given that they had to assign particular penances to the various *casus* presented to them by their penitents. In order to meet this pastoral need, a new mode of writing was developed, and the books that eventually emanated from this genre were known as *Summe confessorum* or confessional manuals.[66]

Such penitential writing was a distinctive part of medieval literary culture, encompassing academic tracts as well as works of popular devotion written in vernacular languages. At their least distinguished, the *summe confessorum* that poured forth from the universities and religious houses imposed nothing more than a tariff on human failing by assigning particular penances to particular sins; at their best they provided concrete yet sagacious instruction to individual priests in the hearing of confessions, in accordance with the guidelines set out by the Fourth Lateran Council. These guidelines, which can be found in the second part of *Omnis utriusque sexus fidelis* require that:

the priest be discerning and prudent (*discretus et cautus*), so that like a skilled doctor he can apply wine and oil [cf. Luke 10:34] to the wounds of an injured person, diligently inquiring about the circumstances of the sinner and the sin, through which he can

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[64] On the *exempla* see Jean Thiébaut Welter, *L'exemplum dans la littérature religieuse et didactique du moyen âge* (Paris: Occitania, 1927) p. 165, and Jacques Berlioz and Marie Anne Polo de Beaulieu, *Les exempla médiévaux: nouvelles perspectives* (Paris: Champion, 1998).

[65] Alexander Murray, "Confession before 1215," *Transactions of the Royal Historical Society*, 6th series, 3 (1993) 51–81. See also Henry Charles Lea, *A History of Auricular Confession and Indulgences in the Latin Church* (London: Swan Sonnenschein, 1896); Jean Delumeau, *L'aveu et le pardon: les difficultés de la confession xiiie–xviiie siècle* (Paris: Fayard, 1990); and Peter Biller and A. J. Minnis, *Handling Sin: Confession in the Middle Ages* (Woodbridge [Suffolk]: York Medieval Press, 1998).

[66] An extensive history of the *Summe confessorum* is related in the classic series of studies by Johann Dietterle, "Die *Summae confessorum (sive de casibus conscientiae)* von inhren Anfängen an bis zu Silvester Prierias (unter besonderer Berücksichtigung über den Ablass)," *Zeitschrift für Kirchengeschichte* 24 (1903) 353–74, 520–48; 25 (1904) 248–72; 26 (1905) 59–81, 350–62; 27 (1906) 70–83, 166–88, 296–310, 431–42; 28 (1907) 401–31. A more recent account of this genre of writing can be found in Boyle, "*Summae confessorum*."

prudently understand what counsel he ought to give, and what sort of remedy to apply, trying various things to heal the sick person.[67]

The analogy of priest as physician of the body was an ancient one.[68] It had been applied to Christ by the early Fathers of the church,[69] and the images of both doctor and the healing powers of medicine were commonplace in the early penitentials.[70] By using this image, the Fathers of the Fourth Lateran Council never had it in mind to institute the sacrament of penance as a verdictive instrument for the chastisement of individual sinners, but rather intended that penance would "heal" or "cleanse away" the defects or impediments in an individual's soul that had been brought about by the deleterious influence of sin. As medieval thinkers understood it, penance was a necessary remedy for moral turpitude, a "cure" that had been granted to fallen individuals by the benign and compassionate offices of a loving deity.

An important influence on the *Omnis utriusque sexus fidelis* were theological developments that had taken place in the schools of northern France in the twelfth century. In the writings of Peter Abaelard[71] and Peter Lombard,[72] close attention was paid to the relative importance of various parts of penance, in particular an interior act of contrition.[73] A circle of talented theologians in late twelfth-century Paris extended the purview of these theological discussions of penance in two significant ways. First, they advocated that the actual rite of confession, that is, of confessing one's sins to an appropriately qualified priest,

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[67] Tanner, *Decrees of the Ecumenical Councils*, I: 245.

[68] For a very full discussion of this idea see Jean-Claude Larchet, *Thérapeutique des maladies spirituelles: une introduction à la tradition ascétique de l'Eglise orthodoxe* (Paris: Cerf, 1997).

[69] For a discussion of this concept in relation to the work of the Fathers see Rudolph Arbesmann, "The Concept of '*Christus medicus*' in St. Augustine," *Traditio* 10 (1954) 1–28.

[70] John T. McNeill, "Medicine for Sin as Prescribed in the Penitentials," *Church History* 1 (1932) 14–26.

[71] On inner acts in Abaelard's ethics, see Chapter 37. For general studies of Abaelard's views on penance see Polykarp Schmoll, *Die Busslehre der Frühscholastik: Eine dogmengeschichte Untersuchung* (Munich: Lentner, 1909) pp. 28–35; Amédée de Zedelghem, "L'attritionisme d'Abélard," *Estudis Franciscans* 35 (1925) 178–84; 333–45; J. G. Sikes, *Peter Abailard* (Cambridge: Cambridge University Press, 1932) pp. 196–200; and Paul Anciaux, *La théologie du sacrament de pénitence au XIIe siècle* (Louvain: Nauwelaerts, 1949) pp. 64–70, 165–75, and 286–94.

[72] Peter's views on penance are discussed by Schmoll in *Die Busslehre der Frühscholastik*, pp. 67–74; Joseph Spitzig, *Sacramental Penance in the Twelfth and Thirteenth Centuries* (Washington: Catholic University of America Press, 1947) pp. 67–85; Anciaux, *La théologie du sacrament de pénitence*, pp. 223–31, 329–35; and Colish, *Peter Lombard*, II: 583–608.

[73] For a helpful discussion of the development of this view see Baldwin, *Masters, Princes and Merchants*, I: 50–110. A more recent study of this issue can be found in Jean Charles Payen, "La penitence dans le contexte culturel des XIIe et XIIIe siècles: des doctrines contritionnistes aux pénitentiels vernaculaires," *Revue des sciences philosophiques et théologiques* 61 (1977) 399–428. For further discussion of 'contritionism' see Joseph Goering, "The Internal Forum and the Literature of Penance and Confession," *Traditio* 59 (2004) 175–227.

was just as important as the inner act of contrition; second, they argued for the importance of an understanding of the "circumstances" of sin and the sinner in any account of penance.[74] Among these theologians, Peter the Chanter's *Summa de sacramentis et animae consiliis* (*ca.* 1191) brought a circumstantial awareness to bear on a number of moral issues that would have been presented to any medieval confessor: theft, simony, incest, usury, vows, and oaths. Other authors who wrote *Summe confessorum* were Alan of Lille, whose *Liber penitentialis* was written around 1200; Robert of Flamborough, who composed his *Liber penitentialis* sometime between 1208 and 1213; Peter of Poitiers, who wrote the *Summa de confessione*; Thomas of Chobham, whose *Summa confessorum* was written around or just after 1216; and William of Auvergne, who wrote two works on penance: the *Tractatus novus de penitentia*, and a much longer discussion that forms part of his treatise on the seven sacraments, *De sacramentis*.[75]

From the mid-thirteenth century onwards, the writings of the friars helped to develop the *summe confessorum* even further. Among the Dominicans, Raymond of Pennafort wrote the widely admired *Summa de paenitentia* (sometimes referred to as the *Raymundina*) (*ca.* 1221). One of the interesting features of the writings of the Dominicans was the extent to which their efforts in academic theology informed their penitential outlook, especially with regard to the study of thorny cases of conscience, many of which were broached in the *quodlibeta* of late thirteenth-century Paris. For example, the early *quodlibeta* of Thomas Aquinas (1256/9)[76] abound with problems that arise from the vicissitudes of priestly life or else attend the hearing of confessions.[77] Many of the pastoral views expressed by Thomas would prove influential for later manualists. John of Freiburg, for instance, copied and adapted a large part of Thomas's moral thought into his *Summa confessorum* of 1298. Parisian moral theology from the second half of the thirteenth century was further circulated either directly, through the large

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[74] See D. W. Robertson, "A Note on the Classical Origins of 'Circumstances' in the Medieval Confessional," *Studies in Philology* 43 (1946) 6–14.

[75] Both these treatises are edited in William's 1674 *Opera omnia*. For a general discussion of William and all the other writers listed above see Josef G. Ziegler, *Die Ehelehre der Pönitentialsummen von 1200–1350* (Regensburg: Pustet, 1956); Spitzig, *Sacramental Penance*, pp. 38–106; Alfred Vanneste, "La théologie de la pénitence chez quelques maîtres parisiens de la première moitié du xiiie siècle," *Ephemerides Theologicae Lovanienses* 28 (1952) 24–58; Pierre Michaud-Quantin, "A propos des premières *summae confessorum*," *Recherches de théologie ancienne et médiévale* 26 (1959) 264–306; Herbert Vorgrimler, *Busse und Krankensalbung* (*Handbuch der Dogmengeschichte* IV.3) (Freiburg: Herder, 1978) pp. 114–53; Pierre Adnés, "Pénitence," in Viller *et al.*, *Dictionnaire de spiritualité* XII.1: sec. 5.

[76] See Kevin White, "The Quodlibeta of Thomas Aquinas in the Context of his Work," in Schabel, *Theological Quodlibeta*, I: 49–134.

[77] See Leonard Boyle, "The *Quodlibets* of St. Thomas and Pastoral Care," *Thomist* 38 (1974) 232–56; reprinted in Boyle, *Pastoral Care*.

numbers of copies of John's *Summa confessorum* that found their way to most parts of medieval Europe, or else indirectly, through the various works that plundered John's *Summa* for its quotations of Parisian theologians.[78]

The central place of confession in Franciscan pastoral care explains that order's contribution to the production of confessional manuals, both to teach their own incumbent preachers and to supply the secular clergy with additional materials. Several of these confessional manuals – such as the *Summa de casibus conscientiae* (*ca.* 1317) (sometimes known as the *Astesana*) by Astesanus of Asti and the *Summa confessorum* by John of Erfurt – found their way all over Europe. Other important Franciscan authors who wrote manuals were John Rigaud, John of Wales, Marchesinus de Reggio, Nicholas Byard, and Servasanto of Faenza.

No discussion of the confessional literature of the later Middle Ages would be complete without consideration of the work of John Gerson. Despite his wide intellectual interests and the prominent role he played in public life as chancellor of the University of Paris, Gerson saw himself as above all a working pastor, and his overt concern for the spiritual welfare of his flock lies at the heart of his writing and other public activities. Even his university lectures reveal a preoccupation and concern for the spiritual and moral plight of *les simples gens.* Gerson was also a very popular preacher, both in court circles and in parish churches in and around Paris.[79] Among his works on confession, the so-called *Opus tripartitum* or *Doctrinale* was certainly the most influential and remarkable. Its three parts – an exposition of the Ten Commandments (*Le livre des dix commandements*), a treatise on confession (*L'examen de conscience*), and a preparation for death (*La science de bien morir*) – were all written separately, but they were soon put together to make a book that was celebrated throughout late medieval Europe.

Gerson also developed various techniques to aid the confessor in extracting a complete and candid confession from the penitent. These are explained in his treatise *De arte audiendi confessiones.*[80] The confessor, he writes, should be affable at first to gain the confidence of the penitent and impress upon him or her the necessity of hiding nothing. If he suspects anyone of duplicity he should give

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[78] See Leonard Boyle, "The *Summa confessorum* of John of Freiburg and the Popularization of the Moral Teaching of St. Thomas and Some of his Contemporaries," in A. Maurer (ed.) *St. Thomas Aquinas, 1274–1974: Commemorative Studies* (Toronto: Pontifical Institute of Mediaeval Studies, 1974) II: 245–68; reprinted in Boyle, *Pastoral Care.*

[79] On Gerson's status as a preacher see McGuire, *Jean Gerson*, pp. 184, 308; and Gilbert Ouy, "Discovering Gerson the Humanist: Fifty Years of Serendipity," in B. P. McGuire (ed.) *A Companion to Jean Gerson* (Leiden: Brill, 2006) 79–132.

[80] A good discussion of this work and its relationship to Gerson's general views on penance can be found in Brown, *Pastor and Laity*, pp. 56–72 and McGuire, *Jean Gerson*, pp. 172–7.

the impression that he thinks it is being done out of inadvertence rather than
with prior intention, so that a confrontational atmosphere is not created. It is
advisable, Gerson thinks, for the confessor to begin by asking questions about
sins which almost all people commit and which are therefore easy to admit.
From there he should move on to rarer and more serious sins. Throughout the
whole process, the penitent must not feel that the confessor is disposed to think
badly of him. Gerson is adamant that the experience of confession must be an
affirming religious ritual that will reconcile the penitent to the ways of God and
the requirements of probity. Gerson's *De arte audiendi confessiones*, like so many
of its thirteenth-century predecessors, is marked by a sensitivity and gentleness,
as well as an urbane psychological acumen, that manifests the very best features
of the *summe confessorum*.

Another giant of late medieval penitential thought was Antoninus of Florence.
One of his manuals to enjoy great popularity was the *Confessionale defecerunt*, first
published in 1472. Even more influential was the *Summa theologica*, which went
through no fewer than twenty complete editions in four large folio volumes.
This work might more properly be thought of as *Summa moralis* rather than a
Summa confessorum: its opening part treats the soul and its faculties, the passions,
sin and law; the second and third deal with the different states and professions
of life (social, ecclesiastical, and religious), together with a treatise on the pope,
councils, and censures. The fourth part of the work is devoted to the cardinal
and theological virtues. Antoninus's *Summa* is among the first of the manuals
to treat all the matters that relate to the spiritual and moral life from a purely
practical point of view. The work contains many insights and reflections that
would now belong within the purview of the social sciences, and reveals its
author to be one of the foremost ethicists of his age.[81]

Medieval thinkers like Gerson and Antoninus – who so fervently pursued the
art of moral exhortation, aimed to diagnose the extent and ill-effects of human
sinfulness, and proposed practicable resolutions to the recalcitrant quandaries of
conscience – were concerned foremost with the care and salvation of souls. Such
a pastoral commitment expressed itself in a distinctive outlook on moral practice
which, while not wholly 'philosophical,' was characterized nevertheless by a
casuistical sensitivity to the circumstances in which a person acts, the dispositions
of that agent, and the kinds of precepts that ought or ought not to ground action.
By means of the assorted methods of canon law, the art of preaching, reflection
on vice and virtue, and the *summe confessorum*, medieval thinkers constructed

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[81] For one of the very few studies on Antoninus's moral thought see William Gaughan, *The Social
Theories of Saint Antoninus from the Summa Theologica* (Washington, DC: Catholic University of
America Press, 1951).

for themselves a complex description and analysis of the causes, nature, and circumstances of practical conduct that proved indispensable to the guidance of souls (*regimen animarum*). Since the path to salvation was thought to be facilitated by humane and holy guidance, medieval ethicists embraced the challenge to make moral inquiry responsive to a clear and detailed understanding of the foibles, exigencies, and vicissitudes of human life.

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POLITICAL PHILOSOPHY

RELIGIOUS AUTHORITY AND THE STATE

ANTONY BLACK

Religious authority and the state were conceived very differently in the Byzantine world, the Muslim world, and Latin Europe. This last was the only civilization in which the age-old and nearly universal notion of sacred monarchy was consistently and increasingly challenged.[1] In the Byzantine and Muslim worlds (except among the Shīʿites), the ruler remained a focal point of living religious authority. The Latin West was also distinguished by the variety of views expressed on this subject and the variety of forms which the relationship between church and state took. In some places the bishop was also temporal ruler, whereas in self-governing cities clergy had no overt political role. In feudal kingdoms, bishops were major landowners and often state counselors, but they owed their position partly to royal favor. Moreover, the way in which the church–state relationship was understood and theorized in the West changed as time went by. In Byzantium, by contrast, it never changed, while in the Muslim world, changes were rarely registered in what people wrote down.

BYZANTIUM

Eastern Christendom drew its notion of sacred monarchy from Roman imperial ideology, christianized by Eusebius of Caesarea (*ca.* 260–340). The one emperor was supposed to reflect the one God; he ruled "by God's favor" as "God's deputy." The common form of address to a Byzantine emperor was "O most divine emperor."[2] For more than a thousand years, the Eastern church regarded the empire as an essential part of the expression of Christ in the world. In 1391, for instance, the patriarch of Constantinople told the prince of Moscow: "it

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[1] Francis Oakley, *Kingship: The Politics of Enchantment* (Oxford: Blackwell, 2006); Antony Black, *The West and Islam: Religion and Political Thought in World History* (Oxford: Oxford University Press, 2008).

[2] Ernest Barker, *Social and Political Thought in Byzantium: From Justinian I to the Last Palaeologus* (Oxford: Clarendon Press, 1957) p. 478. See also Averil Cameron, *Christianity and the Rhetoric of Empire: The Development of Christian Discourse* (Berkeley: University of California Press, 1991).

is not possible for Christians to have a church and not to have an empire."[3] Byzantium also transmitted its ideology to the peoples they converted, notably those in Bulgaria, Serbia, and Russia.

Within the Byzantine church itself, the emperor had considerable say in senior church appointments and played a leading, though not necessarily decisive, role in the councils that determined doctrine and discipline. In return, emperors enforced current church orthodoxy, sometimes on recalcitrant populations. This has been called "Caesaropapism."

LATIN EUROPE

Most of these Byzantine notions were rejected in the West. In a statement quoted throughout the Middle Ages (though with a variety of meanings), Pope Gelasius I (ruled 492–6) ruled out Caesaropapism, declaring that there are two powers: one of bishops, and the other of kings; "the sacred authority of bishops" carries greater weight, however, than the royal power. Christian emperors, Gelasius claimed, hold power from God only over state affairs; in what affects the salvation of the soul, emperors must "obey rather than control the religious establishment."[4] An emperor could have no role in decisions about religious doctrine or church discipline. Although this had parallels in some eastern theology, Roman bishops – unlike the patriarchs of the East – were able actually to assert their independence from the emperor. Eventually, under Pope Gregory VII (ruled 1073–85) and his successors, they produced a very different theory of church and state.

What most of all distinguished the Latin West from other medieval cultures was the development of a religious authority not only independent from, but claiming superiority over, the actual rulers. In neither Islam nor Byzantium was there any suggestion that religious leaders have legal or institutional authority over a king. What made this Latin development possible was the unique position of the papacy. It was an office with a strong claim to divine authorization (the pope was "the vicar of Christ"). At the same time, it was politically strong enough – due both to its prestige and influence and to the collapse of the empire in the West – to assert itself as an independent and, at times, dominant

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[3] See Donald M. Nicol, "Byzantine Political Thought," in J. H. Burns (ed.) *The Cambridge History of Medieval Political Thought c.350–c.1450* (Cambridge: Cambridge University Press, 1988) p. 73.

[4] Francis Dvornik, *Early Christian and Byzantine Political Philosophy: Origins and Background* (Washington, DC: Dumbarton Oaks Center for Byzantine Studies, 1966) pp. 804–7; Walter Ullmann, *The Growth of Papal Government in the Middle Ages* (London: Methuen, 1955) p. 21; Joseph Canning, *A History of Medieval Political Thought 300–1450* (Cambridge: Cambridge University Press, 1994) pp. 35–6.

political force. Spiritual or ecclesiastical authority was constantly distinguished from temporal or secular authority.

The most determined attempt to bring secular rulers under the control of religious authorities was the papal revolution of the later eleventh century, when the papacy attempted, with partial success, to wrest control of the appointment of senior clergy from the emperor. This dispute generated a propaganda war unprecedented in Europe, and probably in the world. Gregory VII, the most dynamic leader of this reform movement, interpreted Augustine's idea of the heavenly and earthly cities to mean that states derive their actual legitimacy from the church.[5] A legitimate ruler has to be ratified by the church (which, in this context, usually meant the papacy), and such a ruler may be deposed by it if he fails in his duties. As Hugh of St. Victor put it, "the spiritual power has to institute the earthly power and to judge it if it turns out not to be good" (*De sacramentis* II.2.4). For, according to Gregory's *a fortiori* argument: "if the see of blessed Peter [namely, the Roman bishopric or papacy] pardons and judges heavenly and spiritual matters, how much more earthly and secular ones?"[6] In 1245, Pope Innocent IV deposed the last seriously powerful Germano-Roman emperor, Frederick II, and absolved his subjects from their oath of allegiance. In this view – referred to as "papalism" – there is nothing sacred about earthly kingship.[7] Papalism was a complete reversal of Eusebian ideology, which remained the official doctrine of the Eastern church.

In the period between the Gregorian reform and the Protestant Reformation, the church–state controversy affected the whole of Latin Europe. As well as being a prominent topic in the new and burgeoning disciplines of canon law and theology, numerous tracts by politicians, academics and propagandists on all sides were devoted exclusively to this subject. Indeed, this was probably the most written-about topic in political theory (which became recognized as a separate area of discourse following the recovery of Aristotle's *Politics* in the mid-thirteenth century).

There were innumerable attempts to balance the competing claims of king and clergy, emperor and pope. Which cases should be tried in royal courts, which in church courts? Where is the final court of appeal? Who controls the appointment of bishops, upon whom a king had to rely as part of the command structure of the realm? Could the pope, or the king, tax the clergy? Most

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[5] Henri Xavier Arquillière, *L'augustinisme politique: essai sur la formation des théories politiques du Moyen-Age*, 2nd edn (Paris: Vrin, 1955).

[6] *Registrum*, ed. Caspar, pp. 295, 338, 550. See Gerd Tellenbach, *The Church in Western Europe from the Tenth to the Early Twelfth Century* (Cambridge: Cambridge University Press, 1993) pp. 331, 337–8.

[7] Walter Ullmann, *Medieval Papalism: The Political Theories of the Medieval Canonists* (London: Methuen, 1949).

crucially of all, what authority did the pope have over kings? What authority did kings have over the clergy in their kingdoms? At stake was the fundamental question of the boundary between the legitimate authority of two systems of law and government.

Papalists argued that the pope as vicar of Christ has fullness of power and therefore holds – *de iure* and in principle – all power, temporal as well as spiritual; normally, however, the pope only exercises his spiritual power, leaving temporal power to be exercised by others, on his behalf and at his request ("by his nod"). This meant that he could, if necessary, intervene in a king's exercise of temporal power – not by taking it over himself, but by sanctioning or even deposing a recalcitrant ruler and releasing subjects from their oath of allegiance. This could trigger a change of ruler or even of dynasty. Pro-papal writers also made a distinction between moral issues (the sphere of sin) and purely pragmatic issues: the pope would only intervene in the former.[8] In a dispute between Philip IV of France and Pope Boniface VIII over whether the king had the power to tax the clergy, the pope declared that both the "material sword" and "the spiritual sword" belonged to the church.[9]

Supporters of the independent power of secular rulers countered, for the most part, by insisting that the separation between church and state was fundamental. They interpreted Matthew 22:21 ("render unto Caesar the things that are Caesar's, and unto God the things that are God's") and Pope Gelasius's *dictum* to mean that the clergy, although spiritually superior, did not have any direct control over rulers in secular matters. John of Paris, for instance, argued that the clergy had only an indirect power in the political sphere; they could merely exert influence by their "right of preaching."[10] Such distinctions were always tricky, however, both because of the indefinable boundary between the spiritual and the purely mundane, and because few disputed the clergy's (and the papacy's) right to excommunicate serious delinquents. If a pope chose to excommunicate a king, then, this meant any person coming into contact with the king put him or herself in spiritual danger.

One result of the church–state dispute in medieval Europe was the emergence of an attempt to find arguments for the legitimate independence of secular authority that did not rest on reinterpretation of sacred texts, where the dice tended to be loaded in favor of the spiritual power. Indeed, the European theory of the state may be seen as a long-term reaction to clerical claims to

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[8] See John A. Watt, "Spiritual and Temporal Powers," in Burns, *The Cambridge History of Medieval Political Thought*, pp. 397–402.

[9] As quoted in Antony Black, *Political Thought in Europe, 1250–1450* (Cambridge: Cambridge University Press, 1992) p. 48.

[10] As quoted in Black, *Political Thought*, p. 53.

hegemony. During the dispute between Philip and Boniface, for instance, some supporters of the secular monarchy used Aristotle and Cicero to demonstrate the "intrinsically natural and ethical origin and function of government."[11] This led to a dualist position in which the two powers were seen as altogether distinct: the pope is not superior in the temporal sphere, and neither pope nor king must interfere in the affairs of the other.

Even granted some kind of dualist position, however, there was still the question of who was to decide the boundaries between church and state. Even some royal supporters held that the pope may intervene on an occasional basis when a religious issue is clearly involved; for example, if the king commits the heresy of persistent defiance of the Roman church,[12] the pope can absolve subjects from the oath of allegiance. A few pro-secular authors, such as the radical English reformer John Wyclif,[13] went even further and argued that it was the king, not the pope, who was the vicar of Christ and who represented God on earth. These authors wanted to subordinate the clergy to the secular power. This move beyond dualism and its attendant problems was taken most decisively by Marsilius of Padua, the most original political thinker of the Middle Ages. Writing in support of the emperor-elect Ludwig of Bavaria against the papacy, Marsilius's *Defensor pacis* (1324) asserts the unequivocal superiority of the secular ruler even in the religious sphere. It does so by making a categorical distinction between coercive and persuasive forms of power, and insisting that only a secular ruler authorized by the whole people (in order that they may fulfill their natural aspirations) can legitimately possess coercive power. On such a position, the clergy would teach and administer the sacraments but hold no coercive jurisdiction. Few agreed with Marsilius, though (or, at least, would say so openly), and proponents of this view tended to be condemned as heretics.

At the same time, by about 1350, the natural or secular origin and purpose of government were becoming clearer in many people's minds. Theorists such as Thomas Aquinas and Dante Alighieri had staked out an area that was ethical but not specifically religious – namely, the promotion of virtue in a pre-Christian, Aristotelian-influenced sense. On such theories, there was now a legitimate society that was not a church. It is here, as much as in the ideology of the Italian city-states,[14] that we find the beginnings of the Western theory of the state,

[11] See Watt, "Spiritual and Temporal Powers," p. 406.   [12] See ibid., p. 407.

[13] See K. B. McFarlane, *John Wycliffe and the Beginnings of English Nonconformity* (London: English Universities Press, 1952); Michael Wilks, "Reformatio Regni: Wyclif and Hus as Leaders of Religious Protest Movements," *Studies in Church History* 9 (1972) 109–30.

[14] Quentin Skinner, *The Foundations of Modern Political Thought* (Cambridge: Cambridge University Press, 1978) vol. I.

including the origin of the notion of a secular authority, which is to this day problematic in the Muslim world.

These developments in political theory assumed greater importance because rulers in this period were developing and expanding the sinews of government, and were becoming increasingly capable of putting this theorizing into practice. The papacy itself had led the way with its bureaucratic system; its theory of judicial and legislative sovereignty became one model for the secular state. Secular rulers were, furthermore, developing means of obtaining the popular approval and support deemed necessary to raise taxes, wage wars, and govern effectively – usually by means of parliaments. The role of the wider public – barons, bishops, towns – was crucial to the strength of a state, both in practice and in theory.

The church–state controversy by its very nature led to a development of the role of the people (which, in this period, almost always meant the structured community as a whole) in the authorization of government and in the political process. Such ideas could be deployed against papal authority as well. For example, one riposte to papalist claims was to assert the authority within the spiritual realm of a general council of bishops – supposedly representing the church as a whole – over the pope himself.[15]

Marsilius constructed his argument by means of Aristotelian syllogisms. Starting from first principles purportedly based on observation, Marsilius concludes that the ruler's power is what it is because of a delegation by the community as a whole. This simultaneously reinforces the argument for the purely secular nature of political authority *and* locates that authority exclusively in the whole body of citizens – thus anticipating, in essence, the course taken by modern Western political theory. Marsilius goes on to apply these same principles to the church: excommunication can be imposed only by the whole community of the faithful or by someone acting on their behalf.

Marsilius's contemporary, William of Ockham (also a supporter of Ludwig), seems to have established individual conscience as the final judge in all moral and theological questions. In what was probably the most complex discussion of church and state ever undertaken to that point, his *Dialogus* explores in meticulous detail the relationship between church and state, as well as every conceivable option for the constitution of both church and secular states. It is not always clear, however, what Ockham's own view is. Although he assigns an increased role to councils and parliaments, he recognizes that these are also fallible; he therefore tends to offer a final say to the people at large, but only

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[15] See Watt, "Spiritual and Temporal Powers," p. 408. Marsilius perceptively found precedents in the late Roman and Byzantine church (Black, *Political Thought*, p. 70).

if they are well informed and well intentioned. In other words, it is up to individuals to make up their own minds conscientiously on the basis of all available information.

The church–state controversy, and papalism in particular, encouraged the view that the people may depose their ruler. The theory and practice of the papacy itself provided a precedent: a king who broke church law, or who disobeyed the clergy on a serious matter, was no longer fit to rule his people, and the church authorities could therefore release his subjects from their oath of allegiance.[16] This was one way of legitimizing rebellion. As John of Paris puts it in the later thirteenth century, if a king is heretical, incorrigible, and refuses church censure, the pope can encourage the people to depose him, and excommunicate those who still obey him. To explain such a case, John appeals to the Aristotelian distinction between *per se* and *per accidens* (direct and indirect) causes: "the people, and the pope *per accidens*, would depose him."[17]

ISLAM

Medieval Muslim views on religious authority and the state were quite different from Christian views. In the original message of Muhammad and his followers, there was no separation between religious and political spheres or authorities. All aspects of life and conduct were supposed to be covered by the divinely ordained *Sharīʿa* (religious code); religion *meant* "law" or "right" (*sharʿ*).[18] The *Sharīʿa* embodied justice. Political activity consisted in "commanding right and prohibiting wrong" – that is, ensuring that the standards of the *Sharīʿa* were upheld in practice.[19]

Muslims believed that God had given them the task of spreading Islam and, at the same time, subduing the whole world to their rule. This holy mission thus involved conquering and ruling as well as preaching and morality. "Holy war seems to have been widely regarded as an obligation comparable to prayer."[20] This was what inspired the conquests of Iraq, Palestine, Syria, Egypt, Persia, North Africa, Spain, and Central Asia. Muslim leaders claimed (in effect) that they were establishing a new kind of political society, based on a revelation concerning – among other things – social and economic justice. Thus, they did

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[16] See Gregory VII, *Registrum*, ed. Caspar, pp. 208, 487, 554; Tellenbach, *The Church in Western Europe*, pp. 218, 237.
[17] As quoted in Watt, "Spiritual and Temporal Powers," p. 408.
[18] Patricia Crone, *Medieval Islamic Political Thought* (Edinburgh: Edinburgh University Press, 2004) p. 8.
[19] Michael Cook, *Commanding Right and Forbidding Wrong in Islamic Thought* (Cambridge: Cambridge University Press, 2000).
[20] Crone, *Medieval Islamic Political Thought*, p. 363.

not really distinguish the political from the religious, nor the secular from the sacred or spiritual. When we use such terms we are putting a Western template on Muslim thought and language.

It was generally believed that Muslims formed a single community of believers – the *umma* – which God, through Muhammad, had ordained was to be ruled by the caliph (Muhammad's deputy), who was the leader or imam of the community. The caliph's authority was (in Western terms) religious as well as political and military. Although secular rulers from time to time issued supplementary decrees (*qanun* [sing.]), law meant the *Sharī'a*.

In theory, the caliph held a monopoly on the legitimate means of coercion over both the *umma* and the world. He was also an essential part of the religious structure: without a caliph there is no community, and the community is the vehicle of salvation. Certain aspects of the religious law required his partici-pation or consent, tacit or explicit; without a caliph there could be no valid contracts. Within the (religious) community there were also other posts decreed by revelation that Westerners would probably see as partly – or wholly – secular or political in character: judges, for instance, and market regulators (overseers of public morals).[21] Only the caliph or his representative could appoint judges; the market regulator was usually appointed by the judge. According to the great theologian al-Ghazālī, without a caliph "there would be no Friday prayer, no collection of taxes, no missionary jihad, no judges and no execution" of *Sharī'a* punishments.[22]

The Abbasid dynasty (claiming descent from an uncle of the Prophet and initially supported by some Shī'ites as well) established (from 750) a single caliphate for the whole Muslim world, ruling from Baghdad. This, however, lost effective power after about a century. The entire Muslim world soon fragmented (not unlike Western Europe) into a series of dynastic territories, ranging from the Umayyads in Spain to the Ghaznavids in central Asia.

The Shī'a and Sunnī held very different notions of religious authority. The most widely accepted Sunnī view of the caliphate was that expressed by the jurist al-Māwardī. Writing in the early eleventh century, when the Abbasid caliphs had lost political power and been reduced to figureheads, al-Māwardī reasserted the caliphate as the fulcrum of (in Western terms) the political as well as religious aspects of the Muslim community. He insisted that the by now independent sultans must recognize the formal sovereignty of the caliph, and that they held their power as legitimate Muslim rulers by formal delegation from him. Al-Māwardī also re-described the Muslim polity in such a way as to make the caliphate cover secular as well as religious governance, for he held that

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[21] *Encyclopaedia of Islam*, ed. H. A. R. Gibb (Leiden: Brill, 1960–97) s.v. *kadi, muhtasib*.
[22] As quoted in Crone, *Medieval Islamic Political Thought*, p. 22; see also pp. 238, 242, 292.

the caliph was still the political as well as the religious leader of the *umma*. In general, orthodox jurists continued to insist that the caliph was Leader of the People in the original unitary sense.

Numerous early sects held much stricter views about what qualifies a person to be caliph than did supporters of the rather worldly Umayyads (661–740s) or of the Abbasids.[23] Above all, the Shī'ites recognized only direct descendants of 'Alī (the Prophet's son-in-law), each chosen through "designation" by his predecessor. The Imami or Twelver Shī'ites held that the twelfth of these had "gone into hiding" *ca.* 945 and would return at the end of time.[24] Hence, current existing caliphs have no religious status and no legitimacy whatsoever. For these Shī'ites, the separation between religious authority and the state was, consequently, as complete as it could be; they became quietists. The only "politics" they knew was the conduct, sometimes secretive, of their own communal affairs. They would undertake government service only if this would be of service to their fellow Shī'a.

The Twelfth or Hidden Imam was, at least in a spiritual and mystical way, the ultimate authority in all matters for these Shī'ites, and they said the sorts of things about him that Christian papalists said about the pope. Indeed, the twelve true imams were thought to be necessary to the constitution of the universe. As Heinz Halm puts it, "since the ruling caliphs are notoriously sinful and fallible and act tyrannically, there must be a Hidden Imam; without the latter's existence mankind would be forsaken by God, and man would indubitably go astray."[25]

A separation between religion and government emerged in the majority Sunnī community as well. During the first two centuries after Muhammad, certain religious scholar–teachers – the *'ulama* (literally, "the learned") – became recognized as the experts on the Quran and the Hadith (sayings of the Prophet), as well as on the burgeoning discipline of religious law. It was these religious experts rather than the caliph who became the acknowledged moral guides and social leaders of the majority of Muslims. It was they and not, as had at first seemed possible, the caliphs, who appropriated the right to decide what was or was not orthodox doctrine, and also to interpret the *Sharī'a*.[26] This meant that justice was defined independently of the actual ruler; the religious, social, and economic rules of the *Sharī'a* were interpreted primarily by the *'ulama*, especially those who were recognized authorities in jurisprudence (the *fuqaha*).

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[23] See ibid., pp. 54–124, 197–219.

[24] The Sevener or Ismā'īlī Shī'ites, to whom the Fatimids adhered, believed this of the Seventh Imam. Since about the late eleventh century, the great majority of Shī'ites have been Twelver. 'Shī'a' means literally *party* or *sect*.

[25] Heinz Halm, *Shiism* (Edinburgh: Edinburgh University Press, 1991) pp. 55–6.

[26] Patricia Crone and Martin Hinds, *God's Caliph: Religious Authority in the First Centuries of Islam* (Cambridge: Cambridge University Press, 1986).

Thus, the *ʿulama* emerged as a specifically religious coterie of authoritative teachers in Islam, separate from the seats of political and military power. It was claimed that the "verse of the commanders" (*amirs*) in the Quran, which refers to "those in authority among you" (4:62), refers to *ʿulama* rather than to military leaders or rulers. Meanwhile, from the mid-ninth century onward, the caliphate itself was crumbling into a series of separate sultanates (power states). Having lost political power and been reduced almost to a figurehead in both the 'religious' and the 'political' spheres, all the caliph had now was his religio-legal position as the indispensable figurehead of Sunnī Muslims. Although the majority of Muslims still looked up to the hereditary Abbasid caliphs of Baghdad as legitimate deputies of the Prophet, these now depended for military power on the Saljuk Turks who ruled the Muslim heartland of Iraq and western Iran. The Saljuk vizier Nizam al-Mulk (d. 1092) also took it upon himself to promote religious learning by establishing madrasas in major cities.

What was emerging, therefore, was a *de facto* separation between religious and political authority. The original union between religion and politics began to dissolve into a division of roles between various leaders. Muslim jurists paid detailed attention to the relationship between caliph and sultan; regarding the caliph and the *ʿulama*, however, "the dividing-line between the two jurisdictions remained not just fuzzy, but studiously unexplored."[27] It seemed that there was after all to be a separation between religious and political power in Islam. Al-Ghazālī saw Muslims as belonging (in Patricia Crone's words) "to two different communities, one religious and the other political, one the *umma* and the other the secular kingdoms into which it was divided."[28] Increasingly, religious authority was vested in the international coterie of the *ʿulama*, and political power in the sultans of various territorial states. The *ʿulama* taught the faith and adjudicated the *Sharīʿa*; the sultan commanded the military and extracted a tax surplus. It is here that one finds some parallel to church and state in Western Europe.

The two genres of writing that explicitly discussed the relationship between religious authority and the state were religious jurisprudence (*fiqh*)[29] and Advices to Kings.[30] The Advice literature seems to allude in a somewhat haphazard and gnomic way to the relationship between sultan and the *ʿulama* in his domain. In these works and also, so far as one can make out, among the public at large, it also became natural to distinguish between *din* (religion) and *dawla* (state or

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[27] Crone, *Medieval Islamic Political Thought*, p. 132.　　　[28] Ibid., p. 243.

[29] Joseph Schacht, *The Origins of Muhammadan Jurisprudence*, corr. edn (Oxford: Clarendon Press, 1967).

[30] *Encyclopaedia of Islam*, s.v. *Nahisat al-muluk*.

dynasty), but always with the proviso that "kingship and religion are twins"[31] or, as some put it, "The pen and the sword are brothers; neither can do without the other."[32]

In general, what distinguishes what went on in the Muslim world from what went on in the Christian world of Latin Europe was the lack of discussion on this whole subject. This may have been because of the embarrassing disjunction between Islamic principles and the actual situation; people preferred to gloss over it. One of the very few references to a distinction between religious authority and the state comes in a twelfth-century Advice book: "God has singled out two groups of men and given them preference over others: one prophets, and the other kings."[33] The power of prophets was a thing of the past, however, and nothing further is said about how these two categories relate to each other.

The ancient Persian saying "Religion is the foundation of kingship, and kingship the protector of religion" was explained by the tenth-century philosopher al-ʿĀmirī as follows: "the relationship of religious to royal authority is like that of the foundation to the building erected upon it, and the relationship of the ruler to religion is like that of the person who undertakes the basic obligations of a covenant to the basic obligations themselves."[34] This might seem to give the religious aspect a certain superiority; but "religion" is not equated here with the ʿulama, or with any living persons, or with any institution. This is surely not, therefore, comparable to the conception of church and state in either Eastern or Western Christianity. What we seem to find in the expressions of Muslim authors is interdependence, rather than separation, between religion and government. Whatever concerns people may have had about the one encroaching on the other were not voiced.

A separation between religion and politics may also be seen in the way in which, after the violent civil wars of early Islam, proto-Sunnīs, as well as Shīʿa, emphasized how unwise – and even impious – it is to engage in politics. Having started as a religion of political activism, Islam became in the medieval period largely a religion of quietism. Indeed, the good religious life was seen by many as incompatible with politics. Government service is dangerous, leads to immorality, and is to be avoided whenever possible. As a twelfth-century mirror

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[31] Said Amir Arjomand, *The Shadow of God and the Hidden Imam: Religion, Political Order, and Societal Change in Shiʿite Iran from the Beginning to 1890* (Chicago: University of Chicago Press, 1984) pp. 93–4.

[32] Anonymous, *The Sea of Precious Virtue*, tr. Meisami, p. 294.

[33] Ann Lambton, *Theory and Practice in Medieval Persian Government* (London: Variorum Reprints, 1980) IV: 105.

[34] As quoted in Franz Rosenthal, "State and Religion according to Abū l-Ḥasan al-ʿĀmirī," *Islamic Quarterly* 3 (1956) 42–52.

for princes says, "the worst kings are those who keep themselves distant from the *ʿulama*, and the worst *ʿulama* are those who seek closeness to kings."[35]

The Abbasid caliphate was destroyed by the Mongols in 1258. Thereafter, there was no caliph; rather, sultans came to be regarded as exercising the functions of caliph within their own territories. It is interesting, however, that almost immediately after the fall of the caliphate, Ibn Taymiyya – the greatest jurist of the age – reaffirms the necessary connection between religion and politics. God, he says, has joined "knowledge and the pen, with their task of apostolate and persuasion, to power and the sword, with their task of victory and domination." He goes on: "Religion without sultan [power], holy war and wealth, is as bad as power, wealth and war without religion."[36] Ignoring the caliphate, Ibn Taymiyya calls upon the Mamluk sultan and other Muslim rulers to fulfill their religious duties by ensuring that the *Sharīʿa* was implemented, and by undertaking holy war. He also deplores the political indifference of the *ʿulama* and urges them to reengage with politics. In other words, he encourages sultans to assume a 'religious' role in accordance with their position after the demise of the Abbasid caliphate as *de facto* caliphs in their own lands, and he encourages the *ʿulama* to take a 'political' stand whenever this is required in order to teach and implement the *Sharīʿa*.

In marked contrast, Ibn Jamāʿa – a contemporary of Ibn Taymiyya but in Mamluk pay – is the jurist who goes furthest toward accepting the separation between religion and politics. He is prepared to go to extraordinary lengths to adapt religio-legal regulations in order to show that current political practice is acceptable from the viewpoint of the *Sharīʿa*. Even if someone with no religious learning seizes power by force of arms and without the consent of community leaders, Ibn Jamāʿa argues that he should be recognized as a legitimate ruler: "obedience to him is obligatory, so as to maintain the unity of the Muslims," even "if he is barbarous or vicious."[37] Given this approach, it is difficult to bring religious, moral, or legal sanctions to bear on any unjust ruler.

We have found very significant differences in the way relations between religious authority and the state were perceived in Byzantium, the Latin West, and Islam. These differences continued to play a major role in religious thought, political development and social behavior long after the Middle Ages.

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[35] Anonymous, *Sea of Precious Virtue*, p. 297.

[36] As quoted in Antony Black, *The History of Islamic Political Thought: From the Prophet to the Present* (London: Routledge, 2001) p. 155.

[37] As quoted in Bernard Lewis, *The Political Languages of Islam* (Chicago: University of Chicago Press, 1988) p. 102. On Ibn Jamāʿa, see Ann Lambton, *State and Government in Medieval Islam: An Introduction to the Study of Islamic Political Thought: The Jurists* (Oxford, Oxford University Press, 1981) pp. 138–44.

INDIVIDUAL AUTONOMY

CARY J. NEDERMAN

Some readers may find it surprising to encounter a chapter on "individual auton-omy" in a survey of medieval philosophy, especially in connection with political philosophy. After all, an established tradition of historical scholarship insists that the Middle Ages was a period in which hierarchy, interdependence, and com-munal holism were emphasized to the virtual exclusion of the individual. The recovery of Aristotle's writings on ethics and politics during the course of the mid-thirteenth century would seem only to reinforce the generally "commu-nitarian" and anti-individualistic orientation commonly ascribed to medieval thinkers.[1] Recently, the image of medieval Europe as hostile to the individual has been reaffirmed by its depiction as a "persecuting society."[2] Thus, according to the conventional view, the Renaissance and the Reformation constituted the watershed for the appearance of the individual as a moral and political category worthy of philosophical consideration.[3]

Yet medieval political thinkers, both before and after the dissemination of Latin translations of Aristotle's work, were surprisingly attuned to the standing of the individual and the role of free choice in public affairs. In their emphasis on the centrality of private property and consent to government, as well as their insistence on the ability of individuals to enjoy forms of personal liberty (such as free thought, judgment, and speech), these authors resisted the supposedly hierocratic (even authoritarian) tendencies that scholarship often ascribes to the Middle Ages. In turn, the ability of high and late medieval writers to establish a firm grounding for the individual in relation to religious as well as political authority depended upon their access to a wide range of pagan and Chris-tian sources that yielded philosophical and theological principles supporting

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[1] Samuel Beer, "The Rule of the Wise and the Holy: Hierarchy in the Thomistic System," *Political Theory* 14 (1984) 391–422.

[2] R. I. Moore, *The Formation of a Persecuting Society: Power and Deviance in Western Europe, 950–1250*, 2nd edn (Oxford: Blackwell, 2007).

[3] John Martin, "Inventing Sincerity, Refashioning Prudence: The Discovery of the Individual in Renaissance Europe," *American Historical Review* 102 (1997) 1309–42.

personal autonomy.[4] For example, the political and legal traditions inherited from Rome endorsed such values as liberty, philosophical skepticism, and economic freedom.[5] Christian theologians and canon lawyers contributed ideas of free will, conscience, and human rights that were elaborated throughout the patristic and early medieval periods.[6] By the twelfth century, it is entirely plausible to speak of "the discovery of the individual" in a wide range of intellectual disciplines and endeavors.[7] A figure such as Peter Abaelard, whose major work on ethics is entitled *Know Thyself*, typifies the individualistic outlook present among many medieval thinkers.

The wealth of sources for personal autonomy and related doctrines, when applied to questions of political life, produced a number of philosophical examinations of the relation between individual and community. Although some Jewish and Islamic thinkers (such as Moses Maimonides and al-Fārābī) touched on related themes (such as mild skepticism about the ability of the human mind to attain religious knowledge with certainty[8]), these authors seem to have contributed at best secondarily to the promotion of individualism. For the most part, emphasis on the status of the individual was a Western Christian phenomenon. The present chapter will briefly survey several important examples of this effort, starting with John of Salisbury in the middle of the twelfth century and moving forward through John of Paris, Marsilius of Padua, and William of Ockham.

JOHN OF SALISBURY

John of Salisbury is one of the central figures in the emergence of a humanistic spirit associated with the so-called "Renaissance of the Twelfth Century," as well as the first author of an extended medieval treatise on public affairs and

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[4] See Antony Black, "Society and the Individual from the Middle Ages to Rousseau: Philosophy, Jurisprudence and Constitutional Theory," *History of Political Thought* 1 (1980) 145–66.

[5] Chaim Wirszubski, *Libertas as a Political Idea at Rome during the Late Republic and Early Principate* (Cambridge: Cambridge University Press, 1950); Charles Schmitt, *Cicero Scepticus* (The Hague: Nijhoff, 1972) pp. 18–42; Odd Langholm, *The Legacy of Scholasticism in Economic Thought* (Cambridge: Cambridge University Press, 1998) pp. 30–42.

[6] See Simon Harrison, "Do We Have a Will? Augustine's Way in to the Will," and Simo Knuuttila, "The Emergence of the Logic of the Will in Medieval Thought," both in G. Matthews (ed.) *The Augustinian Tradition* (Berkeley: University of California Press, 1999) 195–221; Odon Lottin, *Psychologie et morale aux XIIe et XIIIe siècles* (Gembloux: Duculot, 1948) vol. II, pt. IV; Brian Tierney, *The Idea of Natural Rights: Studies on Natural Rights, Natural Law and Church Law, 1150–1625* (Atlanta, GA: Scholars Press, 1997).

[7] Colin Morris, *The Discovery of the Individual 1050–1200* (New York: Harper and Row, 1972). See also Ineke van't Spijker, *Fictions of the Inner Life: Religious Literature and Formation of the Self in the Eleventh and Twelfth Centuries* (Turnhout: Brepols, 2004).

[8] Al-Fārābī, *On the Perfect State*, ed. Walzer, pp. 279–85.

political community, the *Policraticus*, which was completed in 1159 (about a century before the translation of Aristotle's *Nicomachean Ethics* and *Politics*).[9] John's philosophical role model is Cicero, many of whose works he knows and whose style he imitates. In particular, John embraces the New Academy skepticism advocated by Cicero in order to develop a theory of the connection between personal virtue and forms of social and political liberty. John believes that both virtue and good political order assume extensive freedom of choice and expression, and that such freedom must be respected and indeed protected by other individuals as well as by the healthy public body. Such freedom is necessary on account of the fallibility of the human intellect: since we cannot be certain, in many matters connected with human goodness and earthly well-being, what the correct action may be, we must respect persons who have different conceptions of goodness and who seek to realize them in different ways.

John himself is aware of the connection between his Academy-influenced skepticism and the necessity for a wide band of free judgment and expression. He remarks that his own "spirit of investigation corresponds to Academic practices rather than to the plan of a stubborn combatant, so that each is to reserve to himself freedom of judgment in the examination of truth, and the authority of writers is to be considered useless whenever it is subdued by a better argument" (*Policraticus* VII prol.). The approach of the Academy requires that in all matters not settled beyond reasonable doubt, it is the force of the evidence alone that should prevail. Authorities should not be granted superior wisdom if a more cogent viewpoint opposes them. Likewise, the determination of what position seems most plausible or defensible lies with the individual. In view of his skeptical predilections, John raises the priority of individual judgment to a universal principle.

On more than one occasion in the *Policraticus*, freedom of judgment is designated as a *ius*, a right that pertains to human beings. The medieval understanding of *ius* entailed acknowledgment of a fixed and defensible sphere of activity whose exercise is independent of external infringement or control. This seems to be precisely what John has in mind when insisting upon the right of free inquiry and determination: "The Academy of the ancients bestows upon the human race the leave that each person by his right (*ius*) may defend whatever presents itself to him as most probable" (ibid., II.22). Or, as he remarks in another passage, "It is a very ancient rule of the Academics that each person may of his own right (*ius*) defend that which presents itself to him as most probable" (ibid.,

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[9] See Cary Nederman, *John of Salisbury* (Tempe: Arizona Center for Medieval and Renaissance Studies, 2005).

VII.6). One's freedom to form one's own judgments derives from the fallible nature of the human mind and the uncertain character of many knowledge claims.

In turn, if we each enjoy a right to draw conclusions and construct arguments regarding those matters open to rational disagreement, then it follows that others (regardless of their status or power) likewise have a duty to respect our thoughts even if they do not endorse them. This is underscored in the *Policraticus* by John's remark that, regarding unsettled issues, "one is free to question and doubt, up to the point where, from a comparison of views, truth shines through as though from the clash of ideas (*rationum collisione*)" (ibid., VII.8).[10] Such a statement suggests that John understands very well the implications of his skeptical philosophy: the quest for truth in matters of practical as well as philosophical import demands the maintenance of openness and dissent. It is the responsibility of the wise person, not to mention the wise ruler or prelate, to uphold and defend the grounds of public debate. The realization of truth is hampered, not aided, by the suppression of divergent positions and the persecution of their adherents.

As a consequence, John maintains a central role for human liberty in his moral and political thought. In the *Policraticus*, he defends a conception of open personal expression that is vast even judged by far later standards. He counsels a doctrine of "patience" for the opinions and deeds of others.

> The best and wisest man is moderate with the reins of liberty and patiently takes note of whatever is said to him. And he does not oppose himself to the works of liberty, so long as damage to virtue does not occur. For when virtue shines everywhere from its own source, the reputation of patience becomes more evident with glorious renown.
>
> (ibid., VII.25)

The patient man respects the liberty of others to state their own honest opinions, and he attempts to improve himself by patiently regarding his fellows. "The practice of liberty," John observes, "displeases only those who live in the manner of slaves" (ibid., VII.25). Free men are reciprocally respectful of the freedom of others, even when they are the objects of criticism. John praises the Romans for "being more patient than others with censure," since they adhered to the principle that "whoever loathes and evades [criticism] when fairly expressed seems to be ignorant of restraint. For even if it conveys obvious or secret insult, patience with censure is among wise men far more glorious than its punishment" (ibid., VII.25). The *Policraticus* supports this claim in characteristic form with

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[10] The phrase *rationum collisione* is also used at VII.6 (ed. Webb, II: 113).

numerous examples of wise people who spoke their minds straightforwardly and of wise rulers who permitted such free expression to occur.

While John upholds a realm of personal discretion in decision-making with which no one may interfere, he also insists that patient endurance of the liberty of others must be matched by a liberty of critical speech. John asserts that "it is permitted to censure that which is to be equitably corrected" (ibid.). While we may not properly force people to do good, we must equally be respected and tolerated when we point out the error of their ways. In other words, if you are free to do wrong, then I must also be free to correct or reprove you. John emphasizes this point: "Liberty . . . is not afraid to censure that which is opposed to sound moral character . . . Man is to be free and it is always permitted to a free man to speak to persons about restraining their vices" (ibid.). John claims that this liberty to censure is not merely a privilege: "It is not necessary to obtain confirmed permission for such remarks which serve the public utility" (ibid.). Freedom to speak one's mind about both personal misconduct and the ills of society – the church as well as temporal communities – follows from the exercise of legitimate liberty (ibid., I.5).

JOHN OF PARIS

The translation of Aristotle's major works of moral and political philosophy into Latin, alongside the rise of the scholastic curriculum of the universities, did not mean an end to the humanistic flowering of "individualism" associated with earlier times. Rather, scholastics from the thirteenth century onward continued to insist upon the individual as a central category of political analysis. Thomas Aquinas, for instance, who is often taken as the quintessential Christian Aristotelian, may nonetheless be read as rejecting the hyper-communalism of Aristotle's political theory, at least in the *Summa theologiae* and in his commentary on the *Politics*. Instead, Aquinas stresses how the goodness of the human will, in conjunction with conscience and reason, might lead individuals to fulfill their natural sociability through knowing and acting upon natural law.[11] Even if Aquinas himself does not always follow through with the full implications of personal autonomy for politics (he did not, for instance, set out a theory of consent to government), many other scholastic authors took up this mantle.[12]

One of the most prominent proponents of the individual's centrality to communal life was John of Paris, a Thomist who attained the status of master of

[11] I follow here the interpretation of Aquinas posited by Mary Keys, *Aquinas, Aristotle and the Pursuit of the Common Good* (Cambridge: Cambridge University Press, 2006).
[12] Brian Tierney, "Hierarchy, Consent and the 'Western Tradition,'" *Political Theory* 15 (1987) 646–54.

arts at the University of Paris, flourishing around 1300. John's major work of political theory, *De potestate regia et papali* (*ca.* 1302), was composed in the midst of the notorious conflict between the French king Philip IV and the reigning pope Boniface VIII concerning their mutual rights over the material goods of the church. John's thought has been located at the root of an intellectual tradition regarding private property and political power that culminates in the seventeenth-century liberalism of John Locke's *Second Treatise of Government*. Although the building blocks of the *De potestate*'s doctrine are largely conventional – in some cases directly adapted from the slightly earlier writings of Godfrey of Fontaines and from Roman law ideas of market exchange – the scenario he constructs is innovative in a manner that presages early modern natural rights theory.[13]

De potestate takes as one of its main themes the differentiation of the types of rights over property that persons of various ranks and statuses (lay versus clerical conditions, secular versus ecclesiastical rulers) may claim. John sharply distinguishes throughout the work between *dominium* (lordship) and *iurisdictio* (jurisdiction), arguing that powers conferred by the former are primary and antecedent in relation to the latter. Thus, a political official (spiritual or temporal) may be able to judge in certain circumstances whether a member of the secular community is putting his property to an unjust use, as this pertains to the realm of jurisdiction. But such judgment does not amount to a denial of the preexisting ownership of the property nor of the rightful control over property exercised by its *dominus*. Rather, John declares, "the temporalities of laymen are not communal" (ed. Bleienstein, p. 82). The earthly goods of non-clerics are rightfully apportioned by some means other than assignment by clergy or princes.

If the authority to use property does not in the first instance derive from a political/legal act or a moral/theological assessment, then whence does it arise? John gives a summary of his answer in Chapter 3 of *De potestate*: "Each is lord (*dominus*) of his own property as acquired through his own industry, therefore there is no need for a single person to dispense lay temporalities in common, since each is his own dispenser to do with his own at will (*ad libitum*)" (ibid., p. 82). This point is developed at greater length in Chapter 7:

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[13] Janet Coleman, "*Dominium* in Thirteenth- and Fourteenth-Century Political Thought and its Seventeenth-Century Heirs: John of Paris and Locke," *Political Studies* 33 (1985) 73–100; "Poverty, Property and Political Thought in Fourteenth Century Scholastic Philosophy," in C. Wenin (ed.) *L'homme et son univers au moyen age* (Louvain-la-Neuve: Éditions de l'Institut Supérieur de Philosophie, 1986) pp. 845–55; Odd Langholm, *Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200–1350* (Leiden: Brill, 1992).

The external goods of the laity are not granted to the community, as is ecclesiastical property, but are acquired by individual people through their own art, labor, or industry, and individual persons, insofar as they are individuals, have right (*ius*) and power and true lordship over them. And each person is able to order, dispose, dispense, retain, and alienate his own [goods] according to his will (*pro libito*) without injury to others, since he is lord. And therefore such goods do not have order and connection amongst themselves nor towards one common head who has them to dispose and dispense, since each one may order his things according to his will (*pro libito*). And therefore neither the prince nor the pope has lordship or the power of dispensing such things.

(ibid., pp. 96–7)

Property is antecedently private and individual, and takes on a communal bearing only by virtue of the will of its owner. Individuals enter voluntarily with one another into an exchange relationship, the existence of which derives its entire legitimacy from the liberty of the participants. As John underscores at the close of Chapter 7 of *De potestate*, "Each one disposes of his own as he wills" (ibid., p. 98). The exercise of this freedom is in accordance with right and in itself harms no one.

But what about the jurisdiction enjoyed by rulers over the just and unjust uses of temporal goods? Does this not constitute a severe constraint on the liberty associated with private lordship over property? John constructs very precisely the connection between individual property and the political/legal authority of both the church and the secular ruler. Jurisdiction is rendered necessary by the entry of private proprietors into voluntary mutual relations with one another:

Because it sometimes happens that the common peace is disturbed on account of such external goods, as when someone takes that which is another's, and also at times because some people, who are excessively fond of their own, do not convey it according to what the needs and utility of the country require, therefore a ruler is instituted by the people to restrain such acts, in the manner of a judge discerning the just and the unjust, a vindicator of injuries, and a measurer of the just proportion owed to each for the common needs and utility.

(ibid., p. 97)

According to John, the temptation on the part of some to override the liberty of others, in conjunction with a failure of self-absorbed individuals to calculate and acknowledge the social costs of the profit they obtain by entering into reciprocal economic intercourse, comprise the only justifications for the jurisdiction of rulers. Hence, only those who antecedently enjoy private property rights can authorize the appointment of a judge and executor over themselves and their goods. If something falls within my exclusive dominion, then only my consent

can confirm jurisdiction over my property upon someone else. John of Paris thus proposes an extensive notion of the free sphere of individual action.

MARSILIUS OF PADUA

The generation of political thinkers following John of Paris continued to reflect on the problem of the limits of clerical as well as temporal authority over the members of the political community. One of the most heralded responses dating from the early fourteenth century was the *Defensor pacis* by Marsilius of Padua, completed in 1324.[14] Although Marsilius is commonly conceived to be an arch-Aristotelian, he in fact rejects much of the communitarian orientation found in the *Nicomachean Ethics* and the *Politics*. Instead, the first discourse of the *Defensor*, which addresses the natural foundations and proper institutions of temporal community, enunciates a quite eclectic doctrine that licenses private self-interest as the source for a thoroughgoing principle of individualized consent to all facets of the exercise of political power. He has powerful reasons for adopting this stance: it permits him to eliminate any claim on the part of the pope or the priesthood to the power to interfere with the earthly lives of Christian citizens or governors, since their spiritual authority does not extend to any temporal affairs.

Marsilius's pursuit of this line of reasoning depends heavily upon his postulation of a sharp distinction between temporal and spiritual realms in the *Defensor pacis*. He acknowledges that human ends "fall into two kinds, of which one is temporal or earthly, while the other is usually called eternal or heavenly" (I.4.3). Temporal ends are for the most part indifferent to spiritual goals. The term 'spiritual,' Marsilius says, "refers to every immanent action or passion of human cognitive or appetitive power" (II.2.5), where "immanent" acts are understood as wholly internal and self-regarding. Immanent acts are spiritual in the sense that they do not transgress the boundaries of the soul, and hence are invisible to human observation and known only to God. By contrast, the temporal activities of a human being, Marsilius believes, are of concern to other people to the extent that they are "transient," that is, have an impact on someone else. Consequently, "transient" acts are the proper object of regulation by the laws and rulers of the political community (I.5.7). When transient behavior is performed in due proportion, it results in benefits to others as well as to oneself. When transient action is excessive, however, it disadvantages another person.

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[14] See Cary J. Nederman, *Community and Consent: The Secular Political Theory of Marsiglio of Padua's Defensor Pacis* (Lanham, MD: Rowman and Littlefield, 1995).

On the basis of this distinction, Marsilius enshrines temporal advantage as a fundamental and entirely legitimate goal of human conduct. Indeed, he establishes "as the starting-point of everything to be demonstrated . . . that all human beings not deformed or otherwise impeded naturally desire a sufficient life, and avoid or flee what is harmful thereto" (I.4.2). Marsilius then quotes Cicero's proclamation in *De officiis* that the basic purpose of all living creatures is self-preservation. The advantage of human beings is achieved by gaining those conditions of existence that confer upon them a physically adequate life. Although Marsilius makes passing mention of the Aristotelian conception of living well, constituted by the exercise of the practical and theoretical virtues, the material sufficiency of human life receives the overwhelming measure of his attention.

Marsilius formulates a reconstruction of the origins of human association and of government that serves as an explanation of both the purpose of civil life and its relation to human nature. The preservation of individuals is achieved most fully and naturally under conditions of human cooperation in the context of an ordered and organized community. Marsilius holds that "human beings came together in the civil community in order to pursue advantage and a sufficient life and to avoid the opposite" (I.12.7). Human desire for mutual advantage grounds communal life in the *Defensor pacis*. The "perfected" community for Marsilius emerges along with the differentiation of the functions necessary for a materially sufficient existence, these tasks being defined by the various arts created by humankind in order to redress their physical infirmities (I.3.2–5). Marsilius thus posits that the commission of "transient" acts is absolutely necessary for human beings to attain a sufficient life. Successful self-preservation demands perpetual interaction between human beings, each of whom makes a particular contribution through the exercise of his specialized task (I.4.5). Marsilius expressly specifies these functions in terms of the occupations necessary to maintain the physical well-being of the community: farmers, merchants, craftsmen, and warriors (I.5.6–9). Since all of these jobs contribute essentially to achieving a sufficient temporal life, none are to be denigrated. These needs and the means to their fulfillment are defined by nature, but the organization of the occupations (or "offices") that perform forms of necessary labor is determined by the community. Thus, all functions requisite for communal and personal welfare have a political dimension, as a result of which Marsilius insists that politics must be inclusive. That is, citizenship in the community is conferred on a functional basis, judged according to the usefulness of various human activities for the meeting of material human needs.

Marsilius intends citizens within the community to take an active role in their own governance, locating popular consent at the center of his theoretical

framework. Such consent arises directly from the functional character of the community. First, all whose interests are served or affected by a community must agree to the conditions of association (that is, law and rulership). Second, having so consented, all such citizens are absolutely bound to obey the law and the determinations made by rulers in accordance with it. In other words, people must individually as well as collectively submit to the terms of their cooperation, after which they can be held strictly accountable for excessive "transient" actions that are detrimental to the advantage of fellow citizens. As a consequence, the *Defensor pacis* holds that the legitimacy of both laws and rulers depends wholly upon their "voluntary" character, that is, the extent to which those subject to their jurisdiction have publicly and overtly consented to their authority (I.9.5, I.12.3). What Marsilius in fact regards as distinctive of citizenship is the ability to express one's will in the political venue, by judging for oneself the validity of prospective rulers and laws. This implies for Marsilius not merely formal, corporative assent, but an extensive privilege on the part of each individual citizen to examine prospective laws and rulers:

> Common measures must be laid before the assembled whole body of citizens for their approval or disapproval, so that if any citizen thinks that something should be added, subtracted, changed, or completely rejected, he can say so . . . For, as has been said, the less learned citizens can sometimes perceive something that must be corrected in a proposed law even though they could not have discovered the law itself. Also, the laws thus made by the hearing and consent of the whole multitude will be better observed, nor will anyone have any protest to make against them.
>
> (I.13.8)

Each and every member of the community reserves to himself final judgment about all matters of public regulation. This is required, Marsilius contends, because a government's very legitimacy depends upon its congruence with the voluntary acquiescence of those over whom it rules. And the only way to assure such congruence is by a prior act of explicit consent on the part of citizens. Then, should the private conduct of some citizen lapse over into an "excessive transient" deed – one that harms another person – the execution of the law by the ruler will be seen to be authorized by the community (including, indeed, the offending citizen himself) (I.12.6).

According to what criteria, what point of reference, do citizens discern the worthiness of legislative measures and candidates for rulership? Marsilius answers that every person correctly and adequately evaluates laws and rulers when he measures them against the yardstick of his own self-interest. Marsilius asserts, "Those matters, therefore, that can touch upon the advantage and disadvantage (*commodum et incommodum*) of everyone ought to be known and heard by

everyone, so that they can obtain advantage and repel its opposite" (I.12.7). Marsilius cleverly recasts a conventional (and highly elastic) dictum of medieval political and legal thought: "What touches all must be approved by all" (*quod omnes tangit ab omnibus approbatur*).[15] In his hands, the vague term *tangere* becomes noticeably concrete: it refers to the material well-being designated by *commodum*. Citizens must be accorded a role in consent to law and government inasmuch as statutory dictates and the execution of those dictates impact their direct interests.

Consequently, the common good for Marsilius comes to be coextensive with the aggregate advantage of each of the individuals within the community. No power may legitimately be imposed upon the polity that is inconsistent with the interests of its citizens. Therefore, by consulting one's own direct benefit in the evaluation of public affairs, one simultaneously discovers the communal benefit:

> The common utility of a law is better noticed by the whole community, because no one knowingly harms oneself. Anyone can look to see whether a proposed law leans toward the advantage (*commodum*) of one or a few [citizens] more than of the rest or of the community and can protest loudly in opposition; this would not be so, however, if the law were to be made by one or a few.
>
> (I.12.5)

Left to their own devices, unchecked by the consent of the body of citizens, people in power will quite naturally and unavoidably create laws and make decisions that will favor themselves. But if every citizen considers a statutory proposal (or prospective governor), and none finds any detriment to his own interests, then the decision must be a good one, since it withstands the ultimate test of the common good as conceived by Marsilius: can this measure harm me in any discernible way? Or will I instead derive some tangible benefit from it? Only when laws and officials are evaluated according to purely individual determinations of personal welfare can a valid realization of the public good be ensured.

WILLIAM OF OCKHAM

Marsilius advocated the cause of the German king (and would-be emperor) Ludwig of Bavaria against the papacy (especially Pope John XXII), eventually entering into the royal court as an advisor. Also present at Ludwig's court was another important figure, the philosopher and theologian William of Ockham. Ockham previously spent several years at the papal court in Avignon under

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[15] On the variety of usages of this slogan, see Gaines Post, *Studies in Medieval Legal Thought: Public Law and the State 1100–1322* (Princeton, NJ: Princeton University Press, 1964) pp. 163–238.

house arrest while his theological writings were investigated for containing heretical errors, during which time he became convinced that the pope himself had slid into heresy. Most philosophers know of Ockham as a leading advocate of nominalism (see Chapters 12 and 48). Fewer people realize, however, that after about 1327, Ockham gave up his philosophical and theological pursuits in order to become a full-time propagandist on behalf of Ludwig, and especially against the papacy. In the following two decades, he produced about a dozen, often lengthy, treatises opposing papal pretensions to earthly power and justifying Ludwig's claim to be emperor.

There is no persuasive evidence that Ockham consciously brought his nominalist logic directly to bear on his political doctrines. But he does embrace several ideas that demonstrate a high degree of regard for the individual, especially in connection with the religious authority of the church and its hierarchy.[16] Thus, unlike Marsilius, who had proposed that the general council formed the supreme and unerring legislative authority within the church, Ockham refuses to accept that a council was any more a necessary witness to truth than, say, the pope or the college of cardinals. Indeed, although Ockham contends that the true church could never die out on earth, he holds that the truth of the faith might reside in a single individual, regardless of social status (or even gender or age!) (*Dialogus* I.5.1–35). Moreover, he countenances individual opposition on the part of any Christian whomsoever – priest or layman, rich or poor, male or female – to notorious (that is, publicly proclaimed) heresy, even if it stretches to the upper reaches of the church's official structure (ibid., I.7.10).

Ockham thus evinces a high level of confidence in the capacity of individuals to form judgments about fundamental truths for themselves, separate and distinct from communities or institutional authorities. His grounding for this seems to be a theory of imprescriptible natural rights and natural liberty granted by God (through nature) to mankind. He insists that "the pope cannot deprive any persons of their right, particularly in that they hold it not from him, but from God or nature or another man; and for the same reason he cannot deprive any persons of their liberties, which were granted by God and nature" (*De imperatorum et pontificum potestate* [*Opera pol.* IV: 287]). Human rights and liberties include *dominium*, of course; both individual possession and the powers of earthly governance are shielded from intrusion by the pope or other religious officials (ibid., pp. 299–301). Yet these rights and liberties also include a considerable freedom of individual understanding in connection with knowledge of religious

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[16] As emphasized by both A. S. McGrade, *The Political Thought of William of Ockham* (Cambridge: Cambridge University Press, 1974), and Janet Coleman, *A History of Political Thought from the Middle Ages to the Renaissance* (Oxford: Blackwell, 2000) pp. 169–92.

and moral truths. God has granted humanity reason and sense, in Ockham's view, so that each person may determine for himself (or herself, apparently) what is required for the sake of one's own salvation. The church may act as a guide, but it lacks any authority to coerce when confronted with persons who shun its direction. This stems from Ockham's conception of the predicament in which the faithful find themselves: on the one hand, all Christians seek the truth; on the other hand, all people are fallible such that no one can establish beyond doubt who enjoys certain access to the truth. Each individual thus possesses, in a sense, the right to be wrong, even in the face of contrary claims by ecclesiastical authorities.

Ockham thereby advocates a method of philosophical and theological analysis that requires suspension of coercive judgment in matters concerning heretical belief. In his view, the onus for demonstrating that an individual's belief stands in error pertains to the person who performs the correction. If an individual who upholds such supposed error clings to it because he does not grasp the manner of his own alleged mistake, it is unwarranted for clerical authorities to punish him via excommunication and for temporal powers to impose earthly penalties upon him (*Dialogus* I.4). In part, this is because prelates (and rulers) themselves are often ignorant and fallible in matters of faith. But, more importantly, Ockham maintains that the only reason one may legitimately employ coercion is to correct a person who explicitly admits that his position is erroneous and still refuses to surrender it – in other words, a person entirely lacking in powers of reason (which he seems to think is rare indeed). The individual who cannot or does not acknowledge that he is in error because he does not accept the reasoning presented to him must be accorded patient forbearance, not be subjected to persecution. To persecute, according to Ockham, is to misuse the corrective power granted to the church.[17] The right and liberty of individuals (including members of the laity) to maintain or refuse a belief until its error or truth is proven to their own satisfaction, even when confronted with the claim of superior political or ecclesial authority, form a centerpiece of Ockham's teaching. He thus pushes medieval thinking about individual autonomy to new and apparently quite extreme lengths.

The thinkers who have been surveyed in the present chapter are usually accounted among the most important figures in medieval Latin political thought. On the one hand, their theories were highly original and sometimes intentionally provocative, inasmuch as they adopted attitudes that were meant to be critical of both secular and ecclesiastical practices. Yet, on the other hand,

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[17] See Takashi Shogimen, "From Disobedience to Toleration: William of Ockham and the Medieval Discourse of Fraternal Correction," *Journal of Ecclesiastical History* 52 (2001) 599–622.

all of the thinkers mentioned (even those suspected or accused of heresy, such as Marsilius and Ockham) based their teachings about the individual and his (or her) role in society upon orthodox and widely endorsed legal and theological principles, such as might be found in canon and Roman law, in Scripture, and in conventional scholastic writings. Thus, it would be misplaced to dismiss ideas of individual autonomy during the Latin Middle Ages as the work of a few cranks or outliers who were at odds with the intellectual mainstream. Rather, these authors represented the extension and application of teachings about the political implications of individual liberty that were firmly rooted in the medieval worldview.

LAW AND NATURE

G. R. EVANS

The sources for what we know of medieval thinking on law and nature include the Church Fathers and scholastic theologians, as well as Roman legal writings, and the somewhat confused cluster of texts that were drawn together in the twelfth and thirteenth centuries to constitute a body of recognized "canon law" for academic study. Of the first importance here is Gratian's *Decretum* from the 1140s, the ground-breaking manual of canon law on which many subsequent treatises and commentaries would rely. These sources show how the classical understanding of a right (*ius*) as the subjective right of an individual contrasts with the characteristically medieval understanding of *ius* as "a system of objectively right relationships."[1] Medieval discussions of these issues pass through a complex set of questions about law and human nature, until the point where thinkers begin to stand away from tradition and ask radical questions. This leads through early modern political thought to a conventionalism that says morality is a mere convention that depends on the interaction between individuals.[2]

DEFINITIONS AND CONCEPTS: 'LAW' AND 'NATURE'

For the clusters of concepts for which we use the modern English words 'law' and 'nature,' a series of Latin terms were used from the ancient world to the Middle Ages, often equivocally, and with a shifting range of meanings.

In one of its medieval meanings, *natura* was 'nature' – the natural world, the Latin counterpart of the Greek *physis*. Boethius, in a passage in *De Trinitate* (ch. 2), uses *naturalis* in this sense. He distinguishes the study of *speculativa*, purely abstract, theoretical matters; *mathematica*, in which things which are

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[1] Brian Tierney, *The Idea of Natural Rights: Studies on Natural Rights, Natural Law and Church Law, 1150–1625* (Atlanta, GA: Scholars Press, 1997) p. 22.

[2] Knud Haakonssen, "The Moral Conservatism of Natural Rights," in I. Hunter and D. Saunders (eds.) *Natural Law and Civil Sovereignty: Moral Right and State Authority in Early Modern Political Thought* (Houndmills, Basingstoke: Palgrave, 2002) 13–26; see esp. pp. 13–14.

really concrete are studied as though they were abstract; and *naturalis*.[3] By this he means what might now be called natural science, which deals with those parts of the universe that can be measured and observed. Boethius's contemporary, Cassiodorus, describes *philosophia* in his *Institutiones* as the study of things human and divine, and natural philosophy as a branch of philosophy "in which any aspect of nature is discussed" (ed. Mynors, pp. 110–11).

Natura also emerged in the patristic period in the Latin West as a synonym for *substantia* or *essentia*. Augustine employs it in this way in the *De Trinitate* in his discussion of the divine "nature" (II.18.35). The driving force here was the need to identify a Latin terminology in which to carry on the heated debate about the number of "natures" and "persons" in the Incarnate Christ which had preoccupied the Greek-speaking half of the empire in the period of the Arian controversy and beyond. Boethius uses 'nature' like this, for instance, in discussing the "two natures" of Christ in *Contra Eutychen* I.

This usage, where *natura* is more or less interchangeable with *substantia* or *essentia*, permitted discussion of "human nature." For example, it is suggested that the nature of the spirit is to be invisible and that of the flesh is to be visible, as Alcuin puts it in the eighth century.[4] In the twelfth century, Aelred of Rievaulx writes within this same frame of reference about the contrast between God's nature and that of human beings. God's nature is *aeternus, intemporalis, incommutabilis*; ours is *mutabilis et temporalis*. God made a way for our nature to become more like his by becoming mutable himself.[5] This usage shades into a somewhat broader sense of 'nature' as a kind of thing or a property, as when Andrew of St. Victor suggests in the mid-twelfth century that "it is the nature of music to make someone who is happy happier and someone who is sad sadder still."[6]

The area of meaning with which we shall be primarily concerned in thinking about law and nature is the first – that of *nature* as the natural world or natural order, and the place of human beings in that natural world, for those things were governed by the *laws* of nature. When David Hume wrote that nature is "blind, impregnated by a great vivifying principle, and pouring forth from her lap, without discernment or parental case, her maimed and abortive children" (*Dialogues conc. Nat. Religion* 11), he was challenging a normative view that had been formed in the classical world of an essentially orderly overflowing of creative power. Plato, for instance, had thought that this flow was an indication

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[3] Other Latin authors use *physica* in this sense – see, e.g., Cicero, *De divinatione* I.110, and Macrobius, *Saturnalia* VII.xv.14.

[4] *Commentaria in S. Iohannis Evangelium* (ed. Migne, *Patr. Lat.* 100: 779).

[5] *De Iesu puero duodenni* 1 (*Opera* I: 249).   [6] *Expositio Hystorica in Librum Regum* 16 (*Opera* II: 57).

of the sheer abundance of the Good, but that the goodness diminished as created things moved further from their origin, the supreme and supremely generous Good. There remained room for a vigorous patristic and medieval debate about the degree to which God planned for his creation and kept control of it, and especially whether there was a great providential plan. Under the influence of Aristotle, later mediated through discussions in Thomas Aquinas, this plan could be seen as involving rules or laws that governed the way nature worked.

Medieval Christian theologians were confident that nature had been created by God with a plan and a shape and an order which, as Genesis describes it, had been disrupted in part by the sin of Adam but never thrown wholly out of divine control. When Alan of Lille wrote the *Complaint of Nature* in the second half of the twelfth century, he personified Nature in a pseudo-classical way, as a goddess-like figure, with a list of substantive attributes that evince this; she is:

> Virtue, rule, power (*Virtus, regimen, potestas*)
> Order, law, end, way, leader, origin (*Ordo, lex, finis, via, dux, origo*).
> (VII/metr. 4)

Nature's "complaints" concern the disorderly behavior of Alan's contemporaries, behavior that was believed to go against nature, such as homosexual acts. Nature's biggest complaint is that human beings, alone in created nature, seek to behave as though they are not subject to nature's laws.

The history of the terminology of 'nature' thus had a strong theological and philosophical emphasis. The vocabulary associated with law – words such as *lex, ius, iustitia* – was also familiar in such contexts from its frequency in the Vulgate Bible, particularly the Old Testament. Marsilius of Padua, for example, recognizes in his *Defensor pacis* (*ca.* 1324) the equivocal way *lex* is used, and he has no difficulty in giving a series of biblical examples to illustrate his point (Dictio I.10). When he takes up the many meanings of *ius*, with particular reference to the contemporary poverty debate (see below, and Chapter 42), the Bible again provides him with a range of examples (Dictio II.12).

The term *iustitia* poses a particular difficulty because it can be rendered in modern English as "justice" or as "righteousness," with the Old Testament connotations of that word. The emphasis in secular classical usage is on justice as a mode of proper *citizenly* behavior, however, rather than on the Judaic notion of the *righteousness* that involves being in a right relationship with God. In a passage well known to medieval authors, Cicero – who became perhaps the most important Hellenistic source for natural law ideas – defines *iustitia* as a "habit of mind" that affords the appropriate respect to each person, while serving the common good (*De inventione* II.liii.160). The citizen is also a good neighbor, and the definition thus provided medieval authors with a basis for

their own comments as Christians, commanded by God to "love thy neighbor as thyself." Alcuin, for instance, takes Cicero's definition and adds to it the observation that *iustitia* protects the worship of God and the laws of mankind and equity in living (*De rhetorica et de virtutibus* 44). These modified Ciceronian echoes persisted into the twelfth century and beyond.[7]

In the thirteenth century, Aquinas defined *ius* as "that which is just," but he knew that it was not as simple as that (*Summa theol.* 2a2ae 57.1). *Ius* in Roman law can refer not only to a concept or a general state of things (as in 'right order') but also a body of legal precepts (*ius civile, ius gentium*), or even a single precept in such a code. It can mean "right" in the sense of a person's legal rights, including personal standing in such matters as being a free man, and it can refer to legal rights over others, or *jurisdiction*. According to Ulpian, "Justice is . . . to assign to each one his *ius*"; it is about getting one's deserts, in the sense of "the just share, the just due, of someone within an established structure of social relationships, varying with each person's status and role."[8] In this sense, the word *ius* could imply disadvantage to an individual as well as the advantages usually associated with having a right,[9] and it has connotations that link it with the key passage of Cicero already cited in the discussion of *iustitia*. The range of possible classical meanings of *lex* matches those of *ius* at a number of points, although *leges* can also be specific measures or standards.[10] Conversely, *ius* often stands in for *lex*, as when authors speak of the natural law as the *ius naturale*.

In the sixth century, Isidore of Seville had provided a number of influential definitions in his short encyclopedia, the *Etymologiae*. Trying to tease out the difference between what is just, law, and custom (*ius, lex, mos*), he suggested that *ius* is the more general word, while *lex* and *mos* are the two species of *ius*. Law may be identified by being written, whereas custom need not be. Custom is what is sanctioned by long use; it is applied as though it were law when written law is lacking (*Etymol.* V.3). Merely writing law down is not enough to make it law, however. Isidore insisted that it has to be authorized, or agreed on in some way. For him, "Law is a constitution of the people by which the more highly born together with the common people sanction something" (ibid., V.10). It is also of no small importance that Isidore was hard to better even as late as the twelfth century, when the academic and practical study of law was taking on a new direction and proceeding with a new energy, in directions which

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[7] For instance, *iustitia*, says Clarembald of Arras, is "the constant and perpetual will to distribute equality" (*Life and Works*, p. 219).

[8] *Liber regularum* 2 (in Justinian, *Digest* 1.1.10 pr. 2 [*Corpus juris civilis* vol. I]). See Brian Tierney, "Tuck on Rights: Some Medieval Problems," *History of Political Thought* 4 (1983) 429–41.

[9] Tierney, *The Idea of Natural Rights*, pp. 16–17.

[10] See, for instance, Aelred of Rievaulx, *Sermo* 43 (*Opera* II: 336).

had not been envisaged in the age of Isidore. The political and constitutional realities in which these definitions were originally framed make it important to try to understand them in context. At the same time, they purport to be of general application and were treated in that way by later authors who relied on them in their own work.[11] Gratian, for instance, relies heavily on Isidore in setting out the basics at the beginning of the *Decretum*. He holds, for instance, that promulgation is constitutive of the making of law, remarking that "laws are instituted when they are promulgated" (P. I d. iv). Aquinas, citing Gratian, agrees that promulgation is part of what defines or makes law (*Summa theol.* 1a2ae 90.4). The law has to be published in order to be law; if it has not been, no one can be blamed for not obeying it. Thus, the person who acts against a law of whose existence he has not been informed should not be treated as an offender.

Summaries and statements of this cursory and often inconsistent sort served less well once the academic study of law began seriously in the twelfth century, with the emergence of universities; nevertheless, the authority of their authors meant that they lingered on in use, out of context, bearing the appearance of philosophical axioms and blithely unaffected by the political realities of lawmaking. Ideas about the nature of law did not depend on the study of the differences between civil and canon law, or of varieties of legal codes and systems in different places.

THE 'LAW OF NATURE' IN THE HIERARCHY OF LAWS

Isidore's starting point was that all laws are either divine or human (*Etymol.* V.2). Laws of nature fall into the divine category and therefore do not change, but human laws vary from race to race, nation to nation, and people to people. Divine law is right (*ius*) in the sense of being "good" (*fas*), while human law is merely right.[12] Isidore suggested that "natural law" should be divided into civil law and the law of nations, by which he had in mind the difference between laws that are appropriate in all societies (*ius gentium*) and those that belong only to particular communities (*ius civile*) (*Etymol.* V.4). Into the first category fall the laws that govern situations involving the laws of more than one jurisdiction – roughly "international law." In practice, this seems to pertain to what happens in time of war, when nations are most likely to find themselves in action on the

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[11] The Carolingian "Isidorian" Decretals are now known to be almost entirely forged, but their attribution to Isidore may have encouraged Gratian and others to look to the genuine Isidore for guidance about the basics.

[12] Ambrose of Milan had also put the law of nature ahead of the creation of particular laws (*De Abraham* I.2.8).

territories and physically within the territorial jurisdictions of other nations; it includes, for example, the rules for the treatment of captives and the conduct of sieges (ibid., V.6), although Isidore also identified a specific military law (*ius militare*) (ibid., V.7).

Aquinas's is perhaps the best-known medieval hierarchical breakdown of the types of law. He distinguishes between four kinds of law: eternal, divine, natural, and positive. *Divine law* is constituted by the moral and legal precepts in the Bible; this is revealed law, the subject of revelations to God's rational creatures.[13] *Eternal law*, in contrast, transcends the natural world altogether, for it existed before God made the natural world.[14] Eternal law governs everything. It embraces God's plan, God's providence, and God's idea of how things are and should be.[15] All rational law derives ultimately from these absolutely fundamental ground rules.[16] This then raises a question: how do we know what this law comprises, when it is not conveniently set out in the codifications of Scripture? Medieval thinkers were familiar with the questions of whether such knowledge could be reached by speculation (reasoning), whether it required divine revelation for us to have any idea of the nature of eternal law, or whether God had arranged for the two sources to work together. (Augustine had even postulated that Plato had some contact with the Old Testament prophets [*De civitate Dei* VIII.11–12].) Part of the point of the need to connect reason and revelation here was that "law" of this kind resembles the laws of physics and metaphysics as much as laws of conduct.

The eternal law is the law by which God does all that he does, and so it includes his will for rational creatures. Aquinas sees this, as Aristotle had, in terms of a teleology – a purpose of completing and perfecting. Hence it guides the *natural law* that governs human behavior.[17] This *lex naturalis* is within us as a "participation of the eternal law in a rational creature" (*Summa theol.* 1a2ae 91.2c). It takes the form of innate principles of rational action, all operating ultimately within the framework of eternal law. For Aquinas, natural law is in rational beings alone. Its link to rationality is important, and it is understood to be divinely implanted.[18] It has been suggested that Aquinas understands this "participation" in the divine as involving both causality (since the eternal law

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[13] The medieval canonists also use *ius divinum* (or sometimes, confusingly, *ius naturale*) to refer to explicit divine commands found in the Bible, such as the Decalogue. See, for instance, the opening of Gratian's *Decretum*. See, too, Tierney, *The Idea of Natural Rights*, p. 22.

[14] See Aquinas, *Summa theol.* 1a2ae 91.4–5 and qq. 98–108.

[15] Norman Kretzmann, "Lex iniusta non est lex: Laws on Trial in Aquinas' Court of Conscience," in J. Finnis (ed.) *Natural Law* (Aldershot: Ashgate, 1991) II: 99–121, esp. p. 119.

[16] Aquinas *Summa theol.* 1a2ae 91.1 and qq. 93.   [17] Tierney, *The Idea of Natural Rights*, p. 25.

[18] As Tierney puts it, "Natural *ius* is called a *facultas* of discerning good from evil with approbation of the one and detestation of the other" ("Tuck on Rights," p. 438), citing other twelfth-century parallels.

is the cause of this natural law within human beings) and likeness or imitation (insofar as it resembles or is analogous with the eternal law, and it is from this resemblance that natural law gets its lawfulness).[19] In accordance with this picture, Aquinas holds that the law of nature cannot change (*Summa theol.* 1a2ae 94.5), and that all virtuous acts are done according to natural law (ibid., 94.3). Importing all this into an Aristotelian teleology, Aquinas takes this inbuilt law of nature to mean that practical reason orientates itself towards the pursuit of the good. Thus every agent acts for an end that has the nature of a good (ibid., 94.2).

Various features of human life fall within the scope of natural law and hence are subject to its reasonable rules. For instance, the sexual union of men and women leading to the birth of children was taken to follow a natural law that imposed upon the parents a duty of raising the offspring. Isidore had set out various such implications (*Etymol.* V.4), and subsequent medieval discussions routinely took up these elements of the natural law. Gratian, for instance, lists much the same *ius naturale* basics – including the union of men and women, procreation and the education of children, the liberty of all equally, and the right to keep things captured on land, sea, or air. The idea that natural law includes "the common possession of all things," found both in Isidore (ibid.) and Gratian (*Decretum* D. 1 c. 7), would have its impact in the later medieval poverty debates (see Chapter 42).

Human or positive (meaning imposed) law is the lowliest in Aquinas's hierarchy. It is devised by humans for their own governmental purposes – that is, for the better ordering of society. Still, the conditions that pertain to the essence of law must be met in framing it (*Summa theol.* 1a2ae 91). Isidore had earlier identified a series of such conditions: the law ought to be upright, just, possible, in accord with nature and local customs, appropriate to place and time, necessary, useful, evident, and written for the general utility of citizens (*Etymol.* V.21).

LAW AND HUMAN NATURE

Cicero began his *De legibus* by reflecting on what nature bestows on humanity, and on its implications for the purpose of life and the way human beings are able to form a natural society. These, he suggests, are the fundamentals that must be clear before any theory of law and justice can be developed (I.5.16). Here, he is consciously posing a challenge to those among his contemporaries who would say that the study of law should begin from actual codes of legislation and not from such philosophical principles. According to Cicero, the deep

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[19] John Finnis, *Natural Law and Natural Rights* (Oxford: Clarendon Press, 1979) p. 399.

questions about the nature of law (*ius* and *lex*) cannot adequately be resolved by considering things at the level of the particular, such as a client's questions about a particular case.

The question "Is this just?," for instance, may raise the particular issue of whether something is lawful, according to positive law, or it may ask the deep question of whether the law in question is itself just.[20] Aquinas, among many others, denies that an unjust law can be law at all. When someone purports to make a law that goes beyond his legitimate powers, the result is not law. It is a form of violence, says Aquinas, and a person should submit to such "laws" only for the sake of avoiding a scandal or disruption. Another kind of non-law would be a legislative act contrary to divine law – for example, a law made by a tyrant encouraging idolatry. There may, in fact, be a duty *not* to obey these unlawful laws. We should obey God rather than human beings (Acts 5:29). This line of argument can be traced back to Augustine, who had also said that what was unjust did not seem to him to be law (*De libero arbitrio* I.5.11). Somewhere behind Augustine, although unlikely to be his direct source, stands Plato's argument in *The Laws* (715B) that enactments that are not for the common interest of the community are not true laws.

What is the relationship between law and morality? For Gratian, natural law is what is found in biblical law and in the Gospels and answers to the rule that you should do to others what you would want them to do to you, for that is "all the law and the prophets" (*Decretum* D. I c. 1, quoting Mat. 22:40). The hard question is whether every sin is or ought to be made a legal offence, or even a crime. Aquinas discusses the possibility of disagreement between morality and law. His position is that morality depends on Christian theology, and that legality depends on what the state legislates for. Here, too, an Augustinian discussion stands in the background. While Aristotle described a society of "political animals," and sees it as a part of the very definition of human beings that they should form societies with structures and laws, Augustine took the view that human society was originally intended by the Creator to work without such constraints, and that it had been made necessary for it to become political only after the Fall. Sin encouraged bad behavior and resulted in the weak needing protection from the strong. Had it not been for the Fall, ordinary human conduct would have continued to be naturally virtuous, and there would have been no need for laws to protect the weak and to keep the strong in order.

[20] Kretzmann, "Lex iniusta non est lex," p. 99, citing H. L. A. Hart, *The Concept of Law* (Oxford: Clarendon Press, 1961) p. 7.

RIGHT REASON, LAW, AND NATURE

Cicero had argued that the nature of law (*natura iuris*) can be understood only in terms of a study of human nature (*De legibus* I.5.17). Accordingly, echoing Aristotle's claim that rationality is central to being human, Cicero takes *lex* to be *ratio* – the reason inherent in human nature and according to which a person ought to direct his actions. On this analysis, law is really *prudentia*, or wisdom *(De legibus* I.6.19). This accords well enough with Aquinas's Christian version of the same basic cluster of ideas. The belief that natural law is innate in human nature and is known by reason rather than biblical revelation also provides a basis for rational assessment of positive law. Positive law ought to be in accord both with what is implied in the eternal and divine law (for example, not committing murder) and also with a generally rational way of behaving (for example, obeying laws that are designed to make life proceed smoothly and for the general good, of which modern examples might be stopping a car at red traffic lights or obeying the speed limit).[21]

Elsewhere, Cicero defined law as "right reason in harmony with nature" (*De republica* III.33). On Cicero's theory, to live in accord with nature one must reason by taking account of the whole plan of nature and continuing to ask whether one's own nature is in harmony with universal nature. That is the way to a happy life (*De finibus* III.7.26). In this way, one can locate in the framework of the natural universe the laws that are its ground rules, such as "adjust what you do to the needs of the occasion, follow God, know yourself, nothing to excess" (ibid., III.22.73). Cicero's idea thus seems to have been that what is reasonable behavior is to be determined by reference to the laws of nature. *Ius* is not a matter of opinion but "constituted by nature" (*De legibus* I.10.30). The just is, however, commonly understood as such, so that all humans as rational beings share the same assumptions (*De legibus* I.12.33). The principles on which a society or state ought to be run likewise owe something to these laws of nature and reasonableness, and Cicero set these principles out in his now fragmentary *De republica*.

The addition of the dimension of sin in Christian discussions made for an important change of emphasis. Augustine, for instance, was influential in getting later generations to accept that sinfulness is irrational behavior.[22] A law is to be obeyed simply because it is just and right and reasonable, and it is appropriate for a rational being to have regard for it; it is not the fact that someone has the naked power to enforce it that makes it lawful. Is there a deep instinctual

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[21] Aquinas, *Summa theol.* 1a2ae 91.3 and qq. 95–7.
[22] See G. R. Evans, *Augustine on Evil* (Cambridge: Cambridge University Press, 1982).

mode of behavior, then, that derives from the very nature of humanity, in its unfallen state, and that these now necessary laws are seeking to restore? Aquinas appears to think so. He puts the thought in Aristotelian terms when he suggests that every agent acts with reference to an end or purpose that is given its "direction" by the good (*Summa theol.* 1a2ae 94.2). Laws should, then, align themselves in a direction that will make those subject to them behave better. Aquinas attempts to deal with the conflict that arises between Aristotle and Augustine from the absence in Aristotle of the Christian idea of sin. Separating the sphere of legal obligation from that of moral obligation,[23] he speaks of the "court of conscience" (ibid., 96.4c) in which the individual can consider for himself whether a particular law is in accord with eternal law, what its authority is, and whether the benefits of a law in terms of its promoting the common good are proportionate to the benefits to the individual.

NATURAL RIGHTS: DOMINION AND JURISDICTION AND THE QUESTION OF PROPERTY RIGHTS

Natural rights fall under the topic of law and nature, partly because of a confusion of usage that bedevils the technical terminology both here and elsewhere. Classical Latin seems to allow *dominium* (lordship) and *ius* (here meaning *right*) to inhere in the same subject: to have lordship over something or someone is also to have rights in or over him or it.[24] The Romans had a concept of power over persons or things, which they called *dominium*,[25] but Roman jurists recognized that the power to enjoy or use one's property is a practical matter (*de facto*), not solely a right. In the case of consumables, for instance, it is far from easy to separate use from the rights attaching to possession.[26] If I have use and enjoyment of your apple by eating it, then there is nothing but the core left for you to possess, and your lordship or control of the apple becomes an empty authority.

The Franciscans' internal disputes after the death of Francis of Assisi prompted a radical rethinking of the ground rules of property rights. In the debates of the high Middle Ages about poverty, some went to great lengths to argue that a member of a religious order who had made a vow of poverty was not necessarily breaking that vow if he had the "use" or "enjoyment" of things without actually owning them. In 1279, the Bull *Exiit qui seminat* of Nicholas III provided a list of

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[23] Kretzmann, 'Lex iniusta non est lex," p. 129.   [24] Tierney, *The Idea of Natural Rights*, pp. 16–17.
[25] A *dominus* did not have a power of usufruct (use and enjoyment) over other persons, however, even
if they were his property.
[26] Tierney, *The Idea of Natural Rights*, p. 151.

aspects to be considered with reference to temporal things: property, possession, enjoyment, right of use, and actual use.[27] The pope said the Franciscans had given up everything but actual use and that this was the way of Christ and the Apostles. Others argued that it was a Christ-appointed law, as some of the Franciscans taught, that the observation of perfect poverty as exemplified by Christ involved renunciation not only of property but also of the "right of use in exterior things" – and even, perhaps, the actual use. Pope John XXII stated in 1323 that this was to be deemed heresy. The right of use was generally acceptable as a solution to all but the most extreme of the poverty questions, although Ockham began to challenge this on the assumption that the right in question is a power; Ockham, like John Wyclif and others in succeeding generations, was wary of anything that seemed to shift all these questions towards an exercise of power that amounted to dominion.[28] (See Chapter 42 for further discussion.)

Behind these refinements loomed still more fundamental questions. How, for example, could one justify the first appropriation for personal use of property taken from a stock of creation God gave to everyone, so that some came to possess what others did not, while those others were deprived even of the freedom to use it? This question was attributed to Augustine in a text quoted in Gratian's *Decretum* (Dist.8.c.1): Do we possess things by divine or human law? By human law, Augustine says. God made one earth, on which live both rich and poor. It is human law that makes the rich rich and the poor poor, and that law is needed only because of sin, which is the origin of personal greed.[29]

The commonly voiced claim that "In times of necessity all things are common" asserts that the poor may rightly take what they need in time of want without committing theft.[30] In a similar vein, Henry of Ghent posed the question of whether someone condemned to death can legitimately flee (*Quodlibet* IX.26). His interest was in the effect of extreme necessity on decisions about moral acts. He distinguishes between different kinds of power that could be exercised by different persons or authorities over the same thing or person. When someone is desperately hungry, he suggests, necessity excuses theft. Does someone have an excuse for running away, then, when condemned to death, or does that person's body belong to the judge? Henry claims the criminal can take away what is necessary to sustain life – which, in this case, is his body.[31]

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[27] *Bullarium Franciscanum*, ed. G. G. Sbaraglia (Rome, 1759–68) III: 404–16.

[28] Tierney, *The Idea of Natural Rights*, p. 29.

[29] The *Decretum* also contains a pseudo-Isidorian item, which says that the differentiation of possessions came about through iniquity (C.12 q.1 c.2). So, for instance, only avarice makes it necessary to protect property from thieves.

[30] See, e.g., Aquinas, *Summa theol.* 2a2ae 66.7. See also Tierney, "Tuck on Rights," p. 436.

[31] Tierney, *The Idea of Natural Rights*, pp. 83–9.

Another question of the same type concerns the right of self-preservation, and whether it is in fact a duty. Franciscans who said they had renounced all rights were attacked for implicitly condoning suicide. More generally, are there rights that cannot be renounced?[32] The answer to that question depends, perhaps, on whether rights derive from the will of an omnipotent God or whether they have simply an internal coherence, and so can change along with societal conventions. The founder of modern natural law theory, Hugo Grotius, would insist on the first, asserting that the laws of nature would hold "even though we should even grant what without the greatest wickedness cannot be granted, that there is no God, or that he takes no care of human affairs."[33]

One of the leading medieval authors who helped focus attention on the conception of *dominium* as lordship over material property was John of Paris. His *De potestate regia et papali* (1302/3) concentrates in this respect on secular sovereignty over temporal things. According to John's contemporary Giles of Rome, there were judges before there were kings, and these judges ruled the people with an authority entrusted to them by priestly powers. Those who became lords (*domini*) either usurped their power or acquired it by this proper route. The only proper way for individuals to possess particular things, however, was by agreement with other people. The "natural" state of affairs is the holding of property in common.[34] Marsilius of Padua also wrestles with the range of meanings of *ius* and *dominium* in his *Defensor pacis*, as he tries to articulate the modes of possible power over things (*Dictio* II.12). Wyclif, in turn, writing the *De dominio divino* as the starting point of an approach to systematic theology, accepts that dominion is in a reciprocal relationship with service, for lords have servants and servants have lords, and this is possible only in the case of rational beings (Bk. I, ed. Poole, p. 6). From these two authors was to flow an important debate running beyond the Middle Ages about the place of dominion in temporal and spiritual affairs and the circumstances in which, by abuse of power, an individual might be deemed to have lost the right of dominion.

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[32] Ibid., p. 79.   [33] Haakonssen, "The Moral Conservatism of Natural Rights," p. 28.
[34] Janet Coleman, "Medieval Discussions of Property: Ratio and Dominium according to John of Paris and Marsilius of Padua," *History of Political Thought* 4 (1983) 209–28.

POVERTY

MICHAEL F. CUSATO

THE EFFECTS OF THE AGRARIAN AND
COMMERCIAL REVOLUTIONS, 950–1300

The seismic economic changes that occurred in Western and Central Europe roughly between 950 and 1300 and known to historians as the Agrarian and Commercial revolutions had profound, long-term ramifications on the life and societal structures of the continent. Indeed, so dramatic were these socio-economic developments that modern Anglo-Saxon historians in particular feel justified in distinguishing the former period from the one that followed: an early from a high Middle Ages. The classic accounts of this transformation of the European mainland relate how, with the cessation of the last of the external threats to the region known as the Great Invasions – the defeat in 951 of the Magyar forces in central Germany by Otto the Great at the Lech River – a period of relative internal calm descended upon Europe.[1] The elimination of open warfare and defensive entrenchment paved the way for a resurgence of agricultural productivity, the renewed movement of trade surpluses across regions, the redevelopment of the old Roman road system, the rebirth of town life (especially in northern Italy and Flanders), the revival of commerce within these urban spaces and, most characteristically, the reemergence of the use of money (coin) as a neutral means of exchange between diverse peoples, with the subsequent development of the concomitant institutions of lending and banking.

The appearance of these interrelated trends profoundly altered the structure of the European economy in a number of ways. First, the sudden upsurge in agricultural and commercial productivity led to a definite but widely uneven increase in the level of economic prosperity for peoples across the region: the

[1] Robert S. Lopez, *The Commercial Revolution of the Middle Ages, 950–1350* (Cambridge: Cambridge University Press, 1976); Carlo Cipolla, *Before the Industrial Revolution: European Society and Economy, 1000–1700*, 2nd edn (New York: Norton, 1980); Norman Pounds, *An Economic History of Medieval Europe*, 2nd edn (London: Longman, 1994).

famous economic boom noted by economic historians of this period. Second, these same events also spurred the evolution of the economy from a manorial-based system decidedly rooted in the countryside to one in which the rural economy began to work more in tandem with and to serve the needs of the new urban centers. Third, this migration from the manor then prompted the transformation of the traditional feudal definitions of the ownership of property. Indeed, by the mid-eleventh century, allodial holdings – that is, independent of strict vassalage – began to constitute the principal form of property.[2] Fourth, these dramatic economic changes, in turn, also had profound repercussions upon the very structure of social relationships whereby the ties between feudal lord, vassal, and serf were no longer as clearly defined as they had once been in the early Middle Ages. For although the vast majority of the population by 1300 still lived out in the country and worked in agriculture, a sufficiently large number of people had migrated from the manor to live closer to or even within the towns themselves (often far from their native regions) so as to significantly alter the ways of identifying and defining one's place in the social fabric. This was particularly true with respect to the peasantry – that largest and most diffuse social class whom we can call "the poor."[3] Indeed, their migration towards the cities was accompanied by a simultaneous development that had been virtually unknown in the early Middle Ages: the problem of economic poverty.

WHO ARE THE POOR?

Using the vocabulary employed by canonists and moral theologians in the thirteenth century, the predominant category used to describe the traditional social relationship of the poor to others is that of *dominus/servus*. The *servus* was one who submitted to a certain number of obligations and possessed rights limited by those who acted as master or *dominus*. The *dominus* was the proprietor: the owner of land and the owner of the *servi* attached to that land. Indeed, he drew revenues from the exploitation of both. The *dominus* was said to possess *dominium* (ownership) over such things. But the *dominus* also possessed jurisdiction: the authority to govern, to mete out justice, to wage war and to levy taxes in return for protecting his *servi/subditi*.[4]

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[2] Janet Coleman, "Property and Poverty," in J. Burns (ed.) *The Cambridge History of Medieval Political Thought* (Cambridge: Cambridge University Press, 1988) 607–48; specific reference here to p. 607. Parts of this chapter are very much indebted to this magisterial article.

[3] On the poor in the Middle Ages, see the work of Michel Mollat, particularly *Les pauvres au Moyen Age: étude sociale* (Paris: Hachette, 1978).

[4] Coleman, "Property," p. 626.

In the Carolingian period, to use the expression made famous by Karl Bosl,[5] the *dominus* was thus a *potens* in contrast to the *pauper*: the one with authority in relation to the dependent and powerless *servus*. The poor man had no rights or weapons; he was usually not a free man and he worked for his survival and that of his family. Thus, in the early Middle Ages, his status as *pauper/impotens* was only in part ascribed to his economic circumstances. Indeed, he (and his family) had a level of subsistence that was provided by − assured by − the manorial system. His status as *pauper* was, in other words, more social than economic: he was poor to the extent that he was dependent on the system controlled by his lord and was powerless to change his social condition. His economic needs were modestly provided for; he and his family lived in neither penury nor destitution.

This definition would change, however, with the economic upsurge of the Agrarian and Commercial revolutions and the options opened to those enterprising and daring individuals who attempted to break free of the feudal ties to the land of the *dominus*. Only then did poverty become a synonym for social dislocation and economic penury. One's social poverty (dependence/powerlessness) now became linked to the real possibility of economic poverty as well (deprivation/indigence). Those who took the risk of forsaking the assurances provided by the manor in favor of a new life in the cities often encountered a lack of employment, ramshackle housing, severe hunger and privation, and the constant threat of theft or physical assault by others of like condition − in short, poverty as we moderns know it.

In a time when agriculture was still the dominant means of subsistence, the poor may be defined − according to the metric proposed by Janet Coleman − as those who do not possess a minimum of arable land sufficient to support a family. In the thirteenth century, for example, a family of four would have required four hectares to survive.[6] Hence, poverty is measured against subsistence: the ability of one to subsist as a human being and to care for one's family. And in spite of the economic boom experienced by some in Western Europe due to the Agrarian and Commercial revolutions, the rise of the commercial economy actually affected in a positive manner only a small minority of peasants, accelerating the social (and now economic) differentiations between rich and poor.

Indeed, beginning with Gratian's twelfth-century *Decretum* − the foundational medieval treatise on canon law − the term *miserabiles personae* came to be used to describe that category of persons in dire need of (and thus worthy of)

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[5] Karl Bosl, "*Potens und Pauper*," in A. Bergengruen and L. Deike (eds.) *Alteuropa und die Moderne Gesellschaft: Festschrift für Otto Brunner* (Göttingen: Vandenhoeck und Ruprecht, 1963) 60–87.
[6] Coleman, "Property," p. 625.

legally sanctioned benevolence. Included here were widows, orphans, and the economically destitute: those who would not have the means to pay to defend or obtain their rights in court. *Miserabiles personae* were those deprived of the protection of the manorial family and whose sudden dislocation to the cities, abandonment of customary sources of security, and resultant material poverty left them solitary and on the edge of survival. According to canon law, *pauperes* were those who had but one right: the right to receive alms precisely because of their situation of penury. Moreover, in a society that recognized authority in degrees (according to rank), the poor were placed at the very bottom of the social scale as those having no authority or power.

Contrasted with this social category were the rich, the *divites*, who were obliged to give alms to these poor. By the twelfth century, oppositional categories such as *nobiles/ignobiles, divites/pauperes*, and *civis/pauper* expressed a social status and value that came to be measured increasingly in economic terms of material possession (the ownership of property) and money – or the lack thereof. The social meaning associated with this economic status included rights-bearing, civic capacity or its opposite – social insignificance and worthlessness. This social disparity between rich and poor was an acknowledged fact by the mid-to-late twelfth century, a fact that was mirrored by two new developments: the creation of charitable institutions in the cities to address the needs of the destitute, and the rise of literature stressing justice for and the rights of the poor.

RELIGIOUS RESPONSES TO THE NEW ECONOMY

The new money economy, with its divergent effects upon rich and poor, also gave rise to a series of religious responses that spurred the creation of new forms of religious life hitherto unseen in Western Europe.[7] On the one hand, when the prosperity enjoyed by the great landowning monasteries during the agrarian revolution led to unprecedented levels of comfort and concomitant religious laxity, some took it upon themselves to seek out lives of greater austerity and spiritual intensity – through a deeper withdrawal into the solitude of the forests, or the creation of small eremitical communities like the Camaldolese or the Carthusians, or the establishment of more rigorous forms of cenobitical living like that of the Cistercians. On the other hand, and at a slightly later moment (in the later eleventh and twelfth centuries), the growing and increasingly visible gap between rich and poor in the cities prompted others (both clerics and lay people

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[7] Lester K. Little, *Religious Poverty and the Profit Economy in the High Middle Ages* (Ithaca, NY: Cornell University Press, 1978).

alike) to call on the whole church to return to the life of the apostolic community as depicted in Acts 4:32–6, in which all goods were shared in common and where no one lived in crushing need. Such groups and individuals, increasingly of lay inspiration by the end of the twelfth century (such as the Waldensians of southern France or the Humiliati of northern Italy), challenged the church – either directly by their preaching or indirectly by the example of their own lives of voluntary poverty – to abandon its wealth and to be attentive to the poor who were now seen as the contemporary face of Christ and his Apostles. Indeed, for such men and women, it was imperative that the church and its leaders come to terms with the new wealth and poverty coexisting visibly and uneasily within the towns of Western Europe. It is not by accident that, by the end of the twelfth and the start of the thirteenth century, this growing disparity between rich and poor was paralleled by the appearance of two other related trends. First, there was the creation and proliferation of the means of charitable assistance available to the disadvantaged and indigent, in the form of hospices, alms-houses, care for lepers, and so on.[8] Second, there was an evolution in the notion of Christian responsibility, from an emphasis on the obligations of charity to the demands of justice, in order to rectify the social conditions that gave rise to such misery in the first place. It is in this environment that canonists and theologians began to address themselves to the moral implications of the problem of poverty and the poor.

THEORISTS OF THE RIGHTS OF THE POOR

While the socioeconomic context of these innovative responses to the new realities of poverty and penury is the expansion of the economy and its attendant (if uneven) increase in prosperity, the theoretical context pivots on the issue of property and the purpose and use of the goods of the earth given by a provident God. This reflection on property was first directed at the church itself: namely, the ownership of property by its bishops and clergy. By the mid-twelfth century, with the revival of the science of canon law from Gratian onwards, canonists had developed a doctrine of property ownership that was consistent with ecclesiastical legislation and the writings of the Fathers of the church in late antiquity, and that also began to take account of the more recent and pointed criticisms of those who were demanding that the church be a more faithful reflection of the early Christian community, with its collective

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[8] See Michel Mollat, "Hospitalité et assistance au début du XIIIe siècle," in D. Flood (ed.) *Poverty in the Middle Ages* (Werl: Coelde, 1975) 37–51.

ownership of goods. They were calling, in other words, for a church that was poorer – in lands, in properties, in wealth – than it presently was.

In the *Decretum*, for instance, just as Peter Abaelard had done in his famous *Sic et non*, Gratian simply gathers together sayings from the Fathers that defended the use and possession of wealth by the church and places them alongside those texts that appeared to condemn private property based on this same apostolic model. The result is a concordance of discordances that, without proposing any definitive resolution, at least lays out the problematic. For Gratian, the human race is ruled by two norms: natural law and what he calls "custom." It is, he says, by natural law that all things are common to all. But the law of custom (that is, what is established by the legal enactments of emperors and kings) does allow human beings to claim some things as their own: mine, rather than yours or ours. The closest Gratian comes to resolving this tension and potential conflict is to state that where the natural law is contrary to customary law, it is the latter that is null and void (see also Chapter 41).

Shortly after, the *Summa Parisiensis* (1159) – a commentary on Gratian's *Decretum* – claims that, in accord with the dictates of natural law, the initial human institution was common property. Rufinus, however, writing around the same time, argues that while some parts of natural law are indeed immutable, others are not necessarily to be construed as morally binding on all people at all times. For him, the common ownership of property is one such example. Hence, the depiction of Christian life in the Acts was a time-bound description; it was not meant to depict a divine mandate for all time (*Summa decretorum* dist. 1 [ed. Singer, p. 7]). The lines for the debate which was to unfold during the next century were thus clearly drawn.

Huguccio, the most important canonist of his day, states in his seminal commentary on Gratian's *Decretum* (probably in the early 1190s) that natural law (and thus natural reason) tells us that all things are common and, therefore, to be shared in times of necessity with all those in need.[9] Huguccio thus (re)introduces two new terms into the medieval discussion of property and the human person: the notions of *ius* (in the sense of natural law but also in the sense of a legal right) and *necessitas*.[10] Natural reason tells us that we should keep for ourselves only what is necessary and then to distribute what is left to our neighbors who

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[9] Huguccio, as cited in Odon Lottin, *Le droit naturel chez Thomas d'Aquin et ses prédécesseurs*, 2nd edn (Bruges: Beyaert, 1931) p. 110. See also Brian Tierney, *Medieval Poor Law* (Berkeley: University of California Press, 1959).

[10] On the principle of extreme necessity, see *Decretum* D. 86 c. 21 and D. 42 c. 1. Cf. Scott G. Swanson, "The Medieval Foundations of John Locke's Theory of Natural Rights: Rights of Subsistence and the Principle of Extreme Necessity," *History of Political Thought* 18 (1997) 403–12 (for the medieval background). For a more recent overview, see Diana Wood, *Medieval Economic Thought* (Cambridge: Cambridge University Press, 2002) esp. pp. 42–68 ("Wealth, Beggary, and Sufficiency").

might still be in need. This is a rather astonishing position, for it heralds a radical shift from the simple notion of charity to the needy – an obligation imposed on all Christians by virtue of their baptism – to the demands of doing justice to the poor. The Pisan canonist, in other words, is calling his fellow Christians to move beyond individualistic acts of succor for the disadvantaged (done perhaps with an averted glance or disdainful look) towards a more sweeping social ethic of distributive (or redistributive) justice.[11]

Huguccio's ideas passed into the *Glossa ordinaria* of Johannes Teutonicus (*ca.* 1215), who likewise affirms that all things are common to all since, in time of need, we know instinctively (that is, by reason) that such things are to be shared out to the less fortunate. Both men, in fact, were building on ideas already present (if hitherto forgotten) in the writings of the early Church Fathers.[12] Authors like Ambrose, for example, stated quite clearly that, in times of necessity, any surplus wealth is to be regarded as common property that is to be shared with those who are in need. Nonetheless, such thinking on the ownership of superfluities never develops into any full-scale theory denouncing the ownership of property *per se*; rather, harking back to Roman law, these medieval commentators simply urge that human beings not use their property "badly," that is, for the satisfaction of themselves alone to the neglect of those in real need.[13]

Authors like Johannes Teutonicus, therefore, are not espousing a theory of the total lack of ownership for clergy and Christians alike.[14] Under pressure from the radical reformers of the age, however, theorists begin to couch the question of ownership (and especially the ownership of goods by the church) either in terms of corporate ownership (by groups of clerics or canons) or, more commonly, in

[11] Cf. Gilles Couvreur, *Les pauvres ont-ils des droits? Recherches sur le vol en cas d'extrême nécessité depuis la Concordia de Gratien (1140) jusqu'à Guillaume d'Auxerre († 1231)* (Rome: Libreria Editrice dell'Università Gregoriana, 1961) and *La pauvreté: des sociétés de pénurie à la société d'abondance* (Paris: Fayard, 1964) pp. 13–37.

[12] As cited by Coleman, "Property," p. 618 n. 37.

[13] For a succinct overview of how property was used in Roman law, see Coleman, "Property," pp. 609–12. Regarding Ambrose, the *Decretum* of Gratian (Dist. 48, pars I, c. 8) cites a famous text on ownership that is attributed to Ambrose (Sermo 81) (cf. Migne, *Patr. Lat.* 187: 247–8). In reality, however, the text is actually a partial Latin translation made by Rufinus of Aquileia (*ca.* 397) of a sermon of Basil the Great (cf. Migne, *Patr. Graeca* 31: 1752A). The important lines are cited, in the truncated Latin version but with a French translation of the original Greek sermon, in Stanislas Giet, "La doctrine de l'appropriation des biens chez quelques-uns des pères," *Recherches de science religieuse* 35 (1948) pp. 67–9. The Latin abridgement in the *Decretum* also appears in an English translation in Tierney, *Medieval Poor Law*, p. 34.

[14] The radical positions in this direction of men like Arnold of Brescia, the fiery canon of the twelfth century, were certainly exceptions to the more measured approaches that were developing among literate clergy and canonists who based themselves less on a prophetic challenge grounded in the gospels than on a careful reading of ecclesiastical law and history (see Coleman, "Property," p. 620 n. 46).

terms of the view that all ownership of ecclesiastical goods ultimately inheres in God or in the poor themselves. Innocent IV (the expert canonist Sinnibaldo dei Fieschi) goes a bit further, stating that since the church is the mystical body of Christ, the property of the church belongs to the whole Christian community (*Apparatus* X.2.14.4). Hostiensis, a canonist contemporary to Innocent, goes further still: ownership (*dominium*) of ecclesiastical property belongs to the body, the *congregatio fidelium*. Hence, the poor and needy are to be supported from the goods of the church because they have a right (*ius*) to this support from the common property of the church. Increasingly, therefore, the arguments in favor of providing succor for the poor pivot on the notions of necessity and rights: a necessity created by the difficult socioeconomic conditions of the day and the God-given right (*ius naturale*) to sustenance grounded in the natural law whereby, in conformity with the will of God, all things are viewed as being ultimately in common. In this light, the use of church property is no longer to be construed as simple charity but as a legal, lawful use of public property whose purpose is the maintenance of the common welfare but most especially the sustenance of the needy poor.

Thomas Aquinas, a Dominican friar, likewise added his voice during the middle of the same century to the discussions on the issues of property, ownership, and the plight of the poor. A member of an order that espoused voluntary poverty (although understood, as we will see, in a way somewhat different from their contemporaries, the Franciscans), Aquinas had chosen this way of life on the basis of certain ideas about the material world. Not surprisingly, he develops a systematic approach to the matter (*Summa theol.* 2a2ae 66). Human beings, he says, have two primary goals: happiness in this life and beatitude in the life to come. The material goods of the earth – be they wealth, property, food, or possessions – are but a means to the achievement of that higher end. They are, in other words, to be subordinated to that goal rather than enjoyed in their own right. Human beings can legitimately and with good conscience own things. But although private property is not wrong, it is a mode of possession that must always be directed towards the higher goal. Indeed, ownership prevents chaos in society: a situation that would ensue if all things were claimed by all people. The goods of the earth, while originally intended for the use of all human beings (*dominium naturale*), eventually came to be construed as possessions. Natural law does not specify how private property should be determined and arranged; historical situations determine distribution. But when the common welfare is at stake, civil law must always regulate property in the interest of society as a whole.

Thus far, Aquinas's view is quite unexceptional. His commitment to a life of poverty – a conception of poverty quite different from what is normal

today – emerges when he considers situations of superfluity. For when there is a superfluity of goods, there can be no justification for their being maintained as private. Natural law teaches that this surplus is owed to the poor. Human needs have to be met with material goods sufficient to sustain life. In short, a surplus can thus be justified only in terms of its social use. Thus, similar to Huguccio, Thomas notes that whenever dire necessity exists, it is permitted to expropriate a surplus held privately by another without being considered a thief. In extreme necessity, a starving person may take what is necessary to free him or herself from imminent conditions of death (ibid., 66.7).

It is in this context – the sustenance necessary for human life – that the matter of alms came to play such a prominent role in the discussions of the twelfth and thirteenth centuries.

ALMS

In his *Verbum abbreviatum* (before 1187), an instruction for preachers and teachers, Peter the Chanter, master at the cathedral school of Notre Dame in Paris, follows up his remarks on the necessity of mercy in society with five chapters on alms. While extolling the heavenly reward that almsgivers will receive in return for the giving of alms, he urges his listeners to give to everyone who is in need, but most especially to the just (ed. Migne, 205: 286–92). That is to say: Peter distinguishes the deserving from the undeserving poor. No such distinction, however, is found in the writings of his contemporary, the Parisian theologian Radulphus Ardens. In the same vein as Huguccio, he states that the poor have a right to the superfluities of the rich. "When we give alms to the poor, we do not give them what belongs to us. Rather, we return what [in fact] belongs to them" (*Homilia* 34, in Migne, *Patr. Lat.* 155: 1787B). Indeed, we use the goods of the earth properly by serving God and neighbor with them. For if we do not distribute to the needy what God has first given us, we create the conditions for their death. In short, by such niggardly acts, we "murder the poor" (*Homilia* 70, ibid., 1932B). All things come from God and all things ought to be given back to him in service to his creatures. As he notes: "let us serve God with his gifts. And let us refer all things back to him who alone is alpha and omega, the beginning and end of all good things."[15] Human beings praise their Creator by the manner in which they take care of the least among us.

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[15] Migne, *Patr. Lat.* 155, 1787B. The same Latin phraseology will be used by a man of vastly different education and temperament – Francis of Assisi – in his Early Rule (*Regula non bullata*), referring, according to the historian David Flood, not merely to "all things" (that is, generically, to everything) but to "all the goods of the earth." See Flood's "Assisi's Rules and People's Needs," *Franzikanische Studien* 66 (1984) 91–104.

Another twelfth-century preacher, Peter of Poitiers (the Victorine canon, d. *ca.* 1216), vividly described to a group of gathered clergy a scene of the starving needy looking at the waste of the ecclesiastical rich. In exasperation, he has them crying out to the churchmen: "What you waste belongs to us!"[16] One cannot imagine that the needy would ever say such things for fear of being deprived of the alms they needed for their own survival; nevertheless, similar expressions of repugnance against the rich would be made at the turn of the next century by the fiery Franciscan preacher, Ubertino da Casale, in his *Arbor vitae crucifixae Iesu* (1305), where the excesses of the clergy (and by this time his fellow Franciscans) would be denounced for stripping the poor Crucified One in the person of his poor, who had a right to be sustained in dignity by creation (I.1).

FRANCIS OF ASSISI AND THE EARLY MINORITE MOVEMENT

Sentiments such as these – whether expressed in the genre of sermons or commentaries on canon law – were quite commonplace in the religious world of the early thirteenth century. To what extent they might have fueled some of the evangelical fervor of the men and women who took on lives of voluntary dispossession and gospel poverty in this period is quite unclear; documentation on such groups as the Waldensians, the Poor Catholics, and the Poor Lombards is all too sparse. Fortunately, we do have a goodly amount of material about the early followers of Francis of Assisi (commonly known as the Poverello, or "little poor one"), the person most closely associated with the life of voluntary poverty. This material is found most notably in the Early Rule of the Franciscan order, the so-called *Regula non bullata*,[17] which shows us that these same ideas were not only prevalent in academic disputations and homiletic instructions but also had penetrated into the lived ideals of those men and women who saw themselves as the new *pauperes Christi* in the thirteenth century.

The Franciscan movement takes its origin and inspiration from the conversion experience of its founder. Francis's famous encounter with lepers outside the city of Assisi in 1205 brought him face to face, perhaps for the first time in his life, with a world of suffering human beings who hitherto had virtually been invisible to him and whom he had been socialized by his upbringing to

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[16] Cited in Jean Longère, "Pauvreté et richesse chez quelques prédicateurs durant la seconde moitié du XIIe siècle," in M. Mollat (ed.) *Études sur l'histoire de la pauvreté* (Paris: Publications de la Sorbonne, 1974) I: 259–60.

[17] *Regula non bullata*, in Francis of Assisi, *Opuscula*, pp. 377–402. A slightly updated critical edition of this text has just been published by Carlo Paolozzi in *Archivum Franciscanum Historicum* 100 (2007) 5–148.

ignore and account for nothing. Through his encounter with these *miserabiles personae*, Francis came to a conception of the universal fraternity of all creatures, in which every human being without exception was seen to be graced with the same inestimable worth and dignity given by God, *fratres et sorores*, one to another. It was in this moment, according to his Testament, that he began to "do penance" – a decision to distance himself from all actions and attitudes that threatened to violate the sacred character of this human fraternity, dividing human beings from each other, placing one over and against the other.[18] He included in such deleterious actions all violence and warfare, the exploitative nature of money,[19] and the hoarding and ownership of property, which serves to increase the hunger and misery of the powerless and voiceless poor.[20] Thus, in a gesture of profound human solidarity, he and his followers decided to live poor among the poor and for the sake of the poor: working as they worked, assisting them in their pain, and calling the powerful of the world to build a society where all human creatures would receive the mercy and justice that creatures of God were due simply by virtue of their creation.[21]

The freely chosen poverty of the early friars – before it came to be narrowed to a legal concept that defined it as the renunciation of ownership – was premised on a positive ethic of creation: namely, that the earth and all within it ultimately belonged to God. No one could rightly claim ownership of it; human beings were its stewards. But they were stewards with a responsibility: to ensure – just as canonists and theologians were insisting – that the resources of the earth were properly used for the good of all, especially those most in need. Indeed, the friars believed that God had so blessed the earth that all men and women could be – and had a right to be – sustained by the resources of creation.

By contrast, the poverty of the early Dominicans had a very different motivation. Cognizant of the failure of the Cistercians, with their retinues of horses and supplies, to win back followers of the dualist Cathar heresy (see Chapter 52) to orthodox Catholicism in the Languedoc, Dominic had become convinced that he and his friars, in order to be persuasive, needed to adopt the same simplicity of dress that characterized the Cathar preachers. For Dominic, in other words, evangelical poverty was more of a strategy for effective preaching than

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[18] See Michael F. Cusato, "The Renunciation of Power as a Foundational Theme in Early Franciscan History," in M. Gosman *et al.* (eds.) *The Propagation of Power in the Medieval West* (Groningen: Forsten, 1997) 265–86, esp. pp. 274–7.

[19] Peter Spufford, *Money and Its Use in Medieval Europe* (Cambridge: Cambridge University Press, 1988); and Wood, *Medieval Economic Thought*, pp. 69–88.

[20] Tierney, *Medieval Poor Law*, pp. 22–44 (although the focus is on the English context).

[21] *Regula non bullata* chs. 1, 7–9 and 14; David Flood, *Francis of Assisi and the Franciscan Movement* (Quezon City, Philippines: FIA Contact Publications, 1989); Michael F. Cusato, "To Do Penance/ *Facere penitentiam*," *The Cord* 57 (2007) 3–24.

an ethic about the proper use of creation. Indeed, this explains why, in the 1250s, the Dominicans could revert back quite easily to the practice of individual poverty and collective ownership: a posture that was more characteristic of canons regular which, in fact, they originally were.[22]

The Franciscans, however, approached the issue of poverty as essential to the very core of their identity: they were poor, using creation on the basis of honest human need, because this was the use of creation intended by God and shown by Jesus of Nazareth. Moreover, this same ethic of creation also sheds light on their understanding of the role of begging in their lives. For although they shared the same ecclesial designation with the Dominicans as mendicant orders, the early Franciscans' understanding of their mendicancy likewise flowed from the same ethic. The early Franciscans went out and begged only when remuneration for their work was not sufficient to cover their needs. Begging, in other words, was not a way of life but an extreme remedy when work did not adequately sustain them. Indeed, the statement in chapter 9 of their Early Rule is one of the most eloquent expressions in the Middle Ages of the right of all human beings, especially the poor, to a basic level of sustenance:

And when it is necessary, let them go for alms. And let them not be ashamed and remember, moreover, that our Lord Jesus Christ . . . set his face like flint and was not ashamed . . . And when people revile them and refuse to give them alms, let them thank God for this because they will receive great honor before the tribunal of our Lord Jesus Christ for such insults. Let them realize that a reproach is imputed not to those who suffer it but to those who cause it. Alms are a hereditary right and a justice due to the poor that our Lord Jesus Christ has acquired for us.

(*Regula non bullata* ch. 9)

Unschooled though most of them were, their Early Rule captured the very essence of the reflections on the same subject by the greatest theologians and canonists of their age. The difference is that they not only theorized about the intention of creation, but they lived it every day among the poor as a matter of conscience and conviction. Accordingly, when the proper understanding of mendicant poverty became controversial in the later thirteenth century, it was primarily a dispute between Franciscans. Consequently, the many treatises

[22] Priests in the order of canons regular take a vow of poverty but own things in common (cf. Acts 4:32–5). The transition to a more thoroughgoing form of poverty occurred, according to early Dominican and Franciscan hagiography, when Dominic, upon meeting Francis *ca.* 1220, decided to embrace the latter's following of absolute poverty. This shift from the early Dominican approach, however, was never fully embraced by the order. The abandonment of this approach, and the return to the practice of common ownership is associated with the generalate of Humbert of Romans (1254–63).

written on this topic (with its wider ramifications for issues such as ownership, use, and property) were also largely written by Franciscans.

THE DISPUTE OVER FRANCISCAN POVERTY

With the entrance into the Franciscan order of an increasing number of clerics from outside the Spoleto Valley, especially after the death of Francis in 1226, the friars began to redefine and refine – to the great dismay of the early companions of the saint – the meaning of their poverty.[23] Trained in the schools and steeped in the categories and distinctions of law, these friars came to see their uniqueness within the church as consisting in their vow of *gospel* poverty, which they defined as absolute poverty in the sense of the total renunciation of the legal ownership of all things. The papacy of Gregory IX was particularly obliging in this regard – in the bull *Quo elongati* (1230) – by articulating this understanding in legal terms through the famous distinction between *dominium* (which the friars renounced) and *usus* (which they retained).[24] Yet if the friars renounced *dominium*, who then held it over the goods they used? In *Ordinem vestrum* (1245),[25] Innocent IV declared that the ownership of the friars' goods would henceforth be retained by the papacy itself.

William of St. Amour and Gerard of Abbeville, mid-thirteenth-century secular masters at the University of Paris (that is, masters unaffiliated with any religious order), contested these distinctions on legal grounds, claiming that *usus* and *dominium* were not in fact separable with respect to consumables. As such, not only were the friars hypocrites (professing to have given up all things while using all things) but – more to the point – their justifications for their life were insupportable in the law.[26] In defense of the Franciscan claim, Bonaventure, in his *Apologia pauperum* (1269), claimed that the friars had indeed renounced all *dominium* (*proprietas, possessio, ususfructus*, and *usus iuris*) and retained only the right of *usus simplex*: the use of a thing necessary for life, or the use of the

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[23] The recasting of the meaning of poverty, in conjunction with the acceptance of new and important ecclesial roles by the clerical friars in response to the desires of the papacy, progressively resulted in the abandonment of the original social location of the friars among the lesser members of society (the *minores*) and prompted a severe reaction to these changes among the companions of Francis, who steadfastly remained well outside the cities in their poor and remote settlements (*eremi*). This is the root of the struggles within the Franciscan order throughout the rest of the Middle Ages.

[24] *Quo elongati*, in G. G. Sbaraglia (ed.) *Bullarium Franciscanum* (Rome, 1759–68) I: 168–70.

[25] Ibid. I: 400–2.

[26] William's specific contributions to the debate have been edited by Andrew Traver, "William of Saint-Amour's Two Disputed Questions *'De quantitate eleemosynae'* and *'De valido mendicante'*," *Archives d'histoire doctrinale et littéraire du moyen âge* 62 (1995) 295–342; see also the *magnum opus* of Gerard of Abbeville, *Contra adversarium perfectionis christianae*, which became the touchstone for Bonaventure's response in the *Apologia pauperum*.

necessities of life (11.5; *Opera* VIII: 312a). Simple use concerned consumables such as clothing, shoes, food, dwellings, and books. Such use of goods, however, did not allow the friars to buy, exchange, or lend anything since, in their total renunciation, they had also given up all legal right over everything. Indeed, Bonaventure likens the friars to children who use a father's goods through the right of *peculium*, the use of a thing without having legal possession or ownership (ibid., 11.9). For the friars, that ownership was invested in the church (in general) or the pope (in particular).

Nicholas III, in his famous bull *Exiit qui seminat* (1279), extends Bonaventure's line of thinking, defending the friars' right to use the necessities of life without ownership (*usus simplex*) but by employing a term – *usus facti* – that was legally neutral, implying that the friars had been (implicitly) granted permission (by the owner) to use such things without claiming any right over them.[27] The Franciscan argument, in other words, addressed the legal questions of their opponents by avoiding them. This would become the standard Franciscan response until William of Ockham took up the question once again in the 1330s.[28]

Doubts about the legitimacy of the Franciscan position nonetheless persisted; indeed, it would take another pope with expert legal training – John XXII – to expose the latent contradictions in the Franciscan position. John was no friend of the Franciscans. Indeed, his theological formation led him to have a more natural affinity to the Dominicans and their theologians.[29] As archbishop of Avignon during the debates in 1309–11 over the observance (or non-observance) of poverty between the Spiritual Franciscans and the leadership of the Order,[30] John had become increasingly disenchanted with the internal squabbling between the two factions, as well as by the legal imprecision of their position on using goods without any right to do so. Like William of St. Amour before him, he regarded the distinction between *dominium* and *usus facti* to be legally impossible, especially in relation to consumables. Thus, when the issue of Christ's poverty was brought to him as pope for adjudication in 1321 (in the context of a theological debate between a Dominican inquisitor

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[27] Sbaraglia, *Bullarium Franciscanum* III: 404–16. See Virpi Mäkinen, "The Franciscan Background of Early Modern Rights Discussion: Rights of Property and Subsistence," in J. Kraye and R. Saarinen (eds.) *Moral Philosophy on the Threshold of Modernity* (Dordrecht: Kluwer, 2005) 165–80.

[28] For Ockham, a right (*ius*) was a licit power of using; it was distinct from *usus facti*, which was simply an *actus utendi* (an act of using), such as the action of eating, drinking, riding a horse, wearing clothes, or dwelling in a place. Such use was not to be construed as a right; it was the use of an object in which the user claims no right or dominion in the act of using. See his *Opus nonaginta dierum* chs. 2 and 4 (*Opera politica* I: 302, 335–6).

[29] It was during the pontificate of John XXII, in 1323, that Thomas Aquinas was canonized.

[30] David Burr, *The Spiritual Franciscans: From Protest to Persecution in the Century after Saint Francis* (University Park: Pennsylvania State University Press, 2001).

and Franciscan lector), the stage was set for John's famous series of bulls against the Franciscan notion of absolute poverty.[31] By claiming use without the right of use, the friars' way of life, he claimed, was neither just nor based on right; it was, therefore, illicit. By contrast, the Dominican approach to evangelical poverty, which had distanced itself from the renunciation of the ownership of all things and contented itself with limited communal possession, avoided such pitfalls of legal nonsense.

What John was ruling against, however, was not in fact the early Franciscan notion of poverty but rather the narrowing of that original concept to a legal – and ultimately untenable – construct. This lies quite far away from the original understanding of poverty, which had been grounded in an ethic about the use of the goods of the earth and its relationship to the life of the real poor of the world.

THE RIGHT TO SUBSISTENCE

These arguments over *dominium* and *usus* in the Franciscan poverty controversy rest on a fundamental question concerning involuntary poverty and hunger: namely, can a human being, friar or not, ever renounce the right to subsistence? Can a friar claim – as some Franciscan theorists were claiming – that having given up not only all *dominium* but also all right (*ius*) to *dominium*, they have also given up all rights, even those to subsistence? This logical extension of the Franciscan position as it had been articulated by Bonaventure seemed to many thinkers outside the Franciscan order to be extreme, and to some nonsensical.

Nicholas III had seen the problem and, while supporting the right of the friars to renounce all *dominium*, tried to address the issue more reasonably in *Exiit qui seminat*:

> And . . . the brothers, like anyone else, in the pinch of extreme need, would still have available to them the so-called right of existence – that is, to provide for their natural sustenance – a path conceded to every person in the grip of dire necessity, since such a condition is exempt from any law.
>
> (*Bull. Franc.* III: 408)

Both Henry of Ghent and Godfrey of Fontaines, secular theologians who contested the more radical claims of Franciscan renunciation, echoed this more reasonable approach while insisting that, in the matter of consumables (sustenance), one cannot possibly surrender the right (*ius/dominium*) to use such things. Godfrey articulates this objection in *Quodlibet* XII.9:

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[31] *Quia nonnunquam* (Sbaraglia, *Bullarium Franciscanum* V: 224–5); *Ad conditorem* (ibid. V: 233–46); and *Cum inter nonnullos* (ibid. V: 256–9).

From this it follows, however, that no one can in this way renounce temporal goods, since in extreme necessity anyone has a right to use (*ius utendi*) temporal goods to the extent that is sufficient for one's sustenance. No kind of perfection whatsoever will demand or permit someone to renounce this right (*ius*) and *dominium*. Thus, a person who cannot renounce the use of some thing should not [do so]. Similarly, in such a case, one cannot or should not renounce the *dominium* or faculty or right of using (*ius utendi*) those things.

(*Phil. Belges* V: 143)[32]

Everyone has a right to subsistence – a right that he or she can never renounce. This applies to the mendicant orders because it applies to all members of society.

The profound socioeconomic changes in Europe that were a result of the Agrarian and Commercial revolutions not only prompted a slow migration of the peasant classes into revitalized towns and villages but also spawned a new socioeconomic reality: poverty in its modern cast of privation, hunger, and misery. By the mid-twelfth century, theologians attempted to address this new social reality, eventually confronting the vexed problem of a creation that was intended by God for the sustenance of all, but that historically has never fulfilled its original promise. Still, some writers – and such figures as Francis of Assisi – insisted that humanity must do better; that creation ought to be able to sustain its creatures; and that those with power ought to strive for this higher end. By the end of the Middle Ages, the right to subsistence had been recognized as an absolute right of all human beings.

[32] See Virpi Mäkinen, "Godfrey of Fontaine's Criticism concerning Franciscan Poverty and the Birth of Individual Natural Rights," *Picenum seraphicum* 19 (2000) 69–85; and "The Rights of the Poor: An Argument against the Franciscans," in M. Korpiola (ed.) *Nordic Perspectives on Medieval Canon Law* (Helsinki: Matthias Calonius Society, 1999) 41–9.

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JUST WAR

FREDERICK H. RUSSELL

Just war theories of any age have the difficult dual purposes of restraining and justifying violence. Augustine's thought, crucial for medieval Christian theory, reflected both purposes, but was casual and unsystematic. Medieval (and later) thinkers in the Latin West tried to give his scattered comments a specious doctrinal precision, packaging and repackaging the few familiar Augustinian phrases in ways that make it difficult to determine when a real shift in thought has occurred. For instance, the basic Augustinian criteria for just war were just cause, proper authority, and right intention, but agreement on these superficial generalities often masked real differences of medieval opinion.

Medieval theorizing was made more complex by the fact that warfare was not clearly distinguished from other forms of legitimate violence. Moreover, the sovereign state was supplanted by the decentralized lordships of feudalism, whereby every feudal lord had the right to use violence in his own defense. It was only when sovereign states with their monopoly of legitimate violence reappeared in the thirteenth century that something like Augustine's idea of the just war could reemerge. The internal tensions in this theory between a suspicion of all physical violence and its ardent support are best seen in the halting justification of the Crusades. Churchmen were leery of involving the church too directly in bloodshed, and yet they championed the Crusades. That they had no term to approximate 'Crusade' indicates their reticence, however, and so they had trouble including the Crusades within their rubric of just war. This is just one indication that the best minds of the Middle Ages did not devote sustained and systematic reflection to the problems of warfare. Even so, their views have had a lasting impact on modern thinking about the topic.

THE AUGUSTINIAN BACKGROUND

Medieval just war theory is encapsulated in Augustine's four–word phrase: *iusta bella ulciscuntur iniurias*, "just wars avenge injuries."[1] Augustine's actual wording, from a minor biblical commentary, is "just wars are accustomed to be defined as those that avenge injuries." This phrasing indicates how tentative he himself considered his definition; it was others who later rendered it definitive. Augustine had an ambivalent set of precedents to work with. Aristotle applied the term "just war" to wars of Hellenes against non–Hellenes, while Cicero added a legal dimension by saying that just wars were to recover lost goods (*pro rebus repetitis*), and to repel or punish an enemy (*De officiis* 1.11.36; *De republica* 2.23.35). The Old Testament describes the wars of the Israelites as justified by God, and in the New Testament Christ had used violence and yet had counseled non–violence. The early church witness was primarily pacifistic, but after Constantine the Church Fathers justified participation in warfare. The Manicheans advocated a rigid pacifism. Out of these countervailing vectors, Augustine cast

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[1] *Quaestiones in Heptateuchum* 6.10. Much of this chapter is based on my *The Just War in the Middle Ages* (Cambridge: Cambridge University Press, 1975); the discussion of Augustine is found on pp. 16–26. Literature on the just war, both historical and systematic, is voluminous and of varying quality. Sometimes a philosophically rigorous theory makes for bad history, and vice versa. More historical treatments include David Bachrach, *Religion and the Conduct of War c. 300–1215* (Woodbridge, Suffolk: Boydell Press, 2003); Jonathan Barnes, "The Just War," in N. Kretzmann *et al.* (eds.) *Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 771–84; James Johnson, *Ideology, Reason, and the Limitation of War. Religious and Secular Concepts, 1200–1740* (Princeton, NJ: Princeton University Press, 1975), and *Just War Tradition and the Restraint of War. A Moral and Historical Inquiry* (Princeton, NJ: Princeton University Press, 1981); James Muldoon, *Popes, Lawyers, and Infidels: The Church and the Non-Christian World, 1250–1550* (Philadelphia: University of Pennsylvania Press, 1979); Yasuaki Onuma, *A Normative Approach to War. Peace, War and Justice in Hugo Grotius* (Oxford: Oxford University Press, 1993). More systematic treatments include Jean Bethke Elshtain (ed.) *Just War Theory* (New York: New York University Press, 1992); National Conference of Catholic Bishops, *The Challenge of Peace: God's Promise and our Response* (Washington, DC: United States Catholic Conference, 1983), my assessment of which is "The Historical Perspective of the Bishops' Pastoral Letter: The View of One Medievalist," in C. J. Reid, Jr. (ed.) *Peace in a Nuclear Age: The Bishops' Pastoral Letter in Perspective* (Washington, DC: Catholic University of America Press, 1986) 86–97; Oliver O'Donovan, *The Just War Revisited* (Cambridge: Cambridge University Press, 2003); Paul Ramsey, *The Just War: Force and Political Responsibility* (New York: Scribner, 1968); William Stevenson, Jr., *Christian Love and Just War: Moral Paradox and Political Life in St. Augustine and his Modern Interpreters* (Macon, GA: Mercer University Press, 1987); Michael Walzer, *Just and Unjust Wars: A Moral Argument with Historical Illustrations* 4th edn (New York: Basic Books, 2006). The state of the question is in Richard Sorabji and David Rodin (eds.) *The Ethics of War: Shared Problems in Different Traditions* (Aldershot: Ashgate, 2006) esp. ch. 1. For a recent anthology, see Gregory Reichberg *et al.*, *The Ethics of War: Classic and Contemporary Readings* (Indianapolis, IN: Wiley–Blackwell, 2006). For Augustine, see R. A. Markus, "Saint Augustine's Views on the 'Just War'," in W. J. Sheils (ed.) *The Church and War* (Oxford: Oxford University Press, 1983) 1–13; Herbert Deane, *The Political and Social Ideas of St. Augustine* (New York: Columbia University Press, 1963) ch. 5; and Alan Watt, "Which Approach? Late 20th Century Interpretations of Augustine on War," *Journal of Church and State* 46 (2004) 99–113.

the die for what later becomes the prevailing medieval view: that war might be just.[2]

Augustine's first task was to harmonize the evangelical precepts of patience with Roman legal notions, and to situate wars within God's providence. On his view, war was both a consequence of sin and a remedy for it. The real evil in war was not killing in and of itself, but rather the violence, cruelty, greed, and desire for domination that went with it.[3] (Later this would fall under the broad category of "intention.") Wars punished peoples for sins and crimes – even those unrelated to the wars themselves. Even wicked people could serve providence by punishing the sins of other peoples. War was also understood as an instrument of peace;[4] the just warrior restrained sinners from evil, thus acting against their will but in their own best interest.[5] Punishment of evil-doers that prevented them from doing further wrong was an act of love. The precept "resist not evil" (Matt. 5:39) did not prohibit wars, for the real danger was not military service itself but the malice that often accompanied it; Christ's command to "turn the other cheek" (Luke 6:29) referred to the inner disposition of the heart (*praeparatio cordis*), not to the outward deed. Love for one's enemies did not preclude a "benevolent severity."[6] By this distinction between inward attitude and outward behavior, Augustine sought to reconcile war with the teachings of the New Testament. This problematical reconciliation was generally accepted in the Middle Ages.[7]

Augustine required a just war be waged on legitimate authority. Either God or the ruler had the responsibility to decide whether a war was just, and soldiers alone were the proper officials for waging war.[8] Since obedience to kings was a general human convention, Augustine advised a soldier to obey even a sacrilegious king, and to fight even an unjust war unless the ruler ordered deeds that clearly violated divine precepts.[9] When an official killed on orders, he was not guilty of murder, and if he disobeyed an order to kill, he was guilty of treason (*City of God* I.21). Augustine thus absolved the individual soldier of moral responsibility for his official actions.

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[2] See Russell, *Just War*, pp. 8–18, and Louis J. Swift, "Augustine on War and Killing: Another View," *Harvard Theological Review* 66 (1973) 369–83.

[3] *Contra Faustum Manicheum* 22.74: "Desire to harm, cruelty of punishment, implacable intent, severity or rebellion, the desire for domination, these are what are culpable in war."

[4] *De civitate Dei* XIX.12–13, 15; *Enarrationes in Psalmos* 73.7–8; *Contra Faustum* 22.75; *Epist.* 139.6.

[5] *Contra Faustum* 22.74, 78; *Epist.* 138.2.14.

[6] *Sermo* 302.15; *De sermone Domini in monte,* 1.19.59; 1.20.63; *Contra Faustum* 22.75; *Epist.* 47.5; *Epist.* 138.2; *Epist.* 189.4.

[7] I attempted to deal with this in my "Love and Hate in Warfare: The Contribution of Saint Augustine," *Nottingham Medieval Studies* 31 (1987) 108–24.

[8] *Contra Faustum* 22.74–5; *Quaestiones in Heptateuchum* 6.10.

[9] *Confessiones* 3.8.15; *Enarrationes in Psalmos* 124.7.

Whenever Augustine discussed authority he naturally turned to God himself. The *City of God* enumerated instances in which divine authority made exceptions to its own prohibition on killing. Some men waged war in obedience to a direct divine command while others, acting in conformity with God's ordinance, put wicked men to death (ibid.). Divine sanction of the right to punish wickedness was Augustine's strongest justification of the right to wage war. Nowhere is Augustine's critique of early Christian pacifism clearer than in his treatment of wars endowed with a divine purpose.

Augustine's just war did not distinguish between offensive and defensive warfare. Although a simple war of conquest was unjust, the concept of avenging injuries rather than defense was the starting point for every justification of war. In medieval retrospect, this expansion of the just war would also draw on Augustine's acceptance of religious persecution. Since wickedness includes improper belief, Augustine saw a divine purpose in punishing deviation from orthodoxy. Although, unlike his later interpreters, he never discussed warfare in this context, his justification of persecution shared common elements with it. He concluded that church authorities had both the right and the duty to seek imperial coercion against the Donatist heretics,[10] and he saw punishment of heretics as a form of charity:[11] in applying coercion to heresy, the church imitated God himself (*Epistle* 185.6.23). The clergy is able to compel people to the good,[12] but in so doing they must seek the aid of the emperors, who serve God by chastising heretics.[13] Thus, Augustine established the rationale by which medieval prelates appealed to secular authorities for aid against enemies of the church.

While "just wars avenge injuries" appears merely to echo Cicero's "recovery of lost goods" account, medieval interpretations of the phrase wandered between that narrow, Ciceronian view and a broader, more theocratic view. The narrow view required a clear violation of preexisting rights of the injured party, and was limited to redress of grievances and compensation for losses, a return to the *status quo ante bellum* akin to compensatory damages. Theoretically, at least, the broader interpretation saw the just war as a punishment comparable to punitive damages and unlimited in its use of violence, for it avenged the moral order. Sins against God as well as crimes could be punished. Any violation of God's laws, and any violation of Christian doctrine could be seen as an

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[10] See Deane, *The Political and Social Ideas of St. Augustine*, ch. 6, and my "Persuading the Donatists: Augustine's Coercion by Words," in W. Klingshirn and M. Vessey (eds.) *The Limits of Ancient Christianity. Essays on Late Antique Thought and Culture in Honor of R. A. Markus* (Ann Arbor: University of Michigan Press, 1999) 115–30.

[11] *Epist.* 93.2, 6, 8.; *Contra Epist. Parmeniani* 3.1.3; 3.5.26.; *Epist.* 173.2.

[12] *Contra Gaudentium* 1.25.28; *Sermo* 112.8.

[13] *Epist.* 87.8; *Epist.* 185.7.28; *Epist.* 93.3.9–10; *De catechizandis rudibus* 1.27.53.

injustice. Furthermore, punishment of the enemy population could be inflicted without regard for the distinction between soldiers and civilians, guilty and innocent.

Coupled with the concept *to avenge injuries*, the appeal to divine authority enabled the later development of holy wars and Crusades within the just war. Underwritten by divine activity, Augustine's just war became a more multi-purpose institution than the Roman just war. Moreover, a divinely inspired just war could be linked to the Pauline derivation of ruling authority from God, so that wars to defend righteousness could be waged by rulers even without an express divine command.

In reality, Augustine's thoughts on the just war were only a minor theme in his thought and never systematized, constituting not so much a coherent position as a cluster of ideas, grouped around the *avenging injuries* concept. Not surprisingly, there were unresolved tensions. On the one hand, he lamented at greater length than indicated here the moral evils of warfare in general, and the faulty justice that it can at best accomplish. On the other hand, he gave grudging acceptance to just warfare under certain restrictions. Until the power of love overcame the love of power, just wars would remain a sad necessity, often justifiable, but never fully just. It is ironic that the founder of Christian just war thinking so hated warfare. Augustine's medieval successors in just war thinking often transformed his reticence into enthusiasm for the just war.

ROMAN LAW

There was little just war theory in the early Latin Middle Ages. But with the revival of learning and the rise of universities in the twelfth century, three disciplines emerged that considered these issues in detail: Roman law, canon law, and theology.

The Roman lawyers or Romanists "glossed" or commented upon Justinian's *Corpus juris civilis*, beginning in the late eleventh century. The University of Bologna was especially prominent in this movement. One of its main leaders from the late twelfth century was Azo, followed by Accursius (who produced a massive *Glossa ordinaria* [*ca.* 1230]), and then by the post-glossators or commentators. The ancient Roman hostility to barbarians, pagans, and heretics endured during this period, with Azo treating all those who deviated from orthodoxy – such as heretics, Jews, pagans, and infidels – as liable to violent punishment for their beliefs alone; Accursius also compared heresy to treason.[14] Both of these opinions enriched the canonists' later justification for the Crusades.

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[14] Azo, *Summa Codicis*, to Cod. 1.11; Azo, *Lectura in Codicem*, to Cod. 8.4.7 v. *vel apud homines quoslibet*; Accursius, *Glossa ordinaria*, to Cod. 1.5.4, v. *subire*.

The primary concern of the Romanists was to define the legal conditions of belligerency, and so they propounded more a doctrine of licit war (*licitum bellum*) than of just war. Wars were justified according to the *ius gentium*, that complex of rights observed by all peoples.[15] The Romanists insisted that no hostile encounter could be licit without public authority. When public authority was shared among many feudal lords, most Romanists concluded that only the emperor could legally wage war; the *Libri feudorum* (*ca.* 1170)*,* however, obliged a ruler to proceed judicially to end any *guerra* or war between his subordinates (II.27.8). Feudal custom required a vassal to aid his lord in a *guerra*, but what if that *guerra* was unjust? The Romanist debates were inconclusive. They distinguished between three distinct levels of licit warfare: the Roman just war, the *guerrae* of kings, lords, and vassals independent of the Holy Roman Emperor, and, more hesitantly, just wars in defense of the *patria* by kings who commanded the primary allegiance of all their feudal and non-feudal subjects.[16] Medieval Roman lawyers also had to deal with the complex of legal rights to inflict private violence that had developed with feudalism and were not directly dependent on the Holy Roman Emperor. Private persons had a limited right of self-defense in Roman law, for "all laws and rights permit to defend against force with force."[17] This, however, was not a war, and so such defense must be done immediately (*incontinenti*), before turning to other pursuits,[18] and be done with moderation to prevent vengeance.[19]

<div align="center">CANON LAW[20]</div>

The basic text of canon law was Gratian's *Decretum* (*ca.* 1140), a systematic collection of legislation and opinions. The just war was central to Gratian, as it was not to Augustine. Gratian embeds war within other forms of coercion. Augustine's "inner disposition of the heart" becomes the hinge upon which all his discussions turn, as when he describes the moral dangers of greed and love of violence faced by knights (C. 23 q. 1 *passim*). His account of the just war has two fundamental components: authority and an injury to be avenged. Quoting first Isidore of Seville's definition of the just war as one waged on formal declaration to recover lost goods or to repel and punish enemies (*Etymologiae* 18.1.2–4), and then the Augustinian definition cited at the start of this chapter,

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[15] Taken over via Isidore by Gratian, *Decretum* D. 1 c. 9.

[16] See Gaines Post, *Studies in Medieval Legal Thought* (Princeton, NJ: Princeton University Press, 1964) pp. 341–3, 445–8, 473–81.

[17] *Corpus iuris civilis*, Digest 9.2.45.4; taken over via Isidore of Seville by Gratian, *Decretum* D. 1. c. 7.

[18] *Corpus iuris civilis*, Digest 43.16.3.9.   [19] Ibid., Codex 8.4.1.

[20] For the structure of canonists' debates, see James Brundage, *Medieval Canon Law* (London: Longman, 1995).

Gratian proposes a definition that combined elements of both: "a just war is waged by an authoritative edict to avenge injuries." To prevent this definition from justifying vengeance, Gratian appeals to authority – wars should be waged only on the command of God or some legitimate authority (C. 23 q. 2 d. p. c. 2). Following Augustine after his fashion, Gratian enlarges the just war when he invokes God, thus linking just wars with divine authority for church wars. He justifies religious persecution of the church's enemies – infidels, pagans, and heretics – but he only implicitly conflates just wars and religious persecution, and is unclear about whether the church has the right to authorize wars, and how directly it could be involved. He never explicitly discusses the Crusades.

Gratian's account raised more questions than it answered, and so the so-called Decretists "glossed" the *Decretum* to about 1190. They first had to explicate the just war formula. Most terse was the account of Huguccio, for whom the just war was waged by the just edict of a prince (*Summa* to C. 23 q. 2 pr). To prevent vengeance, the Decretists restricted the rights of self-defense by requiring recourse to judicial authority, for, as Huguccio said, no one could act as judge in his own cause.[21] Decretists agreed that the necessity of defense sometimes justified armed violence, but it was Huguccio who narrowed what could count as a just cause for war when he prohibited a purely aggressive war of attack (ibid.). What the Decretists lacked was an effective distinction between war and the exercise of jurisdiction over one's subjects; they were concerned to limit the petty violence of the feudal nobility, but they placed no similar restrictions on the violence of wars between full-fledged authorities.

For Huguccio, wars against heretics were justified by both divine and human law (*Summa* to D. 1. c. 9), but many Decretists were unclear as to whether the just cause in this case was heresy itself, or the heretics' resort to violence. Defense of the church, the Holy Land, and the faith often overrode their cautions, though, and enabled them to envision wars based on the church's authority. Since heretics transgressed divine law and persecuted the church, they were denied the protection of human law and could even have their property confiscated.[22] Popes and prelates could summon princes and urge Christians to attack all those who disturbed the *patria*, meaning here the church.[23]

The Decretists took a major step when they transformed the Crusades from a nebulous holy war into a just war of the church. Overall, they confirmed the principle that any use of violence other than immediate self-defense was the

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[21] *Summa* to D. 46 c. 8; for other texts, see Russell, *Just War*, p. 97 n. 14.
[22] Russell, *Just War*, p. 114 n. 98.   [23] Ibid., p. 116 n. 107.

monopoly of legitimate authority. The just war became the province of princes, popes, and prelates justified by defense of the *patria* and the church. The clearest justification for the Crusade was Muslim occupation of the Holy Land. Lacking in their debates, however, was an awareness of the subtle differences between authorizing, promulgating, declaring, and directing hostile operations from afar.

Around 1190, canon lawyers began glossing papal decretal letters; the disagreements between these canonists, known as Decretalists, provide a richness of debate. Their first task was to refine the formulation of the just war. Five distinct components of a just war – *persona, res, causa, animus*, and *auctoritas* – entered into general use in the *Summa de paenitentia* of Raymond of Pennafort (*ca.* 1221). According to Raymond, all five criteria must be met for a war to be just (2.5.12.17). First, the person waging war must be a layman. Second, the *res*, or object, of the war must be recovery of property or defense of the *patria*. Third, the *causa*, or immediate circumstances necessitating the war, must be that hostilities had already begun. Fourth, the *animus*, or attitudes, included piety, justice, and obedience, and excluded hatred, cruelty, and cupidity. Fifth, the war must be waged on princely authority.

Of course, such broad formulations only opened debate. A key part of this debate concerned how to clarify Augustine's phrase "avenge injuries." By common consensus, "avenge" came to mean the simple repulsion of injuries, in line with Roman law, and "injuries" usually meant violence to be repelled immediately if the defense was moderate. Gradually, however, the concept of avenging disappeared, a shift that enabled the Decretalists to explore the underdeveloped notion of defense. Another question, which particularly vexed the Decretalists, concerned the proper authority for a just war. Some felt that princes in general, and even Italian cities, had the right to declare war. In contrast, Hostiensis claimed that the just war could be waged only on the authority of emperor, pope, or a judge possessing sovereign powers (the *merum imperium*). He condemned all wars between Christians as treason.[24] Around 1250, the most prominent among the Decretalists, Innocent IV (Sinibaldo dei Fieschi), probably the most accomplished lawyer to sit as pope, adopted a middle position. Taking into account contemporary practice, Christian legal norms, and differences in levels of jurisdiction, he distinguished between a just war against external invaders and exercise of internal jurisdiction. These licit military actions of inferior princes were not just wars, he claimed.[25] The legal conditions under which violence

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[24] Copious references ibid., p. 141f.
[25] *Commentaria* to X.2.13.12, par. 7–8 (ed. 1570, ff. 231va–232ra).

was inflicted, rather than the nature of the violence itself, determined its legal status.

Concomitant with the issue of authority was the question of obedience. Common opinion held that a vassal was not bound to aid his overlord when the latter unjustly attacked, or when obedience would lead to sinful activities,[26] but such disobedience in an unjust war clearly opposed feudal custom. Taking this into account, Innocent IV applied Roman private law to the feudal relationship, stating that a vassal could sue his lord for damages incurred in a just war, but not in an unjust war.[27] Lords and vassals thus had to confront both moral and material risks when they engaged in violence.

Rules of conduct, whether customary or canonical, were based more on military expediency and moral justification than on the inherent rights of bystanders. Common opinion applied the Truce of God – a temporary cessation of hostilities based on the liturgical year – only to wars of attack, while a just defensive war could be waged at any time. Especially deadly weapons could be used in a just war even against Christians, but not in unjust wars. According to William of Rennes, just warriors should limit their violence according to current practices, or, as he put it, by the "industry and custom of those fighting with good faith." Restitution for damages in an unjust war was obligatory, but not in a just war unless moderation had not been observed.[28] Innocent IV and Hostiensis – who were in general concerned less with the justice of war and more with its legal consequences – linked property rights to three levels of licit violence. The highest, a just war between independent adversaries, carried the full legal consequences of confiscation of the Roman just war, including capture of enemies and confiscation of their property. The second, waged by a prince with some jurisdiction over his enemy, limited a prince to, in effect, a just battle rather than a just war, in which he could exercise jurisdiction over enemy property but could not confiscate it. The third, most restrictive type was simple defense against invasion, where the only right was simple repulsion, without increased property rights.[29]

Debates about the church's involvement in hostilities focused on ecclesiastical regulation of lay wars and on the authority of the prelates to declare war. Johannes Teutonicus spoke for most when he claimed church competence to

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[26] Johannes Teutonicus, *Glossa ordinaria*, to C. 22 q.5 c. 18 v. *honestum*; to C. 22. q. 5 c. 1 v. *et miles*.

[27] The fuller argumentation is in Russell, *Just War*, pp. 149–55.

[28] See William's *Glossa* on Raymond of Pennafort's *Summa de paenitentia* II.5.12.19, v. *sibi dato* (ed. 1603, p. 188a).

[29] Russell, *Just War*, pp. 175–9; cf. Maurice H. Keen, *The Laws of War in the Late Middle Ages* (London: Routledge, 1965) pp. 67–72.

judge the moral status of a particular war.[30] Innocent IV insisted, however, that Christians could not make war on infidels merely because of their infidelity, but only when infidels attacked Christians.[31] On the other hand, when the Holy Roman Emperor made war on the church, Hostiensis obliged all Catholics including imperial vassals to come to its defense. The *Glossa ordinaria* to the Gregorian decretals of 1234 gave the church alone authority to declare war on enemies of the faith, since it alone could promote such wars by granting indulgences. For Hostiensis, without the papal preaching of the cross, no church war enjoyed the status of a Crusade, and he distinguished between Crusades to the Holy Land and Crusades within Europe, finding these latter more reasonable and just.[32] Now domesticated by papal authority, the Crusade became *the* papal just war. In effect, the Decretalists distinguished three levels of the church's wars against its enemies: it could first invoke the secular arm, then prelates could take the initiative, and finally the pope could preach and direct the Crusade. Theory had finally caught up with practice.

THEOLOGIANS

Since the basic theology text in the schools, the *Sentences* of Peter Lombard (*ca.* 1150), did not explicitly discuss warfare, theologians used Gratian extensively in their discussions. Even so, theology and canon law diverge quite significantly, especially after 1250, when Aristotle joined the Bible and Augustine as a major authority in medieval discussions. In general, theologians placed more emphasis on the moral dimensions of warfare than canonists did, betrayed more suspicion of military service, and also placed greater emphasis on the individual soldier's responsibility. In addition, they continued to emphasize avenging injuries long after the canonists had discarded it. John of La Rochelle, for instance, repeated the canonist Raymond of Pennafort's five criteria mentioned above and added that, if all five criteria were not met, the war was not only unjust but rapacious.[33] Proper authorities included kings and the emperor, and just causes included protection of the *patria*, the faith, and peace. Following Augustine's durable definition but subdividing it differently, the Franciscan Alexander of Hales distinguished six requirements for the just war: authority, attitude, intention, condition, merit, and cause. Authority and attitude concerned the person declaring the war, intention and condition referred to those fighting the

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[30] *Apparatus glossarum in Compilationem quartam* to 2.9.2 (X.2.24.29) v. *iniuste*.
[31] *Commentaria* to X.3.42.4, para. 5 (ed. 1570, f. 456rb). See Muldoon, *Popes, Lawyers and Infidels.*
[32] Russell, *Just War*, pp. 199–205.
[33] *Summa de vitiis*, v. *de his rapiuntur in bello* (ms. Paris, Bibl. Nat. Lat. 16417, f. 151ra).

war, and merit referred to the enemy, which came under Augustine's rubric of avenging injuries. The just cause, Alexander's sixth criterion, became the overriding moral purposes of Augustine's just war: the relief of good people, the coercion of the wicked, and peace for all.[34] By placing this last, Alexander emphasized the teleological view of the just war that Thomas Aquinas would develop more fully.

Opinion was divided over whether knights could serve in an unjust war, or withhold their obedience, but discussion was casuistic and inconclusive. More systematic was Alexander of Hales's later distinction between two elements of his just war formula: a king's war could be unjust but still the knights had the duty to obey him (*Summa theol.* III n. 467 ad 1–2). This returned the requirement to Augustine's position. Theologians privileged defense against attack in their analysis of cause, and since defense cost money, they justified as incentives the payment of salaries to mercenaries and rewards from spoils.[35] Like the lawyers, theologians felt that plunder seized in a just war became one's own, but observed that just title was often difficult to determine. Their advice was to seek the judgment of a church court, and, in the confessional, to render restitution in dubious cases.[36] On Crusades against infidels and heretics, theologians before Aquinas basically reflected received opinion.

With the infusion of Aristotle's thought from around 1250, theology became more speculative and systematic, incorporating Aristotle's naturalness of political authority, the teleology of communal life, and the superiority of the common good into the earlier Augustinian framework; in the process, it both emancipated the theology of war from the canonists and neglected the messy complexities of feudalism. Aquinas's most extensive treatment of war, in his *Summa theologiae*, places warfare within an overall moral scheme of Christian salvation. To the objection that the evangelical precepts made war illicit, Aquinas first cites Augustine's reference to the inward disposition of the heart, and then cites the Aristotelian defense of the common good, which was in effect the divine good.[37] Fighting enemies is both for their own good and for that of others. One can do harm to enemies to avoid greater evils or to support greater goods such as justice (*Sent* III.30.2), but wars waged not for the common good but for greed and vainglory are dangerous to both the soul and the community (*De regimine principum* I.8). Aquinas justifies princely authority to wage war, since princes are instituted by God to further the common good (*Epistola ad ducissam*

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[34] *Summa theologica* III n. 466 resp. and ad 3 (ed. Quaracchi, IV: 684–5). Cf. Russell, *Just War*, pp. 219–20.
[35] Russell, *Just War*, pp. 241–3.   [36] Ibid., pp. 250–1.
[37] *Summa theol.* 2a2ae 40.1 obj. 1, ad 1; *In Ethic.* X.11 (to 1177b).

Brabantiae 6). Dispelling any lingering doubts over whether killing could be justified, he divinizes the teleology of the just war, going far beyond Augustine's more somber estimate of what just warfare could accomplish.

Aquinas proposes three requirements for a just war: authority, just cause, and just intention (*Summa theol.* 2a2ae 40.1c). Meriting first place is the authority of a prince committed to the common good. The second requirement is the guilt of an enemy, rendering him worthy of attack. Third, the warriors themselves must be motivated by righteous intentions to promote good and to avoid evil. Aquinas further requires the fulfillment of all three criteria, such that even if the first two are met, the war can still be rendered illicit by wicked intentions. Aquinas also insists that a war be not only justified but also justly waged. The Thomistic formula for the just war thus recast the simple if problematic Augustinian definition in a new and concise form.

Aquinas at least obliquely raises the issue of non-combatant immunity when he argues that just men should not kill innocent men (ibid., 188.3 ad 1). He feels that someone who kills a just man sins grievously, yet he retreats from this because a just man unjustly killed would be led to glory by God (ibid., 64.6 ad 2). These passages could support non-combatant immunity, but Thomas does not mention warfare in this context, remaining safely within the confines of Augustine's theory of war guilt.[38] Aquinas supports the right of just warriors to retain their plunder, provided their pillaging was motivated by justice rather than cupidity (ibid., 66.8 ad 1, 3).

Aquinas has little new to say about wars of the church. He holds that the crusading (military) orders could justly wage war at the behest of a prince or the church (*Summa theol.* 2a2ae 188.3 ad 4). Like Innocent IV, he makes concessions to existing infidel societies: mere infidelity does not justify warfare against non-Christian lands, but attacks on Christians and their rightful territory do. Following Aristotle, Aquinas is convinced that any human community has a natural right to an independent existence regardless of its religious beliefs. Nevertheless, he denies such toleration to heretics.[39] In general, Aquinas synthesizes the older Augustinian notion of war as punishment with the newer Aristotelian *raison d'état*; his bold application of Aristotle's politics to warfare prevents him from transforming the church's spiritual superiority into the legal supremacy advocated by Hostiensis. In effect, Aquinas proposes two separate but complementary formulas: one is the standard formula of avenging injuries,

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[38] Vincent of Beauvais hinted at non-combatant immunity when he obliged a knight who waged a just war to refrain from punishing the subjects of his enemy who had refused aid and counsel to their ruler (*Speculum doctrinale* 7.28, ed. 1624, p. 576).

[39] *Summa theol.* 2a2ae 11.3c. Also, heretics could be compelled to fulfill their promises by coercion (*Summa theol.* 2a2ae 10.8c, ad 3).

while the other treats the just war as a defense of the community and the common good. This approach points toward the modern distinction between offensive and defensive wars and to the age of the standing army.

CONCLUSIONS

Just war theories were the best compromise between human aggression and Christian pacifism that the church could devise. Even so, the problem defied consistent and sustained philosophical attempts at solution. Part of the difficulty was that medieval thought on war developed largely through commentaries on key texts. If unmentioned in the text, an issue often did not receive attention, while mention in turn often provoked pointless repetition. In addition, debates often applied texts to contemporary feudal and papal realities; when these time-bound realities changed, such debates became less relevant. The response of late medieval legists to these changed conditions was a sort of quotation-mongering deficient in practical viability and new thought. Canonistic treatments became more detailed and specific, while theologians became increasingly abstract. Finally, in the seventeenth century, Hugo Grotius ushered in modern just war theory when he secularized the just war by removing medieval religious considerations from it.[40]

When Innocent IV limited a just war to authorities with no superior, he buttressed the right of secular monarchs and independent city-states to develop their monopoly of legitimate violence (see Chapter 39). As a result, the just war could not only support clerical purposes, but could be turned against them, as it was in the conflicts between kings and popes after 1300. Royal laws punishing disobedience as treason eroded the capacity of vassals to wage private warfare, and increasing use of standing armies weakened the power of vassals to disobey. What had begun with Augustine as an issue of morality and scriptural exegesis ended up as a tool of statecraft, as a *bellum legale*, waged in defense of legality rather than morality, and also made possible ever-larger wars. Similarly, the crusading ideology helped justify later European states in their imperialism outside Europe. The real victors of the medieval concept of the just war were the monarchs of early modern Europe.

The assessment of just war theories of any age is bound to be ambivalent, for they are an unstable compound always in danger of splitting into their

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[40] See Karma Nabulsi, "Conceptions of Justice in War: From Grotius to Modern Times," in Sorabji and Rodin, *The Ethics of War*, 44–60; Richard Tuck, "Grotius' *Of the Law of War and Peace*," in J. H. Burns (ed.) *The Cambridge History of Political Thought, 1450–1700* (Cambridge: Cambridge University Press, 1991) 514–22.

component parts. The greatest weakness of all medieval theories is their dependence on an assessment of prior guilt. Without a competent tribunal to judge the justice of a war, the authority declaring the war is both morally and legally compromised, and both sides can claim justice. The just war is really an ethical and religious doctrine covered with a thick veneer of legality. At the very least, however, the medieval just war placed the burden of proof on just warriors to rationalize the grounds for their actions according to accepted principles.

VIII

METAPHYSICS

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THE SUBJECT OF THE ARISTOTELIAN SCIENCE OF METAPHYSICS

REGA WOOD

Aristotelian science conveys understanding by showing the necessary relationship between immediately evident first principles and conclusions about the natural world. To take a trivial example: induction from repeated experience teaches us that all broad-leaved plants are deciduous. We discover that grapevines have broad leaves. We infer that grapevines are deciduous, and thereby we also learn that they lose their leaves in winter because they are broad-leaved (see Aristotle, *Post. An.* II.16–17).

Aristotelian science explains a subject's possession of an attribute (the *explanandum*) by identifying the possession of that attribute with membership in a species, and then citing as *explanans* the inclusion of that species within a prior genus. In the present example, the property is "losing its leaves in winter," the species is "grapevines," and the genus is "broad-leaved plants." The explanation is then presented in the form of a syllogism. In the first premise an attribute (being deciduous) is predicated of a subject (broad-leaved plant). The second premise introduces a new subject that belongs to the class described by the subject of the first premise, allowing us to conclude that the second subject shares an attribute of the first.

Aristotle describes this demonstration as *propter quid* science because it explains why grape leaves fall. If the deduction were valid, but its premises were not explanatory, it would count as *quia* science: knowing a fact without understanding why it obtains (ibid., I.13, 78a22–b3) (see also Chapter 26).

A great strength of Aristotelian science is its claim systematically to explain the world as a whole. It explains not only the movement of celestial bodies and the tendency of heavy bodies to fall but also the generation and growth of plants and animals, their absorption of nutrients, and their eventual decay. Another strength of the approach is that it offers reliable knowledge of a changing world using a method that takes advantage of the strengths of induction, observation, and deduction.

A SCIENCE OF METAPHYSICS?

A weakness of Aristotelian science is that the method threatens to collapse precisely at the point where it should be strongest – namely, when it deals with the most general science, metaphysics. Metaphysics is central to the structure of Aristotelian science because it validates the principles and concepts assumed in the particular sciences.[1] One sign of the problem is an inconsistency between the work that explains scientific method and the work that describes the most general science: the *Posterior Analytics* and the *Metaphysics*, respectively.

In his *Posterior Analytics*, Aristotle establishes that a science proceeds from indemonstrable first principles to demonstrate and thereby explain the attributes of a unified subject (I.2, 71b9–19; I.10, 76b11–22). He holds that a science is unified if its indemonstrables, its subject, and its attributes belong to one single genus (I.28).

In his *Metaphysics*, however, Aristotle says that the subject of metaphysics is *ens qua ens* (*to on hē on*).[2] Usually this phrase is translated as "being *qua* being," but though 'entity' (*ens*) signifies a subject, 'being' signifies an attribute rather than a subject of which attributes are predicated. Attributes as such, however, cannot be the subject of an Aristotelian science. So here we will refer to "entity *qua* entity."[3] But the basic problem is not with how to translate the word *ens*; it is with its ontological status. For since *ens* is not a genus,[4] it seems it could not be the subject of an Aristotelian science. There cannot be a science of entity, as science is defined in the *Posterior Analytics*, since there is no common nature or most general genus that includes both substance and accidents.

Moreover, were we to overlook that obstacle and suppose that entity is a genus, we would find then ourselves predicating a genus (entity) of species and *differentia*, which is improper.[5] Thus while it is proper to say 'an animal is a substance,' we cannot say that 'substance is animal,' since it is wrong to predicate the less general of the more general category. But while we cannot say 'substance is animal' or 'animal is man,' we do rightly say 'substance is an entity' and 'substance is unified,' and that would not be possible if entity were a genus. Therefore, entity cannot be a most general category or genus (see *Metaphys.* II.3, 998b14–28).

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[1] See Aristotle, *Metaphys.* IV.3, 1005a19–b34; VI.1, 1025b4–18. For a challenge to this view see Alfonso Gómez-Lobo, "Arisotle's First Philosophy and the Principles of Particular Disciplines," *Zeitschrift für philosophische Forschung* 32 (1978) 183–94.

[2] *Metaphys.* IV.1, 1003a21–22, but see I.2, 982b7–10; VI.1, 1025b3–4; 1026a16–18.

[3] Another problem with the usual English 'being as being' is that that phrase would normally translate the Latin '*esse qua esse*,' not '*ens qua ens*.' Still, '*ens*' is a participle and 'entity' is an abstract noun, so no solution is really satisfactory.

[4] *Post. An.* II.7, 92b14; *Metaphys.* III.3, 998b22.   [5] See Aristotle, *Topics* VI.6, 144a31–b3.

AVICENNA AND AVERROES

As these last puzzles show, the problem is not just that Aristotle is not entirely consistent, but that the puzzles he himself states early in the *Metaphysics* seem to show that there could not be a most general science. Faced with this problem, medievals turned to Avicenna and Averroes. Avicenna agrees with Aristotle that the subject of metaphysics is entity as entity and its causes. In its search for understanding of entity as entity – that is, entity insofar as it is entity – metaphysics demonstrates the existence of God. It has four parts: (1) It investigates divine being, entirely removed from matter, as it seeks to discover the final causes of caused beings as beings. (2) It seeks to understand caused beings connected with but not constituted by matter, by considering them insofar as they are caused by the first cause. Also, (3) it enquires about the attributes and dispositions that characterize indifferently both being that is connected with and being that is unconnected with matter – specifically mentioned are the attributes of unity and causality. Finally, (4) metaphysics establishes the first principles of the particular sciences that deal with beings connected with matter.[6]

Averroes agrees with Avicenna that metaphysics establishes the principles of the particular sciences, and like Avicenna he lists this as the last part of the study of metaphysics.[7] But it is the last of three, not four parts, since Averroes eliminates the distinction between the second and third parts of metaphysics Avicenna described. Accidents need not be studied separately, since the nine accidental categories are all attributes of the first category of substance (*In Metaphys.* IV.2–3). Obeying the logic of the *Posterior Analytics*, Averroes holds that metaphysics considers only a single genus, substance.[8] Entity as such cannot be the subject of a science, since it does not constitute a genus. Moreover, the principal subject of metaphysics, according to Averroes, is unqualified entity, by which he means substantial forms removed from matter. Such forms removed from matter are those of the most noble causes, and hence God and separated substances are the subject of metaphysics, but proving their existence is not the task of metaphysics. The existence of separated substances is established in the science of physics (*In Phys.* I.83; *In Metaphys.* IV.1).

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[6] Avicenna, *Liber de philosophia prima* I.1–2 (ed. Van Riet, I: 8–17). For the suggestion that metaphysics has only three parts, since the first two parts of this science should not be distinguished see Gerard Verbeke, ibid., pp. 21*–23*. By contrast, Olivier Boulnois refers to four parts in "Le besoin de métaphysique. Théologie et structure des métaphysiques médiévales," in J.-L. Solère and Z. Kaluza (eds.) *La servante et la consolatrice* (Paris: Vrin, 2002) pp. 70–2.

[7] Averroes, *Epitome in librum Metaphysicae Aristotelis*, tr. 1 (ed. 1562, VIII: 357r).

[8] Cf. Aristotle *Metaphys.* IX.1, 1045b28–33.

SCHOLASTIC APPROACHES

Albert Zimmermann distinguishes three principal scholastic approaches to the problem. The first does not aim for a unified subject, but makes God one of many subjects of metaphysics. The second includes God, but as the cause of metaphysics' subject rather than as its subject. The third includes God as a part of a unified subject of metaphysics. The three most famous medieval philosophers, Thomas Aquinas, John Duns Scotus, and William of Ockham each espouse one of these three approaches: Aquinas, the second; Scotus, the third; and Ockham, the first.[9] To this list a fourth approach should be added, according to which substance is the subject of metaphysics. Though the fourth approach was rarely advocated by scholastics, related views are widely held today.[10] So we will consider advocates of all four approaches in chronological order, beginning with an advocate of the fourth view.

Richard Rufus of Cornwall

Denying Averroes's claim that God and separated substances are the subject of metaphysics and accepting his claim that entity cannot strictly speaking be its subject, Richard Rufus proposes that the subject of metaphysics is substance. Rufus does not see himself as thereby rejecting Aristotle's claim that entity as entity is the subject of metaphysics. Rather, following Averroes (*In Metaphys.* IV.2), Rufus holds that substance is the primary meaning of 'entity,' which is an analogous term referring *per posterius* to entities other than substance – that is, to quality and quantity and the other accidental categories.[11] Modern proponents of this approach refer not to analogy but to *pros hen* equivocation or to focal meaning.[12] They basically agree with Rufus and Averroes, however, that 'entity' primarily signifies substance. Thus proponents of the fourth approach hold that when Aristotle speaks of the science that studies entity as entity, he is referring to the science of substance, which is a science that also considers substance's

[9] See Albert Zimmermann, *Ontologie oder Metaphysik* (Leuven: Peeters, 1998) pp. 200–22, 294–329, 389–98.

[10] See Alan Code, "Aristotle's Metaphysics as a Science of Principles," *Revue internationale de philosophie* 51 (1997) 357–78; Kyle A. Fraser, "Demonstrative Science and the Science of Being *qua* Being," *Oxford Studies in Ancient Philosophy* 22 (2002) 43–82.

[11] *Dissertatio in Metaphys.* 4.1.E2 (Salamanca, Bibl. Gen. Hist. cod. 2322, f. 75rb). See also Albert Zimmermann, "Some Aspects of the Reception of Aristotle's Physics and Metaphysics in the Thirteenth Century," in M. Jordan and K. Emery (eds.) *Ad litteram: Authoritative Texts and their Medieval Readers* (Notre Dame, IN: University of Notre Dame Press, 1992) pp. 220–2.

[12] Modern discussion of focal meaning was pioneered by G. E. L. Owen, "Logic and Metaphysics in Some Early Works of Aristotle," in G. Owen and D. Ingemar (eds.) *Aristotle and Plato in the Mid-Fourth Century: Papers of the Symposium Aristotelicum* (Gothenburg: Elanders, 1960) 163–90.

attributes and its principles, and thus by extension all entities. The accidents of substance are also considered by other sciences – number, for example, by a mathematician. But it pertains to the metaphysician alone to consider them unqualifiedly as entities.

Unlike modern advocates of this approach, Rufus does not include the first cause in the science of metaphysics, but limits the subject of metaphysics to caused entities. Here Rufus's belief that the subject of metaphysics includes only caused substances and its passions may reflect the influence of Avicenna. Though Rufus rejects Avicenna's claim that the subject of metaphysics includes the divine final cause of being as being, Rufus seems to agree with Avicenna that metaphysics deals with the causes of caused entities insofar as they are caused.[13]

Since substance is a genus, and its attributes can be understood as a consequence of its first principles, it meets the requirements stated in the *Posterior Analytics*. But Rufus adds that the subject of a science must have not only generic unity but also share a single nature that can be measured by a common minimum in much the same way that all numbers are measured by a single unit. Partly for this reason, God cannot be the subject of the science of metaphysics, or a part of its subject. God enters into the science of metaphysics only as a cause, and not as an intrinsic but as an extrinsic cause.[14] Hence, the subject of metaphysics is limited to created substance, and its utility is to supply such knowledge of created entities as is possible in this life. Despite having denied that God is the subject of metaphysics, Rufus holds that the final end of metaphysics is to speak of God as the final cause, which is a thought that would resonate with his successors.[15]

In some respects Rufus's is an incomplete and unsatisfactory account of the subject of metaphysics. It is sketchy, and he does not tackle the problem of the relationship of metaphysics and theology. Perhaps for this reason, he does not appear to qualify the requirements for an Aristotelian science in defining the subject of metaphysics, except perhaps by unduly restricting the subject. By contrast, most scholastics compromise the requirements stated in the *Posterior Analytics* for a unified science and come closer to the views stated by Avicenna. Moreover, they also seek to preserve some aspect of Averroes's claim that God is its primary subject.

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[13] Avicenna, *Liber de philosophia prima* I.2, ed. Van Riet, I: 14–15. Averroes by contrast speaks not of caused things but of transmutable or sensible things. See Averroes, *In Metaphys.*, IV.1; *Epitome in Metaphys.*, tr. 1 (ed. 1562, VIII: 357r).

[14] Rufus, *Dissertatio in Metaphys.* prol. (ed. in Zimmermann, *Ontologie oder Metaphysik*, pp. 113–15).

[15] Rufus, *Dissertatio in Metaphys.* prol. (UB Erfurt, Dep. Erf. CA Quarto 290, f. 2va). Cf. Thomas Aquinas, *Summa contra gentiles* III.25.

Thomas Aquinas

Aquinas's solution to the problem is closer to Avicenna's than to Averroes's.[16] For though, like Averroes, Aquinas holds that metaphysics is principally about substance,[17] Aquinas agrees with Avicenna that the subject of metaphysics is entity *qua* entity and not God and separated substances. Most of the elements of Aquinas's solution are drawn from either Aristotle or Avicenna, and yet he goes beyond these authors, often in a manner dictated by Christian doctrine.[18] Specifically, Aquinas carefully distinguishes a divine science based on revelation from the divine science of metaphysics, and he provides an alternative account of the unity of metaphysics, a negative unity that we will discuss below.

According to Aquinas, God is related to metaphysics as the cause of its subject. From this it would seem to follow that metaphysics investigates God, since every science has to consider its principles.[19] So in making the case for theology as a separate science, Aquinas explains why we need to postulate a science other than metaphysics that considers God. The positive case is based on the claim that God and separated substances are special kinds of causes; the negative case is based on our limited epistemological capacity.

Theology can be a separate science because, though every science investigates the principles of its subject,[20] it is not always the sole science that does so, according to Aquinas. What determines whether causes are treated in more than one science is whether they exist independently. Non-self-subsisting principles are studied only by the science whose subjects they cause. However, complete, self-subsistent causes must also be studied in a separate science without reference to the things they cause. Just as the elements of fire, air, water, and earth are studied apart from the compounds based on them, so God and separated substances are studied in theology.

The negative case is based on the claim that God is a non-natural cause and presupposes the psychological definition of an Aristotelian science. An Aristotelian science is an intellectual habit or disposition concerning a demonstrated truth about a unified subject matter.[21] The science of metaphysics, like other natural sciences, is a habit of the possible intellect, a faculty whose objects are sensed before they are abstracted, and hence a faculty whose sole access to knowledge of God is *a posteriori*, since natural reason can know only God's effects in the world. Though God is maximally intelligible, our intellects are

[16] See John F. Wippel, *The Metaphysical Thought of Thomas Aquinas* (Washington, DC: Catholic University of America Press, 2000) p. 18.

[17] Aquinas, *In Metaphys.* V.7 (ed. Cathala and Spiazzi, n. 842); VIII.1 n. 1682; XI.1 n. 2155.

[18] See Zimmermann, *Ontologie oder Metaphysik*, p. 214.   [19] See Aristotle, *Phys.* I.1, 184a12–14.

[20] See Aquinas, *In Metaphys.* VI.1 n. 1145 (re. 1025b5–7).

[21] See Aristotle, *Nic. Ethics* VI.3, 1139b26–35; *Post. An.* I.28, 87a38–87b4.

blind to him; he cannot be a direct object of natural understanding.[22] Since the relation of a science to its subject is the same as the relation of an intellectual habit to its object (*Summa theol.* 1a 1.7), theological understanding – which has a different subject, namely, God as described by Scripture – must be a scientific habit different from metaphysics (*In De Trinitate* 5.4).

So far Aquinas has shown only that God cannot be the subject of a natural science of metaphysics, but must instead be the subject of a distinct science, not naturally acquired. The more daunting task, however, is to show the unity of the subject. Since the unity of a science requires the unity of its principles as well as the unity of its subject, Thomas discharges this obligation in part by his account of God as a principle of entity.[23] Here Aquinas is drawing on a distinction stated by Avicenna between two ways in which a principle can be common: a principle can be common as a universal is common, and in that case it can be predicated of all particular things that share it. By contrast, an efficient cause can be common as the shared primary origin of things.[24] Aquinas revises this distinction, contrasting common predicables with principles having general causal power. For both Avicenna and Aquinas the common causes of entity as such are beyond the natural realm – non-natural for Avicenna, and maximally actual, complete, incorruptible, and immaterial for Aquinas (*In De Trinitate* 5.4). Thus the subject of metaphysics is united in part because all being or entity shares a common cause.

The more obvious problem is the unity of entity itself as a subject of inquiry. Sometimes in this context Thomas describes entity as a genus, though, of course, strictly speaking it is not (*In Metaphys.* proem.).[25] Moreover, Thomas faces another problem since he has denied that God is the subject of metaphysics: for if entity as such is the subject of metaphysics, then God cannot be an entity. At some points, Thomas seems to accept this consequence. He excludes God from the subject of metaphysics by defining entity as what finitely participates in being or what God causes (*In De causis* 6).[26] But at other points Aquinas includes God as an entity.[27]

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[22] Aquinas, *In De Trinitate* 5.4 (re. Aristotle, *Metaphys.* II.1, 993b10, and Romans 1.20). Cf. *Summa theol.* 1a 84.7 ad 3.

[23] *In Post. an.* I.41, lines 242–300 (re. Averroes, *In Post. an.* I.179; Aristotle, *Post. an.* I.27, 87a38–b4).

[24] Also common is the shared primary end for which natural things were intended (Avicenna, *Liber primus naturalium* 1.2, ed Van Riet, pp. 22–3). Cf. Wippel, *Metaphysical Thought*, pp. 15–16.

[25] See Wippel, *Metaphysical Thought*, p. 20.

[26] Less radically, elsewhere Thomas denies only that God is included with everything that is a *common* entity. See *In De divinis nominibus* 5.2.660, and *Summa theol.* 1a2ae 66.5 ad 4.

[27] Zimmermann, *Ontologie oder Metaphysik*, pp. 219–21, lists the passages and suggests that Aquinas may simply be inconsistent on this point.

Restricting the significance of 'entity' bears some resemblance to Rufus's claim that metaphysics concerns only caused being. This is an approach that Thomists consider uncongenial to Aquinas,[28] so fortunately there is another, more consistent strategy, which rests on a variation of Aristotle's distinction between physical, mathematical, and metaphysical abstraction. As traditionally interpreted by Averroes, physics abstracts only the general from the particular and deals with objects abstract from matter neither in being nor in definition, whereas mathematics deals with objects abstract in definition but not in being, and metaphysics deals with abstract objects, independent of matter in their being (*In Metaphys.* VI.2 [re. 1026a19]).

For Thomas, the metaphysician separates rather than abstracts (*In De Trinitate* 5.3) – that is, the metaphysician judges not just that being can be considered separately from matter, but that its nature is unconnected with matter.[29] Things are separated from matter in two ways according to Thomas: on the one hand, there are things that cannot be combined with matter, such as God and angels; on the other hand, there are things that can exist with or without matter and do not depend on it, such as entity and substance, act and potency (ibid., 5.4; *In Metaphys.* proem.). The human science of metaphysics, which Thomas describes as philosophical theology, deals with the former as the cause of its subject. Its proper subject, however, is entity judged to be independent of matter in the latter sense (*In De Trinitate* 5.4). That subject is unified negatively, not by being positively distinct from matter, but by being as capable of existing apart from matter as conjoined with it.[30]

Sharing with Avicenna the view that the subject of metaphysics is entity as entity, Thomas goes beyond Avicenna in justifying the unity of metaphysics by reference to the requirements stated for an Aristotelian science in the *Posterior Analytics*. Aquinas also has provided a carefully reasoned response to Averroes's claim that God and separated substances are the subject of metaphysics. Thomas makes them instead the causes of its proper subject and the subject of a different science.[31] But though God is not the subject of metaphysics, it aims at knowledge of God as its final end, for Aquinas (*Summa contra gentiles* III.25) as for Rufus.

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[28] Ibid., p. 222.

[29] See John F. Wippel, "Metaphysics and *Separatio* According to Thomas Aquinas," *Review of Metaphysics* 31 (1978) 431–70.

[30] See Wippel, *Metaphysical Thought*, p. 17; Zimmermann, *Ontologie oder Metaphysik*, p. 211.

[31] As Zimmermann points out, God and separated substances are not the subject of science in anything like the same sense for Thomas (*Ontologie oder Metaphysik*, pp. 217–18).

John Duns Scotus

Like Aquinas, John Duns Scotus carefully distinguishes theology from metaphysics, a discussion we cannot consider here. And, like Aquinas, Scotus emphasizes that knowledge of God in metaphysics must be *a posteriori* (*Quaest. in Metaphys.* I.1 nn. 30, 136) and seeks a compromise that can acceptably include the study of God in metaphysics. Unfortunately, his most influential discussion of the subject of metaphysics, the first of his *Questions on the Metaphysics*,[32] is also terribly difficult. Not only is it apparently incompatible with his other discussions of the topic, but even great Scotists find it aporetic and so deeply perplexing as to be beyond human capacity.[33] We consider it here because it strongly influenced Ockham and later authors and also usefully situates Scotus's position relative to Islamic approaches.

In *Metaphysics* I.1 Scotus sets out to show that neither Avicenna nor Averroes satisfactorily solved the problem. In so doing, he undermines his own commitment elsewhere to the claim that entity is the subject of metaphysics.[34] He even states non-committally his famous claim that there is a common concept of entity, univocally predicated of God and creatures.[35] More straightforwardly, Scotus shows that nothing can be predicated of entity in all its generality, since attributes predicated of a subject in scientific propositions must be distinct from their subject.[36] And because not even unity and actuality can be predicated of entity in all its generality, no science can consist of propositions about entity (*Quaest. in Metaphys.* I.1 nn. 86–91).

Avicenna cannot be right about the subject of science, since he agrees that the aim of metaphysics is to learn about God. However, if we could learn about God by studying entity, then information about God would have to be virtually contained in the concept of entity, which is impossible since cognition of the more perfect cannot be contained in cognition of the less perfect. Also, our highest happiness would have to consist in knowing entity as entity, which is false, since it is the most imperfect being (ibid., n. 123).

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[32] Ibid., p. 295.

[33] See Hugo Cavellus, scholium 9 to *Quaest. Metaphys.* I.1 (ed. Wadding IV: 521). See also Ludger Honnefelder, *Ens inquantum ens: der Begriff des Seienden als solchen als Gegenstand der Metaphysik nach der Lehre des Johannes Duns Scotus* (Münster: Aschendorff, 1979) p. 10.

[34] Cf. Peter King, "Scotus on Metaphysics," in T. Williams (ed.) *The Cambridge Companion to Duns Scotus* (Cambridge: Cambridge University Press, 2003) pp. 17–18. Compare Scotus, *Quaest. in Metaph.* 1.91 (*Opera philosophica* III: 46).

[35] Scotus, *Quaest. in Metaphys.* I.1 nn. 85, 153.

[36] See Aristotle, *Metaphys.* VII.6, 1031b21–7. Or, as Scotus would put it, they must not be contained in the subject's essence.

Scotus's initial positive account is a defense of the claim that substance is the subject of metaphysics. Scotus argues against entity as its subject,[37] since there is no unity more general than the ten categories, no concept common to the categories, and no property common to them. Thus the only subject that meets the conditions for a science – namely, to have proper passions demonstrable of it *a priori* – is substance. And although substance is its principal subject, metaphysics also considers everything else in so far as such things are attributes of substance. Like Rufus,[38] Scotus here holds that substance is the primary subject of a *propter quid* science and glosses the claim that *ens qua ens* is the subject by holding that the other categories are included as attributes of substance (ibid., nn. 91–6).

After reaching this conclusion, however, in a subsequent addition that may have been written many years later,[39] Scotus states yet another position. Objecting to the claim that substance is the subject of metaphysics, Scotus asks what metaphysical attribute is predicated of substance, and he considers only one option: prime entity. After suggesting that this attribute cannot be accounted for either as a quantity or a relation predicated of substance, Scotus offers another alternative. That alternative gives up the search for a unified science of metaphysics. Perhaps the science of metaphysics is simply an aggregate of propositions, premises, and conclusions all related to a single primary subject. Given this weaker requirement for unity, God can be the subject of the science of metaphysics.

According to this later addition – which may be Scotus's last statement on the topic – the metaphysician considers all entities insofar as they are attributed not to substance but to the first entity, namely God (ibid., n. 134). Prime entity is the first, but not the only subject of metaphysics. The subjects of metaphysics include first entity and other entities as such and insofar as they are attributed to first entity in our search for knowledge of God (ibid., nn. 136–7).

Scotus also radically separates himself from earlier members of the tradition in other respects. He gives up the claim that metaphysics is an explanatory *propter quid* science, calling it instead a *quia* science. Finally, Scotus allows that a science can demonstrate its subject,[40] since it need presuppose only the concept of its

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[37] Cf. *Ordinatio* I.3.1.3 n. 128 and King, "Scotus on Metaphysics," p. 17. See also Scotus, *Quodlibet* III.1 (ed. Alluntis n. 9), where Scotus describes *ens* in its most general sense, as whatever does not involve contradiction, as the first object of the intellect.

[38] Not only does Scotus agree with Rufus about the subject of metaphysics, but he seems sympathetic to the claim that perhaps only created entity is meant by the famous phrase '*ens qua ens*'; see *Quaest. in Metaphys.* I.1, nn. 84, 134.

[39] For a discussion of the different dating of parts of the same question in this work, see Giorgio Pini, "Univocity in Scotus' *Quaestiones super Metaphysicam*: The Solution to a Riddle," *Medioevo* 30 (2005) 69–110.

[40] Cf. Aristotle, *Post. An.* I.10, 76a31–36.

subject, and it can demonstrate its subject's existence from its effects. Indeed, more than one science can demonstrate *a posteriori* the existence of the same thing, albeit from different effects. Specifically, both physics and metaphysics show the existence of God from his effects in the world, but they only accidentally consider the same object since their proofs rest on different descriptions of God. Physics considers God as a mover, whereas metaphysics considers God as entity, a description that more immediately pertains to his quiddity (ibid., nn. 111–14, 135, 163).

Scotus does not fully commit himself either to substance or to God as the subject of metaphysics (ibid., n. 104). Of Scotus's two answers to the questions of what the subject of metaphysics is and how it is unified, the first denies that there is a unified *propter quid* science of entity as such. By contrast, the second posits such a science as a part of a larger *quia* science of metaphysics, whose subject is first entity (ibid., nn. 140, 150). So the question arises: why not consider the study of first entity as a part of the more general science of entity as such (ibid., n. 137)? Also, if we admit that the metaphysician is chiefly concerned with the first entity, why not consider this the end but not the subject matter of metaphysics, as Thomas had done (ibid., n. 147)? Finally, if entity can be posited univocally of God and other entities, why not make entity the subject, since it includes God as well as other entities (ibid., n. 152)?

Scotus's replies to these questions revolve around an idea that played a minor role in the thought of Rufus and Aquinas: God as the purpose of metaphysics.[41] This thought prompts Scotus not only to claim that God is the subject of metaphysics, but also to use the phrase "subject of a science" in a very different sense than Scotus himself and other authors commonly use. According to Scotus in his other works, the subject of a science virtually contains the truths it demonstrates and serves as a starting point. By contrast, in the *Metaphysics*, Scotus says that God as subject serves not as the starting point but as the end pursued by metaphysics.[42] Knowledge of God is what metaphysicians principally intend to acquire; it is prior in our intention, not as a source of knowledge (ibid., n. 140). We study metaphysics for the sake of knowledge of God, not knowledge of entity (ibid., nn. 148, 153). Metaphysics aims at perfect knowledge of entity, which is knowledge of the first entity (ibid., nn. 117, 161).

Scotus's *Metaphysics* offers a choice between a strongly unified science of substance and a weakly unified science of God. The weakly unified aggregate

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[41] Albert Zimmermann has called attention to most of the relevant texts in which Scotus argues that God is the subject of metaphysics, and at the same time Zimmermann reminds us that God is the subject in a very different sense than Scotus himself and other authors commonly use (*Ontologie oder Metaphysik*, pp. 310–11). See also Avicenna, *Liber de philosophia prima* I.3, ed. Van Riet, I: 26.

[42] Zimmermann, *Ontologie oder Metaphysik*, pp. 310–11.

science of metaphysics, however, includes a *propter quid* science of entity that is quite close to Scotus's better-known description of metaphysics as a science of entity *qua* entity. Hence we might expect later authors to prefer the latter.

William of Ockham

Far from seeking to preserve a science of entity as such, however, Ockham chooses to give up the notion of a unified Aristotelian science altogether. Not just the problematic general science of metaphysics, but even the special sciences, such as mathematics and physics, have only collective, aggregate unity. Moreover, Ockham denies that the subject of a science implicitly contains the truths demonstrated in that science.[43]

Ockham, like Aquinas, starts from the psychological definition of science as an intellectual disposition concerning a demonstrated truth. But for Ockham these are truths stated in individual propositions, a different science for the subject of every demonstrated conclusion. Restricting science strictly speaking to such habits, Ockham does not allow that there can be a habit that pertains to a variety of related conclusions. There can, however, be an ordered collection of habits, and it is in that sense that metaphysics is a unified science.[44] Unlike Scotus,[45] however, Ockham does not allow that particular habits can virtually incline us to a more general science. Sciences are not unified in the strong sense and, contrary to Aristotle (*Post. An.* I.7), it is not important to maintain a generic distinction between sciences. Indeed, the same proofs can equally well pertain to different sciences.[46]

It does not make sense to seek a single unified subject for a science, just as it does not make sense to try to find out who is the single world sovereign, since there is none. Sciences are no more unified in their subject than cities or armies.[47] Thus, for Ockham, the traditional Aristotelian sciences have many distinct parts, each of which has a different subject. However, he allows that these subjects constitute an ordered group, and he makes some of the traditional claims. In a manner reminiscent of Scotus, Ockham holds that God is the primary subject of metaphysics, if we are inquiring about the primacy of perfection, while in the order of predication and attribution, entity is the primary

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[43] *In Phys.* prologue (*Opera phil.* IV: 9); *Sent.* prol. q. 9 (*Opera theol.* I: 262–3).

[44] *In Phys.* prologue (*Opera phil.* IV: 6–7); *Sent.* prol. q. 1 (*Opera theol.* I: 8–9), q. 9 (I: 255–7).

[45] Scotus, *Quaest. in Metaphys.* VI.1 nn. 39–40. See also Aquinas, *Summa theol.* 1a2ae 54.2 ad 2, 54.4 ad 3.

[46] Ockham, *In Phys.* prologue (*Opera phil.* IV: 9–10); *Sent.* prol. q. 1 (*Opera theol.* I: 13–15). Indeed, theology can be subalternated to metaphysics, just as metaphysics can be subalternated to theology.

[47] Ockham, *In Phys.* prologue (*Opera phil.* IV: 7, 10); *Sent.* prol. q. 1 (*Opera theol.* I: 13), q. 9 (I: 259).

subject of metaphysics. Thus Avicenna and Averroes may have disagreed about the subject of metaphysics, but they need not have done, since there is no single subject of the science as a whole; instead there are many subjects: one of which is God; another, entity.[48]

The medieval debate over the subject of metaphysics illustrates the pervasive influence of Arabic thought on the Latin West, and at the same time the innovativeness that Latin authors brought to these discussions. Even Ockham's approach to the unity of a science addresses the concerns of Avicenna and Averroes, though for him the problems posed by their disagreement were hardly pressing.

Ockham's approach may seem refreshingly modern, but his lack of concern for the generic unity of sciences seems unjustified. For he continues to operate with the paradigm of Aristotelian science, and this derives explanations for why things are as they are (and could not be otherwise) from truths about generic natures as determined by specific *differentiae*.

In this respect even the high prices Ockham's predecessors paid as they wrestled with the problem seem preferable. For Rufus the price for a unified science of metaphysics was to exclude the first cause from its subject matter, an approach Aristotle would surely not endorse. Aquinas's theory provides a neat solution to the problem of how to incorporate consideration of God into metaphysics. But if Rufus were to object that God is only an external cause of the substances metaphysics studies and hence not an intrinsic part of metaphysics, it is not clear how Thomas would reply, and neither is it clear how Thomas's description of metaphysical abstraction addresses the question whether entity can be considered a genus. Scotus's description of entity as a thing whose being does not include contradiction is an elegant solution to that problem. It comes at the cost, however, of providing a negative description of entity, lacking any nature. Equally elegant is Scotus's solution to the problem of integrating God into the science of metaphysics – namely, to admit that metaphysics as a whole is not science in the strict sense required for explanatory, *propter quid* science. But though all would agree that *a propter quid* science of a freely acting God is impossible, that is a heavy cost, a measure perhaps of the toughness of the problem Avicenna and Averroes set for their Western successors.[49]

[48] Ockham, *Sent*. prol. q. 9 (*Opera theol*. I: 256–8); *In Phys*. prologue (*Opera phil*. IV: 10).
[49] See Gerhard Endress, *Der arabische Aristoteles und sein Leser* (Münster: Aschendorff, 2004) pp. 13–14, 20–1.

45

ESSENCE AND EXISTENCE

JOHN F. WIPPEL

SOURCES FOR THE SCHOLASTIC DEBATE

At least two issues contributed to the extensive discussion of essence and exis-
tence by Latin thinkers in the thirteenth and early fourteenth centuries. First,
there was a need to explain the metaphysical structure of immaterial entities
other than God (angels, within the Christian tradition) in a way that would
distinguish them from the absolute simplicity of God, especially for those who
rejected the possibility of matter–form composition both for such entities and
for human souls (see Chapters 21 and 46). Second, there was a need to account
metaphysically for the distinction between God, the uncaused cause who nec-
essarily exists, and all other beings, which depend on something else for their
existence.

This famous scholastic dispute over the relationship between essence and
existence has its roots in earlier Latin and Arabic discussions. Among Latin
sources, Boethius was especially influential. He begins his *De hebdomadibus* by
listing a series of axioms, some of which compare and contrast that-which-is
(*id quod est*) and being (*esse*). Consider, for instance, Axiom II: "Being and
that-which-is are diverse"; Axiom VII: "Every simple entity has its being and
that-which-is as one"; and Axiom VIII: "In every composite entity its being
and that-which-is are diverse." With some exceptions, modern interpreters of
Boethius do not see in this contrast a real distinction between essence and
existence (*esse*) as two distinct intrinsic principles of being. Rather, according
to many of these interpreters, Boethius compares and distinguishes between a
concrete entity (that-which-is) and a form in which it shares (*esse*). In simple
beings they are identical, whereas in composite beings they are diverse.[1]

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[1] For a variety of interpretations of Boethius's understanding of these axioms and of *esse* see Hermann
Brosch, *Der Seinsbegriff bei Boethius mit besonderer Berücksichtigung der Beziehung von Sosein und Dasein*
(Innsbruck: Felizian Rauch, 1931); M.-D. Roland-Gosselin, *Le "De ente et essentia" de s. Thomas
d'Aquin* (Paris: Vrin, 1926) pp. 142–5; Cornelio Fabro, *La nozione metafisica di partecipazione secondo*

Equally influential on medieval discussions of this issue was Avicenna's *First Philosophy* or *Metaphysics.* He begins Book I, chapter 5 by observing: "We will say therefore that *thing* (*res*) and *being* (*ens*) and *the necessary* (*necesse*) are such that they are immediately impressed on the soul by a first impression, which is not derived from other things better known than themselves."[2] He notes the similarity between such primary notions at the level of concepts and first principles at the level of judgment. If every concept were to require another and prior concept, this would lead either to an infinite regress or to circularity.[3] Best suited to be conceived in themselves are those concepts that are common to all things, and he again mentions *thing* (*res*) and *being* (*ens)*, but adds *one* (*unum*). He also writes: "I say therefore that the meaning of 'being' (*ens*) and the meaning of 'thing' (*res*) are conceived in the soul as two meanings (*intentiones*). 'Being,' however, and 'something' are different words with the same meaning."[4] Avicenna also notes that each thing has a nature (*certitudo*) by which it is what it is. He comments that we might, perhaps, refer to this as its "proper being" (*esse proprium*), but explains that this is different from the meaning that 'existence' (*esse*) has insofar as it is asserted of something or, according to the Latin translation, insofar as that term is synonymous with the term 'something' (*aliquid*).[5]

From these texts, it is clear that Avicenna defends a distinction between quiddity or essence, on the one hand, and existence taken as that which is

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S. Tommaso d'Aquino, 3rd edn (Turin: Società Editrice Internazionale, 1963) pp. 102–3, 33–7; Pierre Hadot, "La distinction de l'être et de l'étant dans le 'De Hebdomadibus' de Boèce," in *Die Metaphysik im Mittelalter* (Berlin: De Gruyter, 1963) pp. 147–53; "Forma essendi: interprétation philologique et interprétation philosophique d'une formule de Boèce," *Les Études Classiques* 38 (1970) 143–56; Ralph McInerny, *Boethius and Aquinas* (Washington, DC: Catholic University of America Press, 1990) pp. 161–98 (survey of other opinions); John Marenbon, *Boethius* (Oxford: Oxford University Press, 2003) pp. 88–90; Alain Galonnier's commentary in *Boèce. Opuscula Sacra* (Louvain: Peeters, 2007) I: 336–45. McInerny, *Boethius and Aquinas*, maintains that Aquinas's understanding of *esse* and its distinction from "that which is" is present in Boethius, whereas Schulz and Synan's introduction to Aquinas's *On the Hebdomads* has recently argued in support of the majority view that it is not (pp. xxxvii–liv). For Aquinas see *De ente et essentia* 4 (ed. Leonine, XLIII: 377 [lines 165–6]); *In De hebdomadibus* 2 (ed. Leonine, L: 272–3 [lines 201–49]).

2 Ed. Van Riet, I: 31–2. For a translation from the Arabic see *Metaphysics* I.5, tr. Marmura, p. 22: "We say: The ideas of 'the existent,' 'the thing,' and the 'necessary' are impressed in the soul in a primary way. This impression does not require better known things to bring it about."

3 Ed. Van Riet, I: 32–3; tr. Marmura, pp. 22–3.

4 Ed. Van Riet, I: 33; 34; tr. Marmura, p. 23: "As for example, 'the existent,' 'the one thing,' and others"; p. 24: "The meaning of 'existence' and the meaning of 'thing' are conceived in the soul and are two meanings, whereas 'the existent,' 'the established,' and 'the realized' are synonyms." For a different translation of the first passage (following the Latin) see Thérèse-Anne Druart, " 'Shay' or 'Res' as Concomitant of 'Being' in Avicenna," *Documenti e studi sulla tradizione filosofica medievale* 12 (2001) pp. 125–6.

5 Ed. Van Riet, I: 34; tr. Marmura, p. 24.

affirmed of something, on the other.[6] His ensuing discussion builds on this, distinguishing between the one being that is a necessary existent in itself (God), and all others which, while being possible existents in themselves, may be rendered necessary by something else. The necessary existent in itself has no cause (I.6) and can only be one (I.7). Avicenna reaffirms in VIII.4 that it is one (unique), and he states that its quiddity is identical with its individual existence.[7]

Avicenna distinguishes between a quiddity "in which the one and the existent occur accidentally and the one and the existent inasmuch as it is one and existent."[8] By restricting the latter to the necessary existent alone, Avicenna defends its absolute simplicity. There is no quiddity for it other than "its being the Necessary Existent," and Avicenna identifies this with its "thatness," or its individual existence. Indeed, he goes on to write that the First has no quiddity.[9]

Among later Latin authors, the essence–existence distinction begins to assume a prominent place in the early thirteenth century with William of Auvergne. In his *De Trinitate* 1 (ed. Switalski, pp. 16–17), he writes that 'being' (*ens*) and 'existence' (*esse*) have various meanings (*intentiones*). Thus, we speak in one sense of (a) being (*ens*) whose essence is its existence (*esse*), and whose essence we predicate when we say it "is," so that it and its existence are one thing (*res*) in every respect. In another sense, we speak of being (*ens*) by participation insofar as it has something – its *esse* – that in no way forms one thing with its essence nor is a part of that being's essence. Its *esse* is completely outside the intelligible content (*ratio*) of the substance or essence of that being. In support he cites Axiom VII from Boethius's *De hebdomadibus*, quoted above.

In chapter 2, William notes that the word *esse* has two meanings: (1) the substance, or quiddity, or essence of a thing, and (2) what is expressed by the verb 'is' when this is affirmed of something. When *esse* is taken in this second way, it is not included in the intelligible content (*ratio*) of any thing we may apprehend, such as a human being or a donkey, with one sole

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6 See Druart, " 'Shay'," p. 135; Robert Wisnovsky, "Avicenna and the Avicennian Tradition," in P. Adamson and R. Taylor (eds.) *The Cambridge Companion to Arabic Philosophy* (Cambridge: Cambridge University Press, 2005) pp. 108–9. Robert Wisnovsky, *Avicenna's Metaphysics in Context* (Ithaca, NY: Cornell University Press, 2003) chs. 7–9, shows that Avicenna's distinction between essence and existence owes much to earlier discussions within Islamic *kalām* on the relationship between 'thing' and 'existent,' although for Avicenna these two relationships are not identical. Also see Druart, " 'Shay'," pp. 127–8 on the *kalām* background for 'thing.'

7 Following the translation of Marmura, p. 274: "The First has no quiddity other than His individual existence" (ed. Van Riet, II: 398–9). Also see ibid., tr. Marmura, p. 276; ed. Van Riet, II: 401.

8 *Metaphysics* VIII.4, tr. Marmura, p. 274; ed. Van Riet, p. 399.

9 Ibid., tr. Marmura, p. 276; ed. Van Riet, pp. 401–2. On this see Wisnovsky, "Avicenna and the Avicennian Tradition," pp. 126–7.

exception – namely, that one being of which it is said essentially because it and its *esse* are entirely the same. The implication is that in all other entities, essence or quiddity is not one and the same as *esse*. Whether he means by this that they are really distinct or only conceptually distinct, however, is disputed by modern scholars.[10] Certain texts, such as *De Trinitate* 7, strongly suggest that William has in mind a real distinction (ed. Switalski, pp. 43–4).[11] In *De universo* Ia I ch. 3, however, William refers to the existence of every caused being as separable from such a being "at least by the intellect" – thereby suggesting hesitation about whether they are also really distinct.[12]

Beginning especially with Thomas Aquinas and continuing onward into the early fourteenth century, various thinkers attempted to specify more precisely the nature of the relationship between essence and existence in created beings. Three major lines of interpretation may be discerned if one allows for variation between individual representatives of each: essence and existence are (1) really distinct, (2) really identical but conceptually distinct, or (3) distinct in some intermediate way.

REAL DISTINCTION BETWEEN ESSENCE AND EXISTENCE

It is generally agreed today that in his youthful *De ente et essentia* (1252–6) and continuing throughout his career, Thomas Aquinas defended a real distinction and composition of essence and existence (*esse*) in all finite beings – that is, a distinction that obtains in reality apart from the mind's consideration.[13] In *De ente* ch. 4 he introduces this theory after rejecting matter–form composition in created separate substances (angels). To show that they are, nevertheless, composed of actuality and potentiality, he offers a three-stage argument.

The first stage reasons from the fact that we can think of something such as a human being or a phoenix without knowing whether or not it exists, and it quickly concludes that there is a distinction between essence and existence

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[10] See Roland-Gosselin, *Le "De ente"*, p. 163; Kevin Caster, "William of Auvergne and St. Thomas Aquinas on the Real Distinction between Being and Essence," in J. Hackett *et al.* (eds.) *Being and Thought in Aquinas* (Binghamton, NY: Global Academic Publications, 2004) 75–108 (William defends a real distinction). Étienne Gilson denies this in "La notion d'existence chez Guillaume d'Auvergne," *Archives d'histoire doctrinale et littéraire du moyen âge* 15 (1946) 55–91, esp. pp. 80–4.

[11] Ed. Switalski, pp. 43–4. Caster, "William of Auvergne" p. 106 nn. 75, 76, cites some other texts in this vein from William's *De universo* IIa IIae ch. 8 (ed. 1674, I: 852aG–H).

[12] Ed. 1674, I: 594b. See Maurer's introduction to Thomas Aquinas, *On Being and Essence* (Toronto: Pontifical Institute of Mediaeval Studies, 1968) pp. 23–4; Roland-Gosselin, *Le 'De ente'*, p. 163 n. 3.

[13] For a few scholars who have denied this, see the references in John F. Wippel, *The Metaphysical Thought of Thomas Aquinas: From Finite Being to Uncreated Being* (Washington, DC: Catholic University of America Press, 2000) p. 136 n. 11.

(*esse* = act of existing) within any such being. Possibly anticipating the objection that this establishes only a conceptual distinction between the two, in a second stage Aquinas uses a process of elimination to show that if, perhaps, there is a being in which essence and act of existing are identical, this being must be unique. In every other entity, therefore, essence and act of existing cannot be identical but must be distinct. Moving from this to the third stage, Aquinas reasons that every being in which essence and act of existing are distinct must receive its existence from something else. From this, he reasons to the actual existence of an uncaused cause of existence in which essence and act of existing are identical – namely, God. Since the act of existing (*esse*) of every other being is received by its essence, in all such beings this *esse* is related to essence as act to potency, resulting in an act–potency composition even within created spiritual beings.[14] This sets the stage for his subsequent insistence in other writings that the act of existing not only accounts for the fact that created beings exist, but is also an intrinsic principle of perfection within every such being; it is the "actuality of all acts and the perfection of all perfections," not a "thing" or entity.[15]

In later writings Thomas offers several kinds of argumentation to support the real distinction and composition of essence and existence in creatures. He favors in particular those that, like stage two in the *De ente*, show that there can be at most one being in which essence and existence are identical, and that, by contrast, they must be distinct in all others.[16] He connects his views on essence and existence with the metaphysics of participation he gradually develops, and holds that every finite being may be viewed as participating in (1) the act of existing (*esse*) taken universally (*esse commune*), (2) self-subsisting *esse* (God), as in its efficient cause, and (3) its own act of existing.[17]

During Aquinas's second teaching period at Paris (1268–72), Giles of Rome, a young bachelor in theology there, was developing his own views on the essence–existence relationship. Foreshadowings of Giles's final position appear already in his Commentary on I *Sentences* (*ca.* 1271–3) and in his slightly later *Theoremata de corpore Christi* (*ca.* 1274); he works out his view in detail and defends it with many arguments in subsequent writings such as his *Theoremata*

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[14] Ed. Leonine, XLIII: 376–7. See Wippel, *Metaphysical Thought of Thomas Aquinas*, p. 136 n. 11 for references to other readings of this text; see ibid., p. 137 n. 14 for his dispute with Owens. Also see R. E. Houser, "The Real Distinction and the Principles of Metaphysics: Avicenna and Aquinas," in R. E. Houser (ed.) *Laudemus viros gloriosos. Essays in Honor of Armand Maurer, CSB* (Notre Dame, IN: University of Notre Dame Press, 2007) 74–108.

[15] See *Quaest. de potentia* 7.2 ad 9; *Summa theol.* 1a 3.4; Wippel, *Metaphysical Thought of Thomas Aquinas*, pp. 32–4, 173–5; Cornelio Fabro, *Participation et causalité selon S. Thomas d'Aquin* (Louvain: Publications universitaires,1961) p. 195.

[16] For these see Wippel, *Metaphysical Thought of Thomas Aquinas*, pp. 150–7.

[17] See ibid., pp. 110–24.

de esse et essentia (1278–85) and *Quaestiones disputatae de esse et essentia* (1285–7).[18] According to Giles, just as generation makes us understand that matter is different from form, so creation makes us realize that essence is different from existence. Hence, just as form is a certain actuality and perfection of matter and really differs from it, so *esse* is a certain actuality and perfection of essence and really differs from it.[19] Moreover, it is because essence receives and limits a really distinct existence that existence in created beings is participated and limited. Finally, such a distinction is needed to account for the fact that one can be aware of the essence of a creature even when one knows that it does not exist.[20]

At times, however, Giles refers to essence and existence as "things" (*res*) and to the distinction between them as between "thing" and "thing."[21] This language has been denounced by many as an inaccurate presentation of Aquinas's theory, and so it would be if Giles had intended his theory simply to be a repetition of Aquinas's position. Even when viewed as a theory Giles was developing in his own right, however, this particular terminology is easily subject to misinterpretation and criticism. Thus, as Henry of Ghent and Godfrey of Fontaines would point out, if one appeals to an essence "thing" and an existence "thing" to account for the metaphysical structure and created character of a finite being, the same logic should lead one to posit "sub-things," inasmuch as

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[18] On the dates for *Sent.* Bk. I and *Theoremata de corpore Christi* see the discussion by Robert Wielockx in Giles of Rome, *Apologia* (Florence: Olschki, 1985) pp. 236–40; Silvia Donati, "Studi per una cronologia delle opera di Egidio Romano. I: Le opera prima del 1285 – I commenti aristotelici," *Documenti e studi sulla tradizione filosofica medievale* 1 (1990) pp. 21–5, 71. Pasquale Porro, however, in "An Historiographical Image of Henry of Ghent," in W. Vanhamel (ed.) *Henry of Ghent. Proceedings of the International Colloquium on the Occasion of the 700th Anniversary of his Death (1293)* (Leuven: Leuven University Press, 1996) p. 391, places this *Theoremata* in 1271. In *Sent.* I.8.2.1.2 (ed. 1521, f. 52v), Giles denies that the divine existence (*esse*) differs from the divine quiddity or enters into composition with it, implying that the opposite is true of a creature's existence. See also *Sent.* I.8.2.2.1 (f. 54ra), where in the *In contrarium* he introduces the argument based on the fact that every created existence (*esse*) is limited, and in his Response argues that every creature is composed of *quod est* and *esse*. See as well *Theoremata de corpore Christi* (ed. 1481, f. 19rb–vb), where he implies that separability of actual existence from essence indicates a real distinction, and notes that only the divine essence is its *esse* and that in other beings *esse* is something added to the nature of the creature and received in it. On this see Adriaan Pattin, "Gilles de Rome, O.E.S.A. (*ca.* 1243–1316) et la distinction réelle de l'essence et de l'existence," *Revue de l'Université d'Ottawa* 23 (1953) pp. 85*–8*; Wippel, "The Relationship Between Essence and Existence in Late Thirteenth-Century Thought: Giles of Rome, Henry of Ghent, Godfrey of Fontaines, and James of Viterbo," in P. Morewedge (ed.) *Philosophies of Existence Ancient and Medieval* (New York: Fordham University Press, 1982) pp. 134–6.

[19] See *Theoremata de esse* 5 (ed. Hocedez, pp. 19–20); *Quaest. de esse* 9 (ed. 1503, ff. 20vb–21ra).

[20] *Quaest. de esse* 11 (ed. 1503, ff. 24vb–25ra).

[21] See *Theoremata de esse* 16 (ed. Hocedez, p. 101), 19 (pp. 127, 134): "Just as matter and quantity are two things (*duae res*), so essence and *esse* are two really different things"; *Quaest. de esse* 9 (ed. 1503, f. 20vb); 11 (f. 24vb); 12 (f. 28ra): "*esse* itself is a certain absolute thing (*res*) superadded to essence."

existence, conceived of as a "thing," would require its own "sub-essence-thing" and "sub-existence-thing," and so on *ad infinitum*. To avoid this, one should admit that the original essence exists without the addition of a distinct "thing" known as *esse*.[22] It should be noted, however, that earlier in his *Theoremata de corpore Christi* Giles, while still developing his position, had explicitly denied that the existence of a given entity is itself an essence, making it unlikely that he then viewed it as a thing (ff. 19vb–20ra). Unfortunately, his later talk of a distinction between "things" soon came to be accepted by critics as a standard way of referring to all theories of real distinction between essence and existence.[23]

IDENTITY BETWEEN ESSENCE AND EXISTENCE

At the opposite end of the spectrum lie positions that completely reject any kind of real distinction and composition of essence and existence in finite beings, including created separate substances. In the early to mid-1270s the Paris master of arts, Siger of Brabant, defends such a view in his *Quaestiones in Metaphysicam*, Introduction, q. 7. There he seeks to ascertain whether the being (*ens*) or existence (*esse*) of caused beings belongs to their essence or is something added to it.[24] He introduces his own solution by listing different positions. Some (Avicenna and Albert the Great) hold that because the terms 'thing' (*res*) and 'being' (*ens*) do not have the same meaning (*intentio*), *esse* must be something added to essence. In rejecting this position, Siger considers the argument in its favor that if existence (*esse*) pertains to the essence of something, then that thing exists of itself and is uncaused. He counters that the term 'of' (*ex*) is equivocal when applied to causation. To say that a thing exists *of itself* can denote the order of formal causality (which is compatible with a thing's being caused efficiently) or of efficient causality (which is not).[25]

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[22] See Henry of Ghent, *Quodlibet* I.9 (*Opera* V: 51) and Godfrey of Fontaines, *Quodlibet* III.1, arg. 3 (*Philosophes Belges* II: 164 [long vers.], II: 303 [short vers]). Godfrey refers to Averroes's critique of Avicenna for having regarded *ens* and *unum* as dispositions added to the essence of a thing (for Averroes see *In Metaph* IV.3 [ed. 1562, VIII: 67ra]).

[23] For emphasis on the difference between Giles's theory and that of Thomas see Edgar Hocedez's introduction to Giles of Rome, *Theoremata de esse*, pp. 62–7, 116–17; Jean Paulus, *Henri de Gand. Essai sur les tendances de sa métaphysique* (Paris: Vrin, 1938) pp. 283–4; Peter Nash, "Giles of Rome on Boethius' 'Diversum est esse et id quod est'," *Mediaeval Studies* 20 (1950) pp. 57–8, 90–1; "Accidentality of *Esse* According to Giles of Rome," *Gregorianum* 38 (1957) 103–15. For more positive evaluations of Giles's theory see Gregorio Suárez, "El pensamiento de Egidio Romano en torno a la distinción de esencia y existencia," *La Ciencia Tomista* 75 (1948) 66–99, 230–72, esp. pp. 251–4, 262–3, 266–8, 270–1; Pattin, "Gilles," pp. 80*–116*.

[24] Munich ms. (ed. Dunphy, p. 41); Cambridge ms. (ed. Maurer, p. 30).

[25] The Munich ms. (pp. 43–4) assigns this to Avicenna, whereas according to the Cambridge ms. (p. 32) both Avicenna and Albert were deceived by it.

Siger next assigns an intermediate position to some (Thomas Aquinas) who hold that existence (*esse*) is something added to the essence of a thing – something that does not pertain to that thing's essence, is not an accident, and is, as it were, constituted by (*per*) the essence or the principles of the essence. While Siger comments that this position is true, he acknowledges that he does not understand the way it is presented. He counters that to hold that the *esse* of a thing is not identical with (1) the thing itself, nor (2) a part of its essence, such as matter or form, nor (3) an accident, is to posit some fourth nature among beings. Moreover, to say that the *esse* of a thing is constituted by the principles of its essence is really just to say that it is the thing itself.[26]

Siger himself holds that the *esse* of a caused thing does belong to its essence. It is not something added to the essence in such a way that 'thing' and 'being' would signify different "intentions"; rather, they signify one intention.[27] In support, he notes that some names signify the same essence, but according to different modes of signifying – one through the mode of act and the other through the mode of habitual condition (*habitus*). It is in this way that 'being' (*ens*) and 'thing' (*res*) signify the same essence: 'being' signifies *per modum actus*, and 'thing' signifies *per modum habitus* or *per modum potentiae*. Accordingly, this is how *esse* (existence) stands in relation to thing or essence.[28] Siger follows Averroes in criticizing Avicenna for failing to distinguish between names that signify different intentions or essences and names that signify the same essence in different modes.[29]

Siger rejects an opening argument (which he attributes to Thomas) that bases itself on the claim that everything other than the First Being must recede from its simplicity by being composed and that separate intelligences, not being composed of matter and form, must be composed of essence and existence. In a first rebuttal (which Siger claims is not definitive), he counters that such entities recede from the First Being (pure act) simply because they approach the nature of potentiality to a greater or lesser degree. His second rebuttal is based on the distinction in such entities between their substance and the intelligible

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[26] Munich ms. (pp. 44–5); Cambridge ms. (pp. 32–3). Siger is paraphrasing and reacting to Aquinas, *In Metaph.* IV.2 (ed. Cathala and Spiazzi, n. 558). See Wippel, "Thomas Aquinas and Siger of Brabant on Being and the Science of Being as Being," *Modern Schoolman* 82 (2005) pp. 155–6; Ruedi Imbach, "Averroistische Stellungnahmen zur Diskussion über das Verhältnis von *Esse* und *Essentia*: von Siger von Brabant zu Thaddeus von Parma," in A. Maierù and A. Paravicini Bagliani (eds.) *Studi sul xiv secolo in memoria di Anneliese Maier* (Rome: Edizione di Storia e Letteratura, 1981) pp. 309–16.

[27] Munich ms., p. 45; Cambridge ms., p. 33.   [28] Munich ms., p. 45; Cambridge ms., pp. 33–4.

[29] Munich ms. (which speaks of different "intentions"), pp. 45–6; Cambridge ms. (different "essences"), p. 34.

species by means of which they understand.[30] Surprisingly, however, in his final *Quaestiones in Librum de causis*, he uses language in certain passages concerning intelligences that reflects Aquinas's texts and that seems to imply that Siger ended by adopting a view similar to Thomas's theory of the real distinction and composition of essence and *esse*.[31]

   Godfrey of Fontaines, a student in arts at Paris during Siger's period as a master in that faculty and subsequently himself master in theology, was familiar with many of Siger's views. This is evident from writings contained in various manuscripts in Godfrey's personal library, including an abbreviated copy of Siger's *Quaestiones in Metaphysicam*.[32] In his *Quodlibet* II, q. 2 (Easter 1286), Godfrey comments that one might hold that existence is the act of essence and therefore a thing (*res*) that is really distinct from it (as Giles of Rome believed), or that *esse* is really identical with essence and differs from it only logically (which will prove to be Godfrey's view) or intentionally (Henry of Ghent's position; see below). Here he comments only that it is more probable that existence (*esse existentiae*) is not a distinct thing from essence (*Phil. Belges* II: 60), thereby setting the stage for his subsequent definitive rejection both of a real distinction and of an intentional distinction between them.

   In *Quodlibet* III, q. 1 (Christmas 1286), Godfrey presents at length and criticizes extensively Giles's theory of a real distinction between existence and essence as well as, in lesser detail, Henry's view that they are intentionally distinct.[33] Among his arguments against a real distinction is one that Godfrey connects with Aristotle's *Metaphysics* IV.2 (1003b26–35) and with Averroes's commentary on the same, to the effect that being involves less addition than

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[30] Munich ms., pp. 42 (arg. 7), 47–8 (ad 7); Cambridge ms., pp. 31 (arg. 7), 35–6 (ad 7).

[31] *Quaest. in Librum de causis* 22 (ed. Marlasca, p. 93 [lines 60–8]; 53 (p. 184 [33–9]). On this see Marlasca's introduction, p. 21 n. 20; Fernand Van Steenberghen, *Maître Siger de Brabant* (Louvain: Publications universitaires, 1977) pp. 291–2; François-Xavier Putallaz and Ruedi Imbach, *Profession, philosophe: Siger de Brabant* (Paris: Cerf, 1997) pp. 153, 163; Wippel, "Thomas Aquinas and Siger," pp. 162–3; Catherine König-Pralong, *Avènement de l'aristotélisme en terre chrétienne* (Paris: Vrin, 2005) pp. 49–52; also pp. 37–48 (background).

[32] See Godfrey's student notebook (Paris, Bibliothèque Nationale lat. 16297). On this and other works collected and/or copied by Godfrey see J. J. Duin, "La bibliothèque philosophique de Godefroid de Fontaines," *Estudios Lulianos* 3 (1959) 21–36, 137–60; John F. Wippel, "Godfrey of Fontaines at the University of Paris in the Last Quarter of the Thirteenth Century," in J. A. Aertsen *et al.* (eds.) *Nach der Verurteilung von 1277. Philosophie und Theologie an der Universität von Paris im letzten Viertel des 13. Jahrhunderts* (Berlin: De Gruyter, 2001) 359–89. For further information on Godfrey's student notebook, see Andrea Aiello and Robert Wielockx, *Goffredo di Fontaines, aspirante baccelliere Sententiario: le autografe "Notule de scientia theologie" e la cronologia del ms. Paris BNF Lat. 16297* (Turnhout: Brepols, 2008).

[33] His presentation of certain arguments in support of a real distinction confirms his knowledge of Giles's position; see John F. Wippel, *The Metaphysical Thought of Godfrey of Fontaines: A Study in Late Thirteenth-Century Philosophy* (Washington, DC: Catholic University of America Press, 1981) pp. 47–53.

does unity to that of which it is affirmed. But since unity adds nothing real to essence, neither does being (*ens*) and, therefore, neither does *esse*. Moreover, unless one grants that each thing is a being (*ens)* by reason of itself and not by some superadded *esse*, one would have to account for the being of this super-added factor in the same way to infinity.[34] In defending the real identity of essence and existence, Godfrey argues that a concrete noun, an abstract noun, and a verb do not signify really distinct things, but differ merely in their mode of signifying. If this is true of *currens* (a runner), *cursus* (race), and *currere* (to run), so is it true of *ens* (being), *essentia* (essence), and *esse* (to exist).[35]

Godfrey rejects the argument that without a real distinction of essence and existence, the existence (*esse*) of created entities would not be participated and they would be as simple as God. In *Quodlibet* III, q. 1 he counters that the essence of a created being is participated and more composite than the divine essence not by including diverse things (*res)*, but by reason of one and the same thing that is both potential in relation to more perfect things and actual in itself.[36] In *Quodlibet* VII, q. 7, he explains that even if angels do not fall into a natural genus, they do fall into a logical genus because any such being may be regarded as potential insofar as it is less perfect than higher beings and as actual insofar as it is more perfect than lower beings (III: 355, 357–9). In support he cites Proposition 2 from Proclus's *Elements of Theology*: "That which participates in the One is both one and not one." Godfrey maintains that this kind of act–potency composition is not purely imaginary or fictitious, even though it does not involve really distinct things. In developing this solution he was likely influenced by the one anticipated by Siger of Brabant (at note 30 above), and certainly by an anonymous set of questions contained in a manuscript in his personal library.[37]

INTERMEDIATE DISTINCTION BETWEEN ESSENCE AND EXISTENCE

In his *Quodlibet* I, q. 9 of 1276, Henry of Ghent addresses the question of whether the essence of a creature is its own existence (*esse*). He presents a

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[34] *Phil. Belges* II: 164–5, 303–4 (short vers.). For Averroes see *In Metaph.* IV.3, ff. 67ra–va.

[35] *Phil. Belges* II: 164–5, 303–4 (short vers.). For similar reasoning see his late *Quodlibet* XIII. 3 (*Phil. Belges* V: 207–8), dating *ca.* 1297–8.

[36] *Phil. Belges* II. 306 (short vers.). Also see *Quodlibet* III.3 (*Phil. Belges* II: 186 [long vers.], II: 309 [short vers.]).

[37] Paris, Bibliothèque Nationale lat. 16096. On this see John F. Wippel, "Possible Sources for Godfrey of Fontaines' Views on the Act-Potency Composition of Simple Creatures," *Mediaeval Studies* 44 (1984) 222–44; Robert Wielockx, "Le ms. Paris Nat. lat. 16096 et la condamnation du 7 mars 1277," *Recherches de théologie ancienne et médiévale* 48 (1981) 227–37.

series of opening arguments in support of a real distinction between them, based apparently on his knowledge of the position already developed by Giles of Rome in the earlier 1270s, and he submits this position to severe criticism, drawing on certain arguments already advanced by Siger of Brabant.[38] Henry himself refuses to say that any creature is pure and subsisting *esse;* at the same time, he does not want to deny completely that a creature is its *esse*, since the creature is not really distinct from it.

Drawing upon Avicenna's *Metaphysics* V, Henry distinguishes between a certain *esse* that a thing has essentially of itself ("essential being" [*esse essentiae*]), and an existential *esse* that it receives from something else (its "being of actual existence" [*esse actualis existentiae*]). A creature has the first kind of *esse* essentially, but nonetheless by participation insofar as it has a formal exemplar idea in God's intellect. By reason of this *esse* it falls under one of the ten Aristotelian categories of being and can be conceptualized before it actually exists. As for the second kind of *esse* (actual existence), a creature possesses this not through its essence but only from God as an effect of the divine will, which produces it in accord with its exemplar in the divine mind. This kind of *esse* has the mode of an accident insofar as it is added to essence, but it is not an accidental thing (*res accidentalis*). Rather it is through it that a thing exists (*Opera* V: 53–4).

The first kind of *esse* (*esse essentiae*) differs from the essence of a creature only conceptually, and so the essence can be said to be its *esse* taken in this sense.[39] The second, existential *esse* (*esse actualis existentiae*), although not really distinct from the essence of a creature, differs from it not merely conceptually but also according to intention (a new and intermediate kind of distinction that Henry has introduced). Accordingly, a creaturely essence cannot be said to be identical with its *esse* taken in this sense – that is, with its existential *esse*. Only God is identical with his *esse* understood this way (*Opera* V: 54–5).

In *Quodlibet* X, q. 7 (Christmas 1286), Henry replies to a lengthy discussion and critique of his position in Giles of Rome's *Quaestiones disputatae*, qq. 9, 11

[38] On Henry's knowledge of Siger's argumentation see Imbach, "Averroistische Stelllungnahmen," pp. 316–19; König-Pralong, *Avènement*, pp. 64, 67. Henry's references to Giles's position are so pointed that some suggest Giles may have participated actively in Henry's *Quodlibet* I. See Hocedez's introduction to Giles of Rome, *Theoremata de esse*, p. 39; Porro, "Historiographical Image," p. 391.

[39] Some years later, however, Henry would change his position concerning this and propose an intentional distinction even between essence and its *esse essentiae*. See his *Summa quaest. ord.* 21.4, in the reworked version in José Gómez Caffarena, *Ser participado y ser subsistente en la metafísica de Enrique de Gante* (Rome: Pontificia Universitas Gregoriana, 1958) pp. 263–6 (text) and 103–4 (discussion). Also see Paulus, *Henri de Gand*, pp. 311–14; Walter Hoeres, "Wesen und Dasein bei Heinrich von Gent und Duns Scot," *Franziskanische Studien* 47 (1965) pp. 146 n. 77, 156 n. 14; Pasquale Porro, "Possibilità e *Esse essentiae* in Enrico di Gand," in Vanhamel, *Henry of Ghent: Proceedings of the International Colloquium on the Occasion of the 700th Anniversary of his Death*, pp. 235–6; Wielockx, "Henry of Ghent," 298–9.

(1285–6).[40] Here, Henry reaffirms the position he had defended in his *Quodlibet* I. Against Giles, he denies that actual existence adds anything absolute to essence that would be added to it as form is added to matter; it simply adds a relationship to God as its (efficient) creating and conserving principle, and therefore should be viewed not as a distinct thing added to essence, but as another "intention" (*Opera* XIV: 152–61). Therefore actual existence (*esse existentiae*) does not differ really from essence, nor merely according to reason, but in an intermediary fashion, intentionally, as do rational and animal, which, he explains at some length, differ more than merely conceptually, but less than really (*Opera* XIV: 164–6). In his *Quodlibet* XI, q. 3, Henry explains that from his denial that actual existence (*esse existentiae*) adds anything real to essence it does not follow that a creature's essence is identical with its actual *esse*; for actual existence adds a relation involving another "intention," which is added to a creature's essence as something accidental. It is added not as a real accident, however, but as an intentional accident.[41]

Succeeding Giles of Rome in the Augustinian chair of theology at Paris in 1292 or 1293,[42] James of Viterbo nicely summarizes, in his *Quodlibet* I q. 4, the three major positions on the essence–*esse* relationship as represented above by Giles, Henry, and Godfrey. While not in full agreement with any of them, James diplomatically tries to find some good in each as he presents his own position as probable (ed. Ypma, pp. 46–7, 54–6). Just as to give light (*lucere*) is to light (*lux*), he claims, so is *esse* (taken as *to exist*) to essence – that is, as the concrete is to the abstract. While the concrete term '*esse*' signifies the same thing as the abstract term '*essence*' in its primary meaning, in creatures '*esse*' includes in its secondary meaning something more than essence: namely, other features (accidents) that must be joined with essence when it exists actually. Therefore, in its secondary meaning '*esse*' signifies something in addition to essence that really differs from it. And since being (*ens*) is expressed as a concrete subject (*suppositum*), James equates the distinction between *esse* and essence with that between a *suppositum* and essence.[43] Therefore, when one takes *esse* in its primary meaning, it cannot

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[40] On the controversy between Henry and Giles see Paulus, "Les disputes"; Köning-Pralong, *Avènement*, pp. 67–99.

[41] Ed. 1518, II: 441rv, ad 5. Here Henry is responding to six truths that Giles had maintained (*Quaest. de esse* 11) cannot be defended without acceptance of the real distinction.

[42] Eelcko Ypma, "Recherches sur la carrière scolaire et la bibliothèque de Jacques de Viterbe †1308," *Augustiniana* 24 (1974) 247–82; "Recherches sur la productivité littéraire de Jacques de Viterbe jusqu'à 1300," *Augustiniana* 25 (1975) 223–82. On James's date of promotion, see John F. Wippel, "The Dating of James of Viterbo's Quodlibet I and Godfrey of Fontaines' Quodlibet VIII," *Augustiniana* 24 (1974) 348–86.

[43] *Quodlibet* I.4, ed. Ypma, pp. 47–9, 56. See Mark Gossiaux, "James of Viterbo on the Relationship between Essence and Existence," *Augustiniana* 49 (1999) 73–107. On the similarity between James's solution to this issue and Godfrey's solution to the nature–supposit relationship see John F. Wippel,

be said to be really distinct from essence, as defended either by Thomas or by Giles.

A real distinction between *esse* and essence would also be rejected by most subsequent thinkers outside the Thomistic tradition: for instance, by John Duns Scotus, John of Jandun, the early fourteenth-century Italian Latin Averroist Thaddeus of Parma, William of Ockham, and also, more surprisingly, by the early fourteenth-century Dominican promoter of Aquinas and his cause, Hervaeus Natalis.[44]

"James of Viterbo on the Essence-Existence Relationship (Quodlibet 1, q. 4), and Godfrey of Fontaines on the Relationship between Nature and Supposit (Quodlibet 7, q. 5)," in *Sprache und Erkenntnis im Mittelalter* (Miscellanea Mediaevalia 13/2) (Berlin: De Gruyter, 1981) 777–87.

[44] For Scotus see *Ordinatio* IV.11.3 n. 46 (ed. Vivès) and *Ordinatio* I.8.1.2, nn. 32–4 (ed. Balić), on the qualified "composition" he assigns to created intelligences. On whether Scotus assigns a formal distinction or a modal distinction to essence and existence, see A. J. O'Brien, "Duns Scotus' Teaching on the Distinction between Essence and Existence," *New Scholasticism* 38 (1964) 61–77; Allan B. Wolter, "The Formal Distinction," in J. K. Ryan and B. M. Bonansea (eds.) *John Duns Scotus, 1265–1965* (Washington, DC: Catholic University of America, 1965) 45–60, esp. pp. 54–6. For Ockham see *Summa logicae* III-2 ch. 27 and *Quodlibet* II.7. On this see Armand Maurer, *The Philosophy of William of Ockham in the Light of its Principles* (Toronto: Pontifical Institute of Mediaeval Studies, 1999) pp. 60–2. On Buridan and on Thaddeus of Parma see Imbach, "Averroistische Stellungnahmen," pp. 326–39; on Hervaus, see ibid., pp. 324–5.

FORM AND MATTER

ROBERT PASNAU

The first unquestionably big idea in the history of philosophy was the idea of form. The idea of course belonged to Plato, and was then domesticated at the hands of Aristotle, who paired form with matter as the two chief principles of his metaphysics and natural philosophy. In the medieval period, it was Aristotle's conception of form and matter that generally dominated. This was true for both the Islamic and the Christian tradition, once the entire Aristotelian corpus became available. For this reason, although there is much to say about the fate of Platonic Forms in medieval thought, the present chapter will focus on the Aristotelian tradition.[1]

Aristotelian commentators have been puzzled by form and matter for as long as there have been Aristotelian commentators. Indeed, it would not be too much to say that these are topics about which Aristotelians have never formed a very clear conception, and that their failure to do so was the principal reason why Aristotelianism ceased to be a flourishing research program from the seventeenth century onward. For those who aspire to a modern revival of Aristotelianism, the concepts of *form* and *matter* can easily take on the aspect of a kind of Holy Grail, such that if only we could get these ideas clearly in focus, we could see our way forward on any number of philosophical fronts, such as the union of mind and body, the coherence and endurance of substances, the nature of causality, and so on. The historical record, however, suggests that this hope is a snare and a delusion, insofar as there has never been any such thing as

[1] Since medieval Latin before 1200 proceeded in ignorance of Aristotle's metaphysics and natural philosophy (see Chapter 4), one might suppose that it would have little to say about form and matter in anything like an Aristotelian sense. In fact, this is not always the case. Peter Abaelard works with a sophisticated conception of form and matter, although he treats these concepts in a highly reductive fashion. See Peter King, "Peter Abelard," in E. Zalta (ed.) *The Stanford Encyclopedia of Philosophy*: http://plato.stanford.edu. Gilbert of Poitiers likewise gives form an important role in his thought (see John Marenbon's entry on Gilbert of Poitiers in J. Gracia and T. Noone, *A Companion to Philosophy in the Middle Ages* [Oxford: Blackwell, 2003] p. 264). See also Chapter 49.

the theory of form and matter. Although medieval philosophers of all kinds used this terminology incessantly, it had no more of a fixed meaning than does the ubiquitous contemporary philosophical talk of "properties." Hence, the most a general survey of the topic can do is consider some of the more important areas of agreement and disagreement.

UNIVERSAL HYLOMORPHISM

Our default theory of bodies today is taken from the seventeenth century, though it springs largely out of ancient atomism: we take material substances to be constituted by their integral parts, and to be nothing more than the sum of those parts. On this picture, the bodies we are ordinarily acquainted with are just a collection of smaller bodies, perhaps with the further proviso that the whole be assembled in a certain way. The rightness of this picture can seem so self-evident as to require no defense. To medieval philosophers working in the Aristotelian tradition, however, this analysis would seem so incomplete as to be laughable. On their model, although bodies are composed of other bodies, this sort of analysis never gets to the fundamental constituents of the material world, however far down it goes, because it frames the analysis in the wrong way. For an Aristotelian, the fundamental constituents of physical bodies are not integral parts, but the metaphysical parts of form and matter.

On one understanding of matter, it is the counterpart of form – the stuff that gets informed – so that whenever there is a form there must also be some matter that serves as its subject. On this conception, there will often be hierarchies of matter, with the most basic stuff, *prime matter*, at the bottom, and various form–matter composites at higher levels, which may themselves be conceived as the matter for some further form. Wood, for example, is a form–matter composite that can itself serve as the matter of a bed (see Aristotle, *Phys.* II.1).

This conception of matter lends itself naturally to universal hylomorphism: the doctrine that every (created) substance is a composite of form and matter. Perhaps the most influential proponent of this view was Solomon ibn Gabirol, the eleventh-century Jewish philosopher and poet. According to Gabirol, everything that exists has a form, because "every existence of a thing comes from form," and moreover "every difference [between things] occurs only through form" (*Fons vitae* III.39). These claims are relatively uncontroversial, inasmuch as all beings, material and spiritual, were standardly viewed as containing some form, and such forms are what give character to otherwise homogeneous matter. Gabirol's further, highly controversial claim is that all created substances also contain matter:

[A]ll things are composed of matter and form. That is to say, a body at the lower extreme [of the hierarchy of being] – namely, a substance having three dimensions – is composed of matter and form. And if the whole of what exists is a continuum extended from the highest extreme to the lowest extreme, and the lowest extreme is composed of matter and form, then it is clear from this that the whole of what goes from the uppermost extreme high to the lowest extreme is also composed of matter and form.

(*Fons vitae* IV.6)

Many early scholastic authors, especially Franciscans, embraced this sort of view. From the time of Albert the Great and Thomas Aquinas, however, the view fell entirely out of favor, replaced by the idea that matter occurs only in the corporeal realm. Hence there arose the linkage we take for granted today, between corporeality and materiality, so that to be a body (*corpus*) is just to have matter.[2]

One way to confine matter to a narrower range of entities would be to restrict form as well to the corporeal realm. This strategy does not go very deep, however, inasmuch as it leaves untouched the principal rationale for universal hylomorphism – namely, to account for the mix of actuality and potentiality found everywhere among creatures, material and spiritual. That forms are what give actuality to their subjects, whereas matter is the corresponding potentiality for that subject to enter into a certain state, by acquiring a form – these are perhaps the only truly uncontroversial things that can be said about form and matter. This suggests that wherever there is the capacity for change, there will be both form and matter.

In response, one might try denying that spiritual entities – celestial intelligences, human souls – have any sort of potentiality for being affected in any way. This, however, would introduce a radical discontinuity among creatures that medieval authors were generally unprepared to accept. Aquinas, for

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[2] On hylomorphism among the early scholastics, see Erich Kleineidam, *Das Problem der hylomorphen Zusammensetzung der geistigen Substanzen im 13. Jahrhundert, behandelt bis Thomas von Aquin* (Breslau: Tesch, 1930); Odon Lottin, *Psychologie et morale aux XIIᵉ et XIIIᵉ siècles* (Gembloux: Duculot, 1948–60) I: 427–60; Richard Dales, *The Problem of the Rational Soul in the Thirteenth Century* (Leiden: Brill, 1995); R. James Long, "Of Angels and Pinheads: The Contributions of the Early Oxford Masters to the Doctrine of Spiritual Matter," *Franciscan Studies* 56 (1998) 237–52. Among Franciscan authors, see Bonaventure (*Sent.* II.3.1.1.1c, II.17.1.2c) and John Pecham (*Quaest. de anima* 4), and the detailed discussion in Theodore Crowley, *Roger Bacon: The Problem of the Soul in his Philosophical Commentaries* (Leuven: Institut Supérieur de Philosophie, 1950) ch. 2. For Albert the Great, see *Sent.* II.3.4c, *In De an.* III.2.9, and James Weisheipl, "Albertus Magnus and Universal Hylomorphism: Avicebron," in F. Kovach and R. Shahan (eds.) *Albert the Great Commemorative Essays* (Norman: University of Oklahoma Press, 1980) 239–60. On Gabirol, and especially the Neoplatonic background to his thought, see Lenn Goodman (ed.) *Neoplatonism and Jewish Thought* (Albany, NY: State University of New York Press, 1992).

instance, accepts Gabirol's basic assumption in the passage quoted above, that what is found at the lower levels of creation will be found at the higher levels. *All* created substances exhibit complexity and changeability, which is to say that they exhibit potentiality and actuality. But Aquinas insists that not all potentiality is material potentiality:

> To receive, to be subjected, and other such things do not apply to the soul and to prime matter in the same way (*rationem*), because prime matter receives a thing through transformation and motion. And because all transformation and motion goes back to local motion as to what is first and most common (as is proved in *Physics* VIII), we get the result that matter is found only in those cases where there is the potentiality for location. But only corporeal things, which are circumscribed to some place, are of this sort. Hence matter is found only in corporeal things, with respect to how the philosophers have talked about matter, unless one wants to use 'matter' equivocally.
>
> (*Quaest. de anima* 6c)

The argument aims to establish a general characterization of material change, so that it can be distinguished from spiritual change. Only things whose changes occur in virtue of local motion – and so only things that occupy place – can undergo material change. This limits material change to bodies, and so limits matter to bodies.[3] Aquinas's closing reference to a possible "equivocal" use of matter recognizes that someone might want to treat any sort of potentiality as matter, thereby retaining universal hylomorphism. Since Aquinas accepts that all creatures contain potentiality, inasmuch as they are a composite of being and essence (see Chapter 45), he can object to this locution only on the grounds that it would equivocate between very different senses of what matter is. It is much better, he claims, to restrict matter to the corporeal realm.

PRIME MATTER

When matter is restricted to the corporeal realm, the notion of *prime matter* takes on a more precise meaning – not just as the basement level of any hylomorphic hierarchy, but more specifically as the stuff in virtue of which substances count as *corporeal* substances. This, at any rate, is what the rationale that leads to restricting matter to the corporeal realm naturally suggests. At the same time, however, the

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[3] Aquinas's argument is liable to misinterpretation in several respects. First, although the text literally says that all change "reduces" to local motion, Aquinas does not mean – and does not understand *Physics* VIII (at 260a27–261a27) to assert – that a reductive account of qualitative change in terms of local motion is possible. He means only that, since bodies act on other bodies in virtue of spatial proximity, local motion is always a basic and necessary condition for the onset of any material change. Second, Aquinas believes that spiritual substances can literally have location. God, for instance, is literally everywhere (*Summa theol.* 1a 8.3). But the actions of spiritual agents *need not* involve any sort of local change.

logic of the form–matter distinction tends to drain the concept of *prime matter* of all content, making it very hard to see what exactly prime matter might be, or might do. This tendency appears in its most extreme form in Aquinas, who treats prime matter as pure potentiality to such a degree that it cannot possibly exist on its own, or even be understood on its own, not even by God.[4] Yet although it would become a scholastic platitude to describe prime matter as pure potentiality, few later scholastics were willing to go as far as Aquinas in depriving prime matter of all actuality. Even Domingo de Soto, an influential sixteenth-century Thomist, would feel obliged to postulate within prime matter an "essential metaphysical actuality" that gives matter its distinctive character – a conclusion that, he remarks, "seems so certain to me that there can be no question about it, except in name" (*In Phys.* I.5).

The worry that prime matter, conceived of as nothing but potentiality, would lack character entirely, was stated forcefully by John Duns Scotus and then William of Ockham. Contrary to Aquinas's claim that prime matter by itself would lack even existence, Ockham claims that "matter is a kind of thing that actually exists in the natural realm" (*Summula philosophiae naturalis* I.9). It must be so, he argues, because matter is a real principle of corporeal substances, but "that which is not an actual entity can be a part or principle of no being" (ibid., I.10). Scotus had said much the same thing, but in somewhat more cautious terms, remarking that "if you ask whether or not matter ought to be called an actuality, I have no wish to dispute over names." What is important, according to Scotus, is that "matter is a true reality" and "a positive being" (*Lectura* II.12 [ed. Vatican XIX nn. 38, 37]). On the usual reading of Aquinas, these are claims to which he, too, would assent; this raises the possibility that the dispute over whether matter has some actuality just is, in large part, a terminological dispute. Scotus, however, treats the strict "pure potentiality" line as tantamount to denying that matter is a thing in its own right, distinct from form, and there is indeed room to wonder whether this is correct, or even whether it might be Aquinas's intended view.[5]

The chief argument for prime matter having actuality was that it could not otherwise serve as the stuff that endures beneath every change, both substantial

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[4] For Aquinas on prime matter's dependence on form, see *Quodlibet* III.1.1; on its intelligibility, see *Quaest. de veritate* 3.5c and *Summa theologiae* 1a 15.3 ad 3 (see also John Wippel, *The Metaphysical Thought of Thomas Aquinas: From Finite Being to Uncreated Being* [Washington, DC: Catholic University of America Press, 2000] ch. IX). The tendency appears in many other authors. Gabirol, for instance, insists that matter without form must lack being (*Fons vitae* IV.5), as does Avicenna (*Metaphysics* II.3).

[5] For Scotus on prime matter, see also *Quaest. in Meta.* VII.5. For a reading of Aquinas as denying that prime matter has any real ontological standing, see Robert Pasnau, *Thomas Aquinas on Human Nature* (Cambridge: Cambridge University Press, 2002) ch. 1.

and accidental. On this conception of prime matter's role, it may not need any special sort of character. But if matter is also to play a role in explaining the corporeality of physical substances, then it must presumably be more than just a bare, purely potential, substratum. Specifically, since the defining character of *body* is three-dimensionality, prime matter might naturally be supposed to account for extension. This idea, however, was extremely controversial. The usual medieval stance was to distinguish prime matter from extension, but there was a wide range of possible views. Both Avicenna and Averroes, for instance, had conceived of extension as a form that inheres directly in prime matter, prior to the substantial form that makes the matter be a stone or a horse. They disagreed, however, on how to characterize that form. For Avicenna, extension results from a substantial form – what would be known as the *forma corporeitatis* – that endures through all change and accounts for the corporeal character of matter. Averroes, in contrast, conceived of extension as an accidental form that inheres in prime matter perpetually but in such a way that prime matter apart from subsequent forms has merely "indeterminate" dimensions. Both of these views were influential on the later Latin tradition, but competed against the view – associated with Aquinas – that extension (or quantity) is posterior to the substantial form, just as other accidents are. On this view, when prime matter is conceived of apart from form, it lacks extension altogether.[6]

The notion of extensionless prime matter is, of course, puzzling – in part because it is unclear how we are to conceive of prime matter, if not as extended. Averroes took the rather surprising position that prime matter is numerically one everywhere it exists, even within corporeal substances:

> We have already said elsewhere that prime matter is numerically one. Let us then demonstrate how numerically one thing can be found in many places. This is not found in what is actual. But in what is potential it can be said that a thing is numerically one and common to many, and that it does not have the differentiating features by which [the many] differ from each other in singular individuals. And because they have no indivisible differences and they lack forms, through which is found numerical plurality, these things are said to be one.
>
> (*In Meta.* XII.14)

Averroes's view seems to be that prime matter is located throughout space, but that since it is the same everywhere, this does not count as being extended. This sort of extensionless spreading out, so as to exist wholly in multiple

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[6] For Avicenna, see *Metaphysics* II.2–3, and the discussion in Abraham Stone, "Simplicius and Avicenna on the Essential Corporeity of Material Substance," in R. Wisnovsky (ed.) *Aspects of Avicenna* (Princeton, NJ: Markus Wiener, 2001) 73–130. For Averroes, see *De substantia orbis* ch. 1, and Arthur Hyman, "Aristotle's 'First Matter' and Avicenna's and Averroes' 'Corporeal Form'," in S. Lieberman *et al.* (eds.) *Harry Austryn Wolfson Jubilee Volume* (Jerusalem: American Academy for Jewish Research, 1965) pp. 400–6.

places at the same time, is more often associated with immaterial entities like the soul, or else with universal properties. Averroes, however, denies that a form, or anything actual, could be present in many places. This mode of existence is possible for prime matter, however, given its lack of actuality, inasmuch as there is nothing to distinguish one bit of matter from another. This is a view that would be defended in the early fourteenth century by the leading Latin proponent of Averroism, John of Jandun (*In Phys.* I.24).

If prime matter is strictly and purely potential, then it must lack any intrinsic distinctness. Thus, according to the fifteenth-century Thomist John Capreolus, prime matter is "actually indivisible and one, but potentially divisible, multiple, and plural." Or, to avoid the impression that prime matter is *actually* anything, he goes on to gloss "actually indivisible" as "not actually divisible" (*Defensiones* II.13.1.3). To others, however, it seemed that prime matter had to have some feature that at least lent itself to extension. According to Scotus, prime matter is not intrinsically extended, but nevertheless it has "substantial parts" – parts not necessarily spread out in space, but there nevertheless, and apt to be spread out, when informed by quantity.[7] Scotus's idea that prime matter could have parts and yet lack extension struck Ockham as needlessly obscure, as did the Averroistic view that prime matter could be spread out without having parts at all, being numerically one at each location. Ockham's own conclusion, instead, is that prime matter is intrinsically extended:

It is impossible for matter to exist without extension, because it is not possible for matter to exist unless it has part distant from part. Hence although the parts of matter can be united in the way in which the parts of water and air can be united, still the parts of matter can never exist in the same place.

(*Summula* I.13)[8]

On this view, prime matter is necessarily spread out in space, part-wise, in virtue of its own nature. Since this is a theory of prime matter, not of body, we are still a long way from Descartes's later identification of body with extension. Still, building extension into the notion of prime matter gives Ockham the resources to reduce much of the standard scholastic ontology – especially the accidental category of Quantity – to nothing more than matter variously situated. This move thus serves as a critical foundation for his parsimonious, nominalistic ontology (see Chapter 48).

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[7] Scotus, *Reportatio* II.12.2 n. 7 (ed. Wadding XI: 322b; cf. VI.2: 683). See also Paul of Venice, *Summa philosophiae naturalis* VI.13. For another statement of the Thomistic view, see Robert Orford (?), *De natura materiae* ch. 5 n. 390.

[8] See also Marilyn McCord Adams, *William Ockham* (Notre Dame, IN: University of Notre Dame Press, 1987) pp. 671–95.

SUBSTANTIAL FORM

Although the obscurity of prime matter is naturally captivating, of far greater significance to medieval philosophy is the conception of form, which serves as the chief analytic tool in nearly every area of Aristotelian thought. There are two basic kinds of form, substantial and accidental. Although the status of accidental forms was one of the most controversial issues in later medieval philosophy, the focus here will be on substantial form, leaving the dispute over accidents for elsewhere (Chapters 47–9). To concentrate on substantial form and prime matter, leaving aside accidental forms, is in fact to concentrate on the substance itself, since on the standard medieval Aristotelian understanding, a human being or a horse is just a composite of prime matter and substantial form.[9] Thus, the substance's color, size, and shape *inhere* in it, but are not strictly speaking a *part* of it. (When Locke and other critics of scholasticism call into question our grasp of substance, they have in mind this notion of the substance as the thing itself, apart from its accidents.) In terms of Aristotle's often-cited example, a white man is not a genuine substantial unity, because it is a composite of a substance (the man) and an accidental form (whiteness). In contrast, what became known as the "essential parts" of a human being (prime matter and substantial form) make a thing that is one *per se* – that is, yield the sort of unity characteristic of substances.[10]

It is not at all easy to account for the unity of a form–matter composite, however, when form and matter are understood as distinct things. Scotus, for one, thinks there simply is no such explanation, but that instead their unity is a brute fact:

> If you ask why there is one thing *per se* in one case more than in another, I reply that just as, according to *Metaphysics* VIII, there is no question of why one thing is made from actuality and potentiality, except that this is actuality *per se* and that potentiality *per se*, so too there is no cause for why one thing *per se* is made from this actuality and that potentiality, either in things or in concepts, except that this is potentiality with respect to that, and that is actuality.
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> (*Ord.* IV.11.3 n. 53 [ed. Wadding VIII: 652]).

What Aristotle had said is that "if one is matter, the other form, one in potentiality, the other in actuality, then the question [of their unity] will no longer

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[9] Admittedly, this oversimplifies the views of some authors, who would add certain further ingredients to a substantial composite, such as Averroes's indeterminate quantity, Scotus's haecceity, or even multiple substantial forms (see below).

[10] For the case of the white man, see *Metaphysics* VII. On the *per se* unity of substances, see, e.g., Aquinas, *De ente* 6 (ed. Leonine XLIII: 380.23–49); Scotus, *Lectura* II.12.1 nn. 45–51. I discuss Locke's view in a forthcoming book on the origins of seventeenth-century philosophy.

appear to be puzzling" (1045a23–5). Rather than try to explain *why* there is no longer a puzzle at this point, Scotus contends that the appeal to potentiality and actuality is the end of the story, leaving nothing more to be said. This is an unorthodox conclusion, but it captures the unsettled state of the discussion over how a hylomorphic account might explain the unity of soul and body, or of any other hylomorphic compound.

A substantial form is more than just a cluster of necessary properties, and more even than just those properties that give a thing its essential nature as a thing of some kind (*horse*, *gold*, etc.). To be sure, the substantial form is closely associated and sometimes identified with the essence of a thing.[11] But an essence is more than just a certain sort of defining property – an essence defines a thing because it plays a critical functional role within a substance, explaining the various characteristic properties of a thing, both necessary and accidental. This is not to say that the essence explains *every* property of a thing, however; some properties, like having a scar, have extrinsic causes. Thus, according to Avicenna, "among accidents, there are some that occur from without and some that occur from the substance of the thing" (*Sufficientia* I.6). Drawing on Avicenna's discussion, Aquinas remarks that "everything that holds true of something is either caused by the principles of its nature, as is a human being's capacity for laughter, or comes to it from an external principle, as light in the air comes from the sun's influence" (*De ente* 4 [ed. Leonine XLIII: 377.127–30]). This idea runs through all of medieval Aristotelianism. Water, to take a common example, was thought to have all its various characteristic features – the tendency to be cold, to freeze at a certain point, to be transparent, etc. – in virtue of its essence. And just as the features of a substance that distinguish it as a natural kind stem from the kind of substantial form it has, so a substance's intrinsic individual properties are often said to stem from the distinctive features of an individual's substantial form. (Thus, it is *my* soul that accounts for the intrinsic accidental features that are distinctive of me in contrast with other human beings.) For medieval Aristotelians, the need to postulate some such intrinsic explanatory principle was the undisputed rationale for postulating substantial forms.[12]

Once substantial forms are justified in terms of this specific causal framework, the theory becomes at once more concrete and more vulnerable. There is no temptation to embrace any sort of conventionalism about essences, inasmuch

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[11] There was a running medieval dispute over whether the essence of a thing should simply be identified with its substantial form, as Averroes had argued (*In Meta.* VII.34), or whether, as Aquinas had argued (*Summa theol.* 1a 75.4c), a thing's essence is its substantial form together with its common matter (those general features of its matter that it shares with all members of the species).

[12] For further discussion, see Robert Pasnau, "Form, Substance, and Mechanism," *Philosophical Review* 113 (2004) 31–88.

as it is clearly more than convention that explains why water has its distinctive characteristics. But in taking on the aspect of a kind of proto-scientific hypothesis, the theory loses touch with its more metaphysical roots as an abstract principle of analysis. In Aristotle, these two aspects of form – proto-scientific and metaphysical – exist side by side, so that sometimes forms are conceived of on the model of souls, where souls are thought to have certain causal powers, whereas at other times forms are conceived of as abstract, functional principles, offering explanations at a level that is quite independent of whatever causal, physical story might be told about the natural world. Both of these aspects of form are present in medieval discussions as well, but the more pronounced tendency as time went on was to think of forms as causal agents. Hence, Francis Bacon would complain that in the natural philosophy of his day "forms are given all the leading parts" (*De principiis*, p. 206).

THE PLURALITY OF FORMS

The doctrine of substantial form was never seriously challenged during the Middle Ages. There was, however, a very contentious dispute over how many substantial forms to postulate within a single substance. Avicenna's corporeal form, described above, marks him as a pluralist, and Gabirol postulates an even larger hierarchy of forms within living things (*Fons vitae* IV.3, V.34). Averroes, in contrast, seems to take the unitarian position, arguing that a substantial form can inhere only in prime matter, not in an actualized matter–form composite, and that therefore "it is impossible for a single subject to have more than one form."[13] Among Latin authors, the initial tendency was pluralistic, at least until Aquinas forcefully defended the unitarian position. Although unitarianism was condemned at Oxford in 1277 and again in 1284, Aquinas's influence endured, and the result was a persistent division on the topic.[14]

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[13] *De substantia orbis* ch. 1, quoting from the medieval Latin translation (ed. 1562, IX: 3vK). Most Hebrew manuscripts have the inverted claim that "it is impossible for one form to have more than one subject." But the context of the passage, and the commentary tradition on the passage, suggest that the intended sense is as quoted (see *De substantia orbis*, ed. Hyman, p. 50n).

[14] On the thirteenth-century debate, see Roberto Zavalloni, *Richard de Mediavilla et la controverse sur la pluralité des formes* (Louvain: Éditions de l'Institut Supérieur de Philosophie, 1951), and Dales, *Problem of the Rational Soul*. For Aquinas, see, e.g., *Summa theol.* 1a 76.3–4, *Quaest. de anima* 9, 11. On the controversy in Oxford, see Francis Kelley's introduction to Richard Knapwell, *Quaest. de unitate formae*. For the Thomistic defense, see Frederick Roensch, *Early Thomistic School* (Dubuque, IA: Priory Press, 1964). Prominent pluralists include Henry of Ghent (*Quod.* IV.13), Scotus (*Quod.* IV.11), Ockham (*Quod.* II.10–11), and Paul of Venice (*Summa philosophiae naturalis* V.5). Unitarians include Thomists such as Giles of Lessines (*De unitate formae*) and Capreolus (*Defensiones* II.15), and also Gregory of Rimini (*Sent.* II.16–17.2), John Buridan (*Quaest. Metaphys.* VII.14), Albert of Saxony (*Quaest. de gen. et cor.* I.5), and Marsilius of Inghen (*Quaest. de gen. et cor.* I.6). Francisco Suárez offers an extended defense of unitarianism in *Disputationes metaphysicae* XV.

In a sense, however, this ongoing dispute obscures the real story: although Aquinas's unitarian account was attacked for centuries, the consensus throughout was that such an account was preferable when available. When Henry of Ghent argued against the unitarian conception, for instance, he did so only for the special case of human beings, and even there he postulated only two substantial forms. Scotus likewise argued only for two forms, and only in the case of living things. Ockham was relatively extravagant in positing three substantial forms within a human being: a rational soul, a sensory/nutritive soul, and a form of the body. (Ockham was also unusual in his willingness to describe a human being as having two souls.) All three, however, agreed with Aquinas in the case of non-living things, and they also agreed that the default view should be the unitarian one, unless special considerations make it untenable. Aquinas thus succeeded in changing the terms of the debate. The kind of pluralism he attacked had posited a substantial form corresponding to each of a thing's necessary properties; the force of his arguments was such that this kind of promiscuous pluralism ceased to be a live view.

Although it is not immediately obvious that very much rests on the question of whether a human being has one substantial form or more, the debate in fact raises some fundamental metaphysical questions. The principal benefit of unitarianism is the work it does in accounting for substantial unity. Because of the substantial form's role in explaining the properties of a thing, one can say that a substance has its enduring character over time in virtue of having a single substantial form that gives rise to those characteristics. Pluralists, with their multiple substantial forms, need to have some further story about what unifies a living organism. By treating the rational soul as distinct from the form of the body, they in effect abandon the promise of hylomorphism to explain the unity of mind and body. Balanced against that cost, however, are the resources available to pluralism to explain various puzzling features of substantial change. Intuitively, it seems that in many cases where a thing goes out of existence, part of that thing remains. An animal dies, but its body remains. A statue is smashed, but the clay remains. Philosophers have sometimes been tempted to deal with these sorts of cases by holding either that there is no real substantial change (that is, nothing goes out of existence) or that in fact there were two substances overlapping for a time (the statue *and* the clay), only one of which remains. Pluralists are able to say something less strange: there is only one substance, but its identity is centered on two axes, as it were, around one or the other of which its various properties revolve. The animal is a single substance, then, and *it* goes out of existence when it dies, but nevertheless part of it endures, in virtue of its corporeal form. A unitarian must instead say that when a substance goes out of existence, it *wholly* goes out of existence. Thus when an animal dies, not only is the corpse not that same body, but nothing about that corpse

is the same. The corpse may have qualitatively the same properties, but those properties are numerically distinct. It was this implausible consequence – and the difficulty of explaining *why* a numerically distinct corpse should happen to have the same properties as the living body – that fueled the philosophical opposition to unitarianism.[15]

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[15] For Aquinas, see, e.g., *Summa contra gentiles* II.72, *Summa theol.* 1a 76.8 (see also Wippel, *Metaphysical Thought of Thomas Aquinas*, pp. 327–51). Aristotle suggests this sort of view at *Meteor.* IV 12, 389b31–390a19, *De an.* II 1, 412b20–2. Pluralists had other, theological objections to unitarianism. For objections of both kinds, see Adams, *William Ockham*, pp. 647–69; Richard Cross, *The Physics of Duns Scotus* (Oxford: Clarendon Press, 1998) pp. 47–93. Because statues are artifacts, they would not generally have been regarded as substances, and so the analysis in such a case would run rather differently than in the case of a true substance like an animal.

REALISM

ALESSANDRO D. CONTI

Realism and nominalism were the two major theoretical alternatives in the later Middle Ages concerning the reality of general objects: realists believed in the extramental existence of common natures or essences; nominalists did not. This so-called "problem of universals" was only one of the main questions at issue between realists and nominalists, however, whose disputes ranged widely over the status and mutual relationships of the basic items of the world (individual and universal substances, individual and universal accidents) as well as their connection to language. For scholastic authors, these questions arose first and foremost in the context of Aristotle's *Categories*. As a consequence, the medieval realist–nominalist dispute included also the problem of the status and number of real categories. Realists held that the division into categories is first of all a partition of things made on the basis of ontological criteria and only secondarily a classification of terms (which could be mental, written, or spoken), and therefore that the world is divided into ten fundamental kinds of things (in a broad sense of 'thing'), no one of which can be reduced to any other. In contrast, nominalists maintained that Aristotle's division into ten categories is a partition of terms on the basis of semantic criteria, and that there are only two or three real categories (Substance and Quality, and perhaps Quantity too). Even though from a purely logical point of view these opinions on categories and universals are independent of each other, historically, in the later Middle Ages, realism concerning categories was always matched by a realistic conception of universals, whereas nominalism on the question of categories was always paralleled by a nominalistic position on universals.

This chapter outlines the main medieval forms of realism, trying to indicate how the debate over universals and categories evolved. First, it sketches the chief features of the standard realist doctrine on universals and categories as it was worked out between the thirteenth and fourteenth centuries. Second, it summarizes William of Ockham's attack on this traditional view and Walter Burley's reply on behalf of realism. Finally, it considers the most important realist

theories of the later Middle Ages, which were proposed in order to avoid both Ockham's criticisms and the "exaggeration" of Burley's version of realism.

TRADITIONAL "MODERATE" REALISM

What has come to be known as "moderate realism" is a view endorsed by a long list of authors from the thirteenth and early fourteenth centuries, including Albert the Great, Thomas Aquinas, Henry of Ghent, Simon of Faversham, John Duns Scotus, Thomas of Sutton, Giles of Rome, and Walter Burley (pre-1324). We can approach this view by considering its semantic origins, which are evident as early as Robert Kilwardby's formulation of the problem of universals in his commentaries on the *Ars vetus* (1235–40). According to the semantics of the traditional moderate realist, universals are the real *significata* of general nouns (such as 'man' and 'whiteness'), and are thus extramental entities that are common to many individual items. Moderate realists investigated the metaphysical composition of such universals from a point of view that we can call "intensional." Only by associating common nouns with such entities as their proper *significata* did they think the fact could be explained that a general noun can be used predicatively to ascribe a given property (say, being a human being or being white) to many individuals at the same time. According to them, a general noun stands (supposits) for a certain set of individual items only by way of the common nature (the universal) that it directly signifies – a common nature that is present in that set of individuals as their intelligible essence. (On supposition and signification, see Chapter 11.)

This emerges quite plainly in the common reading of *Categories* 5, where Aristotle maintains that primary-substance terms signify a single item (*hoc aliquid* in Latin), whereas secondary-substance terms signify a "qualifying" (and therefore common or universal) item (*quale quid* in Latin) – even if they seem to signify a single item.[1] Medieval realists identified the secondary substance with the *quale quid* and the primary substance with the *hoc aliquid*, and therefore identified secondary substances (namely, the universals of the category of substance) with the *significata* of general nouns of that category (such as 'man') and primary substances (namely, the individuals of the category of substance)

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[1] See *Cat.* 5, 3b10–15: "All substances appear to signify something individual. In the case of primary substances it is indisputably true that they signify something individual, since what is shown [by them] is something indivisible and unitary. In the case of secondary substances, the form of naming gives the impression that we are also signifying something individual when we speak, for instance, of man or animal, but this impression is not true. On the contrary, we are signifying [a type, i.e.] something with a certain qualification."

with the *significata* of individual expressions of that category (such as 'this man'). Furthermore, they assumed that secondary substances specify which kind of substance a certain individual substance is. As a consequence, they thought of universals and individuals as linked together by a sort of relation of instantiation. Moreover, they agreed with Aristotle (*Cat.* 5, 2a35–2b6) that if primary substances did not exist, it would be impossible for anything else to exist, since everything else depends on them for its own being. Accordingly, the question of the status of universals became the question of their relation to individual substances. For these authors, universals are not self-subsistent entities, but exist only in and in virtue of individual entities, inasmuch as universals have no being outside the being of their instantiations.[2]

Medieval realists distinguished between three kinds of universals:

- *ante rem* – the ideas in God;
- *in re* – formal universals, the common natures (or essences) present in individual things;
- *post rem* – the mental signs (or concepts) by which we refer to the universals *in re*.

Formal universals were conceived of in two different ways, as first intentions and as second intentions. Conceived of as first intentions, universals are natures of a certain kind, identical with their own individuals. (For example, *man* would be the same thing as Socrates.) Conceived of as second intentions, formal universals were regarded as properly universal and distinct from their own individuals, considered *qua* individuals. So conceived, universals and individuals had to be distinct, because of their opposing constitutive principles: on the one hand, the generality, or natural tendency to be common (*communicabilitas*) that characterizes universals; on the other hand, the thisness, or impossibility of being common (*incommunicabilitas*) that characterizes individuals.[3]

These dual conceptions necessarily required a flexible approach to defining and classifying the types of identity and difference, given that universals were considered at the same time not totally identical with and not totally different from their own individuals. Indeed, initial scholastic accounts of identity and

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[2] For statements of the general semantic account described here, see Kilwardby, *In Porphyrium* 2 (Peterhouse ms. 206, f. 34vb); *In Praedicament.* 7 (Peterhouse ms. 206, f. 47ra–b); Albert the Great, *De praedicament.* 2.4, 2.8; Simon of Faversham, *Quaest. super Praedicamenta* 7; Sutton, *In Praedicament.* [*De substantia*], ed. Conti, in "Thomas Sutton's Commentary," pp. 203–4; Scotus, *Quaest. super Praedicamenta* 13 (*Opera phil.* I: 369–72, 377); Burley, *De suppositionibus*, ed. Brown, pp. 35–6; *Tractatus super Praedicamenta* [*De substantia*] (Peterhouse ms. 184, ff. 177va, 178ra–b); *Commentarius in Periherm.*, ed. Brown, p. 85.

[3] Albert the Great, *De quinque universalibus* 1.3, 1.5; Simon of Faversham, *Quaest. super Porphyrium* 4; Scotus, *Quaest. in Porphyrium* 3 (*Opera phil.* I: 19–20).

difference appealed to two kinds of distinctions: a real distinction and a distinction of reason. At the end of the thirteenth century, attempts were made to introduce a third, intermediary distinction. Henry of Ghent, for instance, spoke of an intentional distinction (*Quodlibet* X.7), whereas Scotus spoke of a formal distinction.[4] In the *Lectura* (I.2.2.1–4) and in the *Ordinatio* (I.2.2.1–4; II.3.1.6), Scotus describes this as a symmetrical relation between two entities that cannot exist separately; in the *Reportatio Parisiensis* (I.33.2–3; I.34.1), he defines it as an asymmetrical relation between a whole reality and one of its constitutive elements. Although none of these intermediary distinctions was specifically intended to offer an answer to the problem of universals, they nevertheless served as a potentially useful tool, for by means of them, moderate realists were trying to explain how it is possible to distinguish between many different real aspects internal to the same individual thing, without breaking its unity.

As far as the problem of the status and number of real categories was concerned, some moderate realist thinkers – such as Kilwardby, Henry of Ghent, Simon of Faversham, and "the first" Burley (in contrast with his later views, described below) – held a sort of reductionist position regarding the number of real categories: they judged only the items falling into the three "absolute" categories (Substance, Quantity, and Quality) to be things (*res*) in the strict sense of the term, considering the remaining ones to be merely "real aspects" (*respectus reales*) of the former, albeit still somehow distinct from them.[5] Others, such as Albert the Great, Thomas of Sutton, and Scotus, defended a real distinction between all ten categories, as things in the world, irreducible to one another.[6] With the sole and remarkable exception of Scotus, who maintained that the distinction among the ten categories is based on their different natures, all of these authors regarded categorial items as made up of two main components: an inner nature or essence, and a distinctive mode of being or of being predicated (*modus essendi*, *modus praedicandi*). The categories were understood to divide items according to these modes, rather than according to their essences.

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[4] On Henry's doctrine of intentional distinction see John F. Wippel, "The Dating of James of Viterbo's Quodlibet I and Godfrey of Fontaines' Quodlibet VIII," *Augustiniana* 24 (1974) 348–86; on Scotus's formal distinction see Peter King, "Duns Scotus on the Common Nature and Individual Difference," *Philosophical Topics* 20 (1992) 51–76, and Stephen Dumont, "Duns Scotus's Parisian Question on the Formal Distinction," *Vivarium* 43 (2005) 7–62.

[5] Kilwardby, *In Praedicament.* prooem. (Peterhouse ms. 206, f. 41ra) and ch. 5 (ff. 44vb–45ra); Henry of Ghent, *Summa quaest. ord.* 32.5 (*Opera* XXVII: 79–80); Simon of Faversham, *Quaest. super Praedicamenta* 12; Burley, *Tractatus super Praedicamenta* [*De numero praedicament.*] (Peterhouse ms. 184, ff. 175rb–76rb).

[6] Albert the Great, *De praedicamentis* 1.7; Sutton, *In Preadicament.* [*De numero praedicament.*], ed. Conti, p. 196; Scotus, *Quaest. super Praedicamenta* 1 (*Opera phil.* I: 250–1).

OCKHAM'S CRITIQUE AND BURLEY'S EXTREME REALISM

In the second and third decades of the fourteenth century, Ockham argued that the common realist account of the relationship between universals and individuals was inconsistent with their being really identical. His central argument was that if universals are something existing *in re*, really identical with their individuals, then whatever is predicated of individuals must be predicated of their universals too. Hence a unique universal entity (say, human nature) would possess contrary attributes simultaneously (short and tall, young and old), just as different individuals do. This is clearly unacceptable (*In Praedicament.* 8.1; *Summa logicae* I.15).

Such an inconsistency had been foreseen by moderate realists, who had tried to avoid it by introducing the sorts of intermediary distinctions described earlier between individuals and universals considered as second intentions. On the one hand, according to traditional realists, the real identity of universals and individuals had to be maintained in order to safeguard the division of predication into essential and accidental, as well as to maintain the difference between substantial and accidental forms. Like accidental forms, universal substantial forms are somehow present in individual substances and cannot exist without them; so if they, unlike accidental forms, had not been identical with individual substances, as constitutive parts of their being, then they would have been indistinguishable from accidents. Consequently, moderate realists had been forced to speak of identity between universals and individuals. On the other hand, it was evident that not all that was predicated of individuals could be predicated of universals, and vice versa. For instance, it was a common topic in commentaries on *Categories* 3, 1b10–15 that one cannot infer from 'Socrates is a man' and 'man is a species' that 'Socrates is a species,' notwithstanding the identity between *homo* and Socrates.[7] For this reason, it was necessary to limit in some way the transitivity of predication between universals and individuals. The intermediary distinctions considered earlier were the vehicle for satisfying both of these demands.

According to Ockham, there is no room for any further distinction beyond the real one, since any other possible kind of distinction necessarily implies identity (or else it would count as a real distinction), and identity is a transitive, symmetrical, and reflexive relation (*Ordinatio* I.2.6; I.33.1). Hence, the transitivity of predication cannot be limited by this strategy. Moreover, Ockham

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7 Kilwardby, *In Praedicament.* 4 (Peterhouse ms. 206, f. 44va); Albert the Great, *De praedicamentis* 1.6; Sutton, *In Praedicament.* prolog., ed. Conti, p. 187; Simon of Faversham, *Quaest. super Praedicamenta* 3; Scotus, *Quaest. super Praedicamenta* 9; Burley, *Tractatus super Praedicamenta* [*De regulis praedicationis*] (Peterhouse ms. 184, f. 174va).

accepts the indiscernibility of identicals. As a consequence, he concludes that it is impossible for contradictory properties to be truly asserted of the same thing. Instead, the bearers of those contradictory properties have to be really distinct and independent things (*Ordinatio* I.2.1; I.2.6; I.2.11; *Summa logicae* I.16).[8] Later medieval realists acknowledged that Ockham's critique showed that the traditional realist description of the relation between universals and individuals is untenable, but they were convinced that realism as a whole is still defensible. Two fundamental strategies emerged for formulating a revised form of realism: either to affirm a real distinction between universals and individuals, or to elaborate new notions of identity and difference. The first strategy was that of Burley. At the beginning of his academic career, he was a supporter of moderate realism, but beginning in 1324, in response to Ockham, he developed an original form of Platonic realism. On this view, universals, conceived of as general forms, fully exist outside the mind and are *really distinct* from the individuals in which they are present. In many of his last works he expounds on his new ontology, which is based on a threefold *real* distinction: between universals and individuals; between categorial items (*incomplexa*) and real propositions or states of affairs (*propositiones in re*); and between each of the ten categories.[9]

Like Ockham, Burley rejects any kind of distinction in addition to the real one. He considers identity a transitive, symmetrical, and reflexive relation, and identity and difference two mutually incompatible relations.[10] On the other hand, he claims that universals *in re* fully exist outside the mind and are really distinct from the individuals they are in and are predicated of. Two startling conclusions follow from this. First, a universal has its own being, distinct from the being of the individual that instantiates it. Second, a universal is not a part of that individual. Instead, individual substances are composed of nothing but singular form and matter. The base-level species (*human being*, for instance, or *horse*) is not a constitutive part of the individuals it is in and is predicated of, but is only a form coming together with those individual essences and making their metaphysical structure known: it is the species (namely, the type) that individuals belong to (or instantiate). Once universals are no longer constitutive

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[8] On real sameness and distinction in Ockham, see Marilyn McCord Adams, "Ockham on Identity and Distinction," *Franciscan Studies* 36 (1976) 5–74.

[9] On Burley's new ontology see Alessandro Conti, "Ontology in Walter Burley's Last Commentary on the *Ars Vetus*," *Franciscan Studies* 50 (1990) 121–76; on the development of his semantic theory see Alessandro Conti, "Significato e verità in Walter Burley," *Documenti e studi sulla tradizione filosofica medievale* 11 (2000) 317–50, and Laurent Cesalli, "Le réalisme propositionnel de Walter Burley," *Archives d'histoire doctrinale et littéraire du moyen âge* 68 (2001) 155–221.

[10] Burley, *Expositio super Praedicamenta* [*De oppositione*], ed. 1509, f. 44rb; *Tractatus de universalibus*, ed. Wöhler, p. 22.

parts of their own individuals, the inconsistencies stressed by Ockham vanish.[11]

The other two main theses of Burley's ontology also depend on what he takes to be necessary in order to defend a realist view of universals. Because he gives up intentional and formal distinctions, and so can no longer reduce the being of universal substantial forms and that of accidental forms to the being of individual substances, Burley is compelled to make the ontological status of *propositiones in re* stronger than it was before. Whereas in his youth he had clearly stated that mental propositions exist in our minds as in their own subjects of inherence, and that real propositions exist in our minds as their intentional objects, in his last commentary on the *Ars vetus* (1337) he affirms that a real proposition (which is the *significatum* of a mental proposition) is a "molecular being" (*ens copulatum*) formed by the entities for which the subject and the predicate of the corresponding mental proposition stand, together with an identity-relation (if the proposition is affirmative) or a non-identity-relation (if the proposition is negative).[12] Moreover, with respect to the problem of the ontological value of the Aristotelian categories, he claims that the division into categories is first and foremost a division of things (*res*) existing outside the mind – using *res* in its strictest sense for an irreducible, fully existing entity. Accordingly, the things in one category are really distinct from those in others. Burley rejects any sort of reductionism, arguing that this compromises the actual goal of a correct categorial theory – namely, the classifying and putting in hierarchical order of all the world items according to their nature, metaphysical structure, and distinctive modes of being.[13]

Despite these new views (namely, that there is a real distinction between universals and individuals, and that the ten categories are all irreducibly real), Burley keeps on supporting without qualification the Aristotelian principle that primary substances are the necessary condition of existence for all other categorial items, including universals (*Cat.* 2b5–6).[14] This is still possible because he holds that universals are forms, and therefore existentially incomplete and

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[11] Burley, *Expositio in Phys.* prooem., ed. 1501, ff. 8rb–9vb; *Expositio super Praedicamenta* [*De subiecto et praedicato*], ed. 1509, f. 20rb and [*De substantia*], ff. 23rb–vb, 24va; *Expositio super Periherm.* [*De oppositione enuntiationum*], ed. 1509, f. 74rb–va; *Tractatus de universalibus*, ed. Wöhler, pp. 14–40.

[12] Burley, *Expositio super Praedicamenta*, prooem., ed. 1509, ff. 17vb–18va; [*De subiecto et praedicato*], ed. 1509, f. 20rb; [*De priori*], ed. 1509, f. 47va; *Expositio super Periherm.*, prooem., ed. 1509, f. 66ra-b. For his earlier view of propositions, see *Quaest. in Periherm.* 3 and *Commentarius in Periherm.*, ed. Brown, pp. 61–2.

[13] Burley, *Expositio super Praedicamenta* [*De numero praedicament.*], ed. 1509, ff. 21ra–b, 21va–b, 22ra. For Burley's earlier views, see the reference in note 5.

[14] Burley, *Expositio super Praedicamenta* [*De substantia*], ed. 1509, f. 24va.

dependent entities whose existence requires the existence of at least one individual substance. Since he is faithful to Aristotle rather than to Plato on this point, Burley has to build up a sort of mixed theory, where principles of Aristotelian ontology go alongside principles of Platonic ontology. Two difficulties arise from his new system, however. First, it becomes difficult to distinguish essential from accidental predication, since universal substances necessarily presuppose individual substances for their existence, in the same way that accidental forms do. Second, the conclusion that universals have their own being distinct from the being of individuals seems dangerously close to Plato's theory of Forms. As a consequence, many late medieval realists would try other ways of replying to Ockham's charges.

LATE MEDIEVAL REALISM

Because Burley was persuaded that Ockham's arguments were valid, he sought to escape from the resulting inconsistencies by moving toward Platonism. In particular, he renounced his support for the thesis that universal forms have no being apart from the being of individuals. Most later medieval realists, in contrast, retained that anti-Platonic thesis. To escape the contradictions Ockham had described, they instead revised the notions of identity and difference to make room for the distinctive relation of partial identity and difference that they claimed holds between universals and individuals. There were two main lines of strategy. The first was that of some Italian Dominican masters, such as Francis of Prato and Stephen of Rieti in the 1340s, who worked out new definitions for identity and distinction that were inspired by Hervaeus Natalis's notion of conformity. The second approach was that of the most important school of later medieval realists: the so-called "Oxford Realists," started by John Wyclif. Besides Wyclif himself, this school includes the Englishmen Robert Alyngton, William Milverley, William Penbygull, Roger Whelpdale, and John Tarteys, as well as the German John Sharpe and the Italian Paul of Venice. According to the Oxford Realists, universals and individuals are *really* identical but *formally* distinct. In addition, they claimed that the two notions of formal difference and real identity are logically compatible, that predication is a *real* relation between things, and that the ten Aristotelian categories are ten really distinct kinds of things (*res* in the strict sense).[15]

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[15] On this last point see Wyclif, *De ente praedicamentali* 4; Alyngton, *Super Praedicamenta* [*De numero praedic.*], ed. Conti, pp. 252–3; Paul of Venice, *Super Praedicamenta* [*De numero praedic.*], ed. 1494, ff. 50rb–51ra.

Francis of Prato and Stephen of Rieti both attempt to defend realism by rethinking the relation between universals and individuals.[16] Their goal is to avoid the inconsistencies pointed out by Ockham without going as far as Burley's real distinction between individuals and universals. Toward this end, they develop some of Aquinas's and Hervaeus Natalis's chief intuitions.[17] Like them, Francis and Stephen reject any kind of distinction midway between a real distinction and one of reason. Their basic ideas are that universal forms have no being outside the being of their individuals[18] and that real identity may be more or less close. This is to say that the limit of real identity is entirely real identity, but that two things can be not entirely really identical without being really non-identical and, hence, without being really different.[19] Although the idea that identity comes in degrees is a distinctive one, Francis and Stephen clearly fall into the moderate realist tradition with respect to the problem of universals.[20] The same is true for their defense of the reality and real distinctness of each category. In his *Logica* (I.5.1), Francis observes that all ten Aristotelian categories contain things, but in two different senses of the term, for *res* can signify either a real essence or the mode of being of a real essence. The three absolute categories are things in the former sense of the term, whereas the other seven categories are said to be things in the latter sense.

The most influential of the later scholastic realists was Wyclif.[21] Like the moderate realists, he recognizes three main kinds of universals – ideal universals, formal universals, and intentional universal – and he holds that formal universals

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[16] On Francis's and Stephen's lives, works, and theories see Fabrizio Amerini, *I trattati* De universalibus *di Francesco da Prato e Stefano da Rieti (secolo XIV)* (Spoleto: Centro italiano di studi sull'alto medioevo, 2003) 1–56, Christian Rode, *Franciscus de Prato* (Stuttgart: Steiner, 2004), and Fabrizio Amerini, *La logica di Francesco da Prato: con l'edizione critica della* Loyca e del *Tractatus de voce univoca* (Florence: SISMEL, 2005) 1–248, and "What is Real? A Reply to Ockham's Ontological Program," *Vivarium* 43 (2005) 187–212.

[17] Thomas Aquinas, *In Metaphys.* VII.11, VII.13; Hervaeus Natalis, *Quodlibet* I.2 (ed. 1513, f. 7rb–va), I.9 (ff. 19ra–vb, 20rb), II.7 (f. 47rb).

[18] Francis of Prato, *De universalibus* 5, ed. Amerini, p. 110; Stephen of Rieti, *De universalibus*, ed. Amerini, pp. 142–3.

[19] Francis of Prato, *De universalibus* 4, ed. Amerini, pp. 99–100.

[20] Stephen of Rieti, *Super Porphyrium* 1, ed. Amerini, pp. 159–61.

[21] On Wyclif's form of realism see Anthony Kenny, *Wyclif* (Oxford: Clarendon Press, 1985) 1–30; Paul Vincent Spade, "Introduction," in John Wyclif, *On Universals*, tr. A. Kenny (Oxford: Clarendon Press, 1985) vii–xlvii; A. Kenny, "The Realism of *De Universalibus*," in A. Kenny (ed.) *Wyclif in his Times* (Oxford: Clarendon Press, 1986) 17–29; Alessandro Conti, "Analogy and Formal Distinction: On the Logical Basis of Wyclif's Metaphysics," *Medieval Philosophy and Theology* 6 (1997) 133–65; Laurent Cesalli, "Le 'pan-propositionnalisme' de Jean Wyclif," *Vivarium* 43 (2005) 124–55; Paul Vincent Spade, "Insolubles," in E. Zalta (ed.) *The Stanford Encyclopedia of Philosophy*: http://plato.stanford.edu; and Conti, "Wyclif's Logic and Metaphysics," in I. C. Levy (ed.) *A Companion to John Wyclif* (Leiden: Brill, 2006) 67–125.

are really identical with their individuals. In his view, universals and individuals share the same reality – that of the individuals – but have opposite constituent principles. On his terminology, they are really (*realiter*) the same but formally (*formaliter*) distinct. In this way, Wyclif both accepts the very core of the traditional realist account of the relationship between universals and individuals and tries to improve on it by defining its predicative structure more accurately. Because of the formal distinction, not everything predicable of individuals can be directly attributed to universals and vice versa, although an indirect predication is always possible. As a consequence, Wyclif distinguishes three non-mutually exclusive types of predication, each more general than the preceding one. In the *Tractatus de universalibus* (1, ed. Mueller, pp. 28–30, 34–6) they are described as formal predication, predication by essence (*secundum essentiam*), and habitudinal predication (*secundum habitudinem*). Habitudinal predication does not require any kind of identity between the item(s) signified by the subject term and the item(s) signified by the predicate term, but formal predication and essential predication do. Thus, the ontological presuppositions of the most general type of predication are different from those of the other two. Wyclif aims to unify the various kinds of predication by means of a unique basic relation of partial identity, the formal distinction, which he characterizes as that by which things differ from each other even though they are constitutive elements of the same single essence or supposit (ibid. 4, pp. 90–1). The formal distinction is the main kind of transcendental relation holding among the items in Wyclif's world (a transcendental relation being one that does not fall into the category of Relation and that can connect items belonging to different categories or not belonging to any category). It is intended to explain both why one and the same individual substance (say, Socrates) is *one thing*, even if it contains in itself a lot of simpler entities, and how many different entities can constitute just one thing. Moreover, the formal distinction accounts for the relations between a concrete accident and its substance – for instance, between being white (*album*) and the substance in which the corresponding abstract form, whiteness, inheres. Consequently, the formal distinction also plays a central role in discussions of the categories.

Wyclif is a realist with respect to the categories: he holds that the extramental world is divided into ten genera of beings, none of which can be reduced to another. Thus, like Burley, he insists that the items falling into the accidental categories, considered by themselves, in an absolute manner, are forms inherent in composite substances. In this way, Wyclif attempts to safeguard the reality of accidents as well as their distinctness both from substance and from one another. At the same time, he affirms that accidents depend on substances for their existence, since he subscribes to the Aristotelian thesis that primary

substances are a necessary condition for the existence of all other categorial items.[22] Indeed, Wyclif can insist on this doctrine in a very strong form, since accidents considered from the point of view of their existence as concrete beings are only *formally*, but not *really* distinct from the substance in which they are present and that they affect. Opposed to the separability of accidents from their substance (a view that became notorious because it clashed with the doctrine of transubstantiation), Wyclif describes accidents as mere modes of that substance.[23]

Wyclif's philosophy exercised an enormous influence on the forms of later medieval realism. In particular, his intuitions concerning universals, predication, and categories played a large role in the logic and metaphysics of many authors, especially of the Oxford Realists.[24] According to these authors, formal universals are common natures in virtue of which the individuals that share them are what they are. Humanity, for instance, is the form by which every human being is formally a human being. Like Wyclif, the Oxford Realists agree that common natures exist *in actu* in the external world and that they are really identical to, but formally distinct from, their own individuals.[25] Different authors, however, analyze predication and identity in different ways. Alyngton – and, some years later, Sharpe, Milverley, and Tarteys – divide predication into formal predication and predication by essence, which Alyngton also calls "remote inherence" (*inhaerentia remota*). Predication by essence requires only a partial identity between the real subject and predicate. These need to share some, but not all, metaphysical component parts. Formal predication, in contrast, requires the direct presence in the entity denoted by the subject term of the

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[22] Wyclif, *De ente praedicamentali*, 4 (ed. Beer, pp. 30–2), 5 (pp. 42–3), 6 (pp. 48–50), 7 (pp. 61–2).

[23] Wyclif, *De actibus animae* 2.4 (ed. Dziewicki, *Miscellanea philosophica* pp. 122–3, 127). For Wyclif's treatment of accidents as it pertains to the Eucharist, see Kenny, *Wyclif*, 68–90; see also Paul Bakker, "Réalisme et rémanence: la doctrine eucharistique de Jean Wyclif," in M.-T. Fumagalli Beonio Brocchieri and S. Simonetta (eds.) *Wyclif: logica, teologia, politica* (Florence: SISMEL, 2003) 87–112.

[24] For analyses of their main works and doctrines and information on Wyclif's influence see Alessandro Conti, "Teoria degli universali e teoria della predicazione nel trattato *De universalibus* di William Penbygull: discussione e difesa della posizione di Wyclif," *Medioevo* 8 (1982) 137–66; Alessandro Conti, "Studio storico-critico," in John Sharpe, *Quaestio super universalia* (Florence: Olschki, 1990) pp. 211–38, 295–336; Alain de Libera, "Questions de réalisme: sur deux arguments antiockhamistes de John Sharpe," *Revue de métaphysique et de morale* 97 (1992) 83–110; Alessandro Conti, "Linguaggio e realtà nel commento alle *Categorie* di Robert Alyngton," *Documenti e studi sulla tradizione filosofica medievale* 4 (1993) 179–242; Alain de Libera, *La querelle des universaux de Platon à la fin du Moyen Age* (Paris: Seuil, 1996) pp. 402–28; Alessandro Conti, "Johannes Sharpe's Ontology and Semantics: Oxford Realism Revisited," *Vivarium* 43 (2005) 156–86; Conti, "Wyclif's Logic and Metaphysics," 118–25.

[25] Alyngton, *Super Praedicamenta* [*De substantia*], ed. Conti, p. 268; Penbygull, *De universalibus*, ed. Conti, pp. 181, 189; Milverley, *Compendium de quinque universalibus*, ed. Conti, p. 163; Tarteys, *Problema correspondens libello Porphyrii*, ed. Conti, pp. 178–9; Whelpdale, *Tractatus de universalibus*, ed. Conti, pp. 193–4; Sharpe, *Quaestio super universalia*, ed. Conti, pp. 91–2; Paul of Venice, *Quaestio de universalibus*, ed. Conti, p. 199; *Super Porphyrium* [*De genere*], ed. 1494, f. 14vb.

form connoted by the predicate term. Instances of predication by essence (or remote inherence) are '(What is) singular is (what is) common' (*Singulare est commune*) and 'Humanity is (something) running' (*humanitas est currens*).[26] 'Man is an animal' and 'Socrates is white' are instances of formal predication.

Unlike the others, Penbygull and Whelpdale add a third, causal kind of predication. According to them, there is causal predication when the item signified by the predicate term is not present in any way in the item signified by the subject term, but the subject has been caused by the predicate (for example: *A day is the effect of the sun around the earth*).[27] These authors differ in other ways as well. Penbygull and Milverley, for instance, distinguish between non-identity and difference, deny that difference implies non-identity, and affirm that the two notions of difference and real identity are logically compatible, thus admitting that there are degrees of distinctness.[28] Sharpe, in his turn, treats identity and difference as the two possible inverse measures of the coincidence of the metaphysical components of two given entities. On his view, although formal identity is stronger than real identity (since the former entails the latter), a real distinction is stronger than a formal distinction (since the latter is entailed by the former). Sharpe also recognized degrees within the formal distinction (*Quaest. super universalia*, ed. Conti, pp. 91–2).

Among the Oxford Realists, the most original was Paul of Venice, who studied in Oxford in 1390–3 before returning to Padua, where he spread Oxford Realism to a wider audience.[29] He fully developed the new form of realism started up by Wyclif, but was open also to influences from other directions, giving serious attention to moderate realism and critically discussing the doctrines of the main fourteenth-century nominalists. Paul's world consists of finite beings (such as human beings and horses), which are aggregates of an individual substance and a host of formal items (substantial and accidental forms, both universal and singular) existing in and through that individual substance. The components of finite beings are nothing but the categorial items themselves, together with their own modes of being. All these items are real, in the sense that they are mind-independent beings, none of which can be reduced to another; still, only individual substances *exist*, inasmuch as only they are actual beings

[26] Alyngton, *Super Praedicamenta* [*De substantia*], ed. Conti, p. 289; Milverley, *Compendium*, p. 160; Tarteys, *Problema*, Lambeth Palace ms. 393, ff. 204(235)r–v, 209(240)r–v; Sharpe, *Quaestio super universalia*, ed. Conti, pp. 89–91.

[27] Penbygull, *De universalibus*, ed. Conti, pp. 186–8; Whelpdale, *Tractatus de universalibus*, ed. Conti, pp. 190–2.

[28] Penbygull, *De universalibus*, ed. Conti, pp. 190–1; Milverley, *Compendium*, ed. Conti, p. 163.

[29] On Paul of Venice's form of realism see Alessandro Conti, *Esistenza e verità: forme e strutture del reale in Paolo Veneto e nel pensiero filosofico del tardo medioevo* (Rome: Edizioni dell'Istituto Storico Italiano per il Medio Evo, 1996).

(*entia in actu*). Individuation thus involves the passage not just from universal to individual, but also from being (*esse*), which is the universal condition of reality for every kind of entity,[30] to existence (*existentia*), which is the mode of being peculiar to individual substances only. Common natures, which correspond to the ideas in the mind of God, are the main type of beings within Paul's world; individuals exist only as material substrates (*partes subiectivae*) of the natures themselves, since the principle of individuation (the *haecceitas*, *ratio individualis*, or *suppositalis*) within the individual compound plays the role of the matter that is to be determined, while the common nature plays the role of the determining form.[31]

Like the other Oxford Realists, Paul claims that universals and individuals are really the same and only formally distinct. Yet, since common natures have a kind of being of their own, if all the individuals belonging to some natural species were annihilated, their corresponding nature would continue to have being, even though only potentially, as a mere metaphysical possibility (*Super Porphyrium* prooem. [ed. 1494, f. 8va]). In commenting on Aristotle's seemingly contrary claim at *Categories* 2b5–6, Paul restates that same thesis, adding that a certain common nature would be annihilated if and only if all the individuals belonging to the corresponding natural species were destroyed not only in relation to their actual existence, but also in relation to their potential being.[32] Since the potential being of individuals is nothing but the essential being proper to universals,[33] the destruction of the individuals in relation to their potential being just *is* the destruction of universals themselves.

CONCLUSION

If we consider the moderate realist view of universals, it is easy to see that it is determined by a general evaluation of the *Categories*, together with the main principles and theses stated by Aristotle in that book. When moderate realists interpret the relation between universals and individuals in terms of identity, they are trying to save the ontological primacy of individual substances, while at the same time reading in a realist way the nature and division of predication, and the twofold partition (into substantial and accidental, individual and universal items) described in the second chapter of the treatise. On the one hand, they assume

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[30] Paul of Venice, *In Metaph.* IV.1.1 (Pavia ms. 324, f. 125vb); *Super Porphryrium* [*De specie*], ed. 1494, f. 22rb.

[31] On Paul's theory of individuation see Alessandro Conti, "Paul of Venice on Individuation," *Recherches de théologie et philosophie médiévales* 65 (1998) 107–32.

[32] *Super Praedicamenta* [*De substantia*], ed. 1494, f. 57va–b.

[33] *Summa philosophiae naturalis* VI.1 (ed. 1503, ff. 92vb–93ra), VI.5 (ff. 95vb–96ra).

that being a universal is equivalent to being said of something as a subject; on the other hand, they consider the being-said-of relation as a real relation between two different kinds of beings. As a result, they are compelled to postulate a form of identity between universals and individuals: universals are (metaphysical) parts of their individuals. Otherwise, it would be impossible to distinguish the being-said-of relation (essential predication) from the relation of being in something as a subject (accidental predication, or inherence). Both universal substances and accidents are somehow present in individual substances and neither can exist apart from individual substances, but universals are parts of individuals and accidents are not (*Cat.* 2, 1a24–5). Still, universals and individuals cannot be entirely identical, since there is not a complete transitivity in predication between them.

Realists of the fourteenth century elaborate new notions of identity and distinction, judging that the logical machinery they have at their disposal is insufficient for their purposes. Because of Ockham's critique of moderate realism and the formal distinction, almost all the realists of the later Middle Ages become dissatisfied with Henry's and Scotus's formulations of distinctions midway between the real distinction and the distinction of reason. They therefore try to improve the realist theory of universals by modifying both the standard Aristotelian analysis of predication and the notion of formal distinction. Indeed, the only other possible way of overcoming Ockham's arguments against realism is to assume, as Burley does, that universals and individuals are really distinct – a choice that entails a change from an Aristotelian to a Platonic metaphysics and that leads to a paradoxical result: the partial dissolution of the Aristotelian doctrine of categories. Within the new metaphysical system of the Oxford Realists, universals and individuals, as well as essential and accidental predication, are far removed from their Aristotelian patterns. According to the moderate realists of the second half of the thirteenth century, the actual existence of at least one individual is necessary in order to guarantee the existence *in potentia* of the corresponding universal. In Paul of Venice's view, in contrast – which is the final culmination of the realist tradition initiated by Wyclif – the being of a universal essence is a necessary condition for the existence of individuals, but not vice versa. Thus the metaphysics proper to the Oxford Realists is substantially a Platonic metaphysics, where universal essences, and not individual substances, are the main kind of being.[34]

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[34] A comprehensive survey of the connected problems of universals and of categories in the late Middle Ages is provided in Alessandro Conti, "Categories and Universals in the Later Middle Ages," in L. Newton (ed.) *Medieval Commentaries on Aristotle's* Categories (Leiden: Brill, 2008) 369–409.

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NOMINALISM IN THE LATER MIDDLE AGES*

JOËL BIARD

There is no dispute that nominalism is a major movement in logic and philosophy during the later Middle Ages. Not only are some major thinkers connected with it, such as William of Ockham and John Buridan, but it is the place where some decisive innovations fully unfold, such as the theory of mental language and of the universal as sign. Even so, the term 'nominalism' seems uncertain and equivocal, for several reasons.

First, it is commonly admitted that there are two great periods of medieval nominalism: the twelfth century and the fourteenth century. The historical and theoretical links between the two are, however, far from clear. The questions that constitute the conceptual core of the confrontations between schools in the dialectic of the twelfth century – such as the question of the unity of names, the nature of inference, and the reality of relations within the Trinity – are not found in the same terms two centuries later; as for universals, although Abaelard criticizes the theory of real universals, he posits a *status* which, without being a thing, must account for the imposition of universal names, and for which no equivalent is found in the fourteenth century. The rapprochement of the two periods, the exaggerated place accorded to the problem of universals, and the major role attributed to Abaelard are due to a historiography that began in France in the nineteenth century with Victor Cousin, but that current knowledge renders more and more problematic.

Second, the nominalism of the later Middle Ages embraces authors whose doctrines present important differences. Although Ockham and Buridan offer similar analyses of language, the status they attribute to concepts is different. Their theories of the reference of terms also diverge in various ways. This does not preclude a rapprochement, but it leads one to wonder whether the label 'nominalism' is not sometimes too imprecise to characterize these doctrines. This is even more the case if one considers the diverse views of

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* Translated from the French by Amandine Catala.

fourteenth-century authors like Gregory of Rimini and Peter of Ailly, or the fifteenth-century Jerome Pardo.

Finally, it must be recalled that no author of the fourteenth century claims to be a nominalist, even though in the twelfth century there was indeed a sect of Nominales. The designation is therefore retrospective. Although from the beginning of the fifteenth century there begins to be talk of "terminists" to designate those logicians who study the properties of terms, this does not exclusively designate nominalists, and the term 'nominalist' itself comes even later. It seems that clans confronting each other in Paris in the fifteenth century begin to identify themselves as belonging to "schools," even if their conflicts arose out of institutional as much as doctrinal reasons. The famous letter sent by the nominalists to Louis XI serves as a landmark. It is this text that defines how 'nominalist' was understood at the time, and that accounts for the picture we still have today of later medieval nominalism.[1] Let us consider the core of this letter.

In 1474, Louis XI issued a decree against the Nominales. The latter responded with a manifesto that makes clear how they saw the cleavage:

We call *nominales* those doctors who do not multiply things that are chiefly signified by terms according to the multiplication of terms. We call *reales*, by contrast, those who hold that things are multiplied with the multiplicity of terms . . . Further, we call *nominales* those who pay attention and study to know all the properties of terms, upon which depend the truth and falsity of propositions and without which one cannot make any definitive judgment about the truth and falsity of propositions.

What can we conclude from this? First, the importance granted to the analysis of language. Second, the use of a tool for that analysis, namely the theory of the properties of terms, which in itself is not nominalist (since it was framed in the thirteenth century by realist masters), but which afterward was the object of notable improvements by Ockham and Buridan (see Chapters 11 and 12). That which, by contrast, is not evoked at all is the ontology of the singular. This can, no doubt, be read into the first remarks – namely, the demand not to multiply things according to the categories of terms, although this also has a narrower sense in the context of disputes over the reality of Aristotle's ten

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[1] On the doctrinal and institutional history of these cleavages, see Zénon Kaluza, "Les sciences et leurs langages. Note sur le statut du 29 décembre 1340 et le prétendu statut perdu contre Ockham," in L. Bianchi (ed) *Filosfia e teologia nel trecento: studi in ricordo di Eugenio Randi* (Louvain-la-Neuve: Fédération internationale des instituts d'études médiévales, 1994) 197–258. For Victor Cousin, see *Ouvrages inédits d'Abélard pouvant servir à l'histoire de la philosophie scolastique en France* (Paris: Imprimerie Royale, 1836). The text of the exchange between Louis XI and the nominalists is edited in Franz Ehrle, *Die Sentenzenkommentar Peters von Candia, des Pisaner Papstes Alexanders V* (Münster: Aschendorff, 1925) pp. 322–6.

categories, as we will see below. Also missing are several theses at the crossroads between theology and logic, such as the radical contingency of the created world and the methodological use of God's "absolute power" to emphasize the ontological structure of the created world. As for the forefathers they give themselves, nominalists of the time cite Ockham, followed by a more or less heterogeneous list of authors, such as John of Mirecourt, Gregory of Rimini, Buridan, Peter of Ailly, Marsilius of Inghen, and Albert of Saxony. But in fact their true inspiration, as we will see, is John Buridan, and this will remain true up to the time of John Major, who teaches in Paris in the first decades of the sixteenth century.

NOMINALISM AND LANGUAGE

Although all of the Middle Ages paid special attention to language, the nominalist attitude goes further. The critique of language is treated as the necessary precondition for any philosophical or scientific analysis (including theology, considered as a science). It is this critique of language and its illusions that allows for a solution to the problem of universals and the status of abstract terms by rejecting various linguistic illusions. This critique also allows for the development of a metaphysics whose ontology remains parsimonious, and for the analysis of the language of physics and theology. The paramount question for understanding the nature of later medieval nominalism is, thus, the status of language and the signs that compose it.[2]

SIGNS AND THEIR PROPERTIES

Ockham begins his *Summa logicae* with a discussion of the nature of a sign and its divisions. A term, which is the elementary component of language, is a sign. William takes, with modifications, the Augustinian definition of a sign;[3] for him, it is "anything that, when apprehended, makes something else be known" (*Summa logicae* I.1). Signs can be of three kinds: written, spoken, or mental. A sign corresponds to something other than itself (except in cases where it reflects itself as sign), but the logical sign, unlike other signs (a fire, a storefront sign), is part of a set that is composed according to certain rules, and it has properties that are connected to this regulated use. Finally, any sign corresponds directly to the thing it signifies (its significate), and for which it substitutes. This means that the signification of a spoken sign is defined in relation to

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[2] See Joël Biard, *Logique et théorie du signe au XIVe siècle* (Paris: Vrin, 1989).
[3] Augustine, *De doctrina christiana* II.1.1.

the signified thing itself rather than to the associated concept to which it is subordinated, even though this concept is itself also a sign. Thus, among signs, some are conventional (namely, written and spoken signs), whereas others are natural (namely, concepts). The naturalness of conceptual signification can be understood either through a natural relation of resemblance or through a relation of causality between the signified thing and the concept that arises – it is this second relation that Ockham privileges in his definition of the conceptual sign (*Summa logicae* I.12).

Inasmuch as they are destined to be part of propositions, linguistic signs have, in addition to their signification (that is, their relation of possible substitution with regard to real things), other semantical properties they exert in virtue of their propositional use. These are the "properties of terms," such as supposition (the reference of a term in a certain propositional context) and its variations (ampliation, restriction), as well as appellation or connotation (namely, the signifier's correspondence to something other than that for which the term supposits, as the term 'white' refers to an individual and connotes a quality: such or such whiteness) (see Chapter 11).[4]

Language is not, however, composed only of such categorematic terms. It also includes terms that do not have a proper signification determined by themselves, the so-called syncategorematic terms (see Chapter 11). Logic devotes considerable space to the study of these terms, both with respect to their mode of signification (beginning with Peter of Ailly, it is said that they signify not some thing or things [*aliquid, aliqua*], but somehow [*aliqualiter*]), and with respect to the effects they produce in the proposition.

John Buridan subsequently articulates a somewhat different connection between spoken terms and mental terms.[5] For him, the spoken term has both an immediate signification, which is the concept, and an ultimate signification, which is the thing. The concept is the reason according to which a spoken term signifies, which leads to an original theory of the "appellation of reason" – that is, of the term's evoking, in certain contexts (for example, in the context of aspectual verbs such as 'to know' or 'to promise'), the concept according to which it corresponds to such or such thing.[6]

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[4] See Marilyn Mc Cord Adams, *William Ockham* (Notre Dame, IN: University of Notre Dame Press, 1987); Cyrille Michon, *Nominalisme: la théorie de la signification de Guillaume d'Ockham* (Paris: Vrin, 1994).

[5] *Summulae* IV (*De suppositionibus*) 1.2, and esp. *Summulae* IX (*De practica sophismatum*) 1. See also Biard, *Logique,* pp. 162–202; Jack Zupko, *John Buridan: Portrait of a Fourteenth-Century Arts Master* (Notre Dame: University of Notre Dame Press, 2003) pp. 150–63.

[6] *De suppositionibus* 5.3.

On these semiological and semantic questions, the Ockhamist position is taken again by Albert of Saxony, then by Peter of Ailly. We still find its echoes in Blasius of Parma in his *Quaestiones* on Peter of Spain at the end of the fourteenth century and the beginning of the fifteenth. Marsilius of Inghen's treatises on the properties of terms, however, follows Buridan, even while modifying certain details.

MENTAL LANGUAGE

It is on the basis of this semantic theory that Ockham can develop in an unprecedented way the theory of mental language.[7] He refers both to Boethius's three kinds of propositions and to Augustine's doctrine of the inner word, but in fact his theory has no antecedent. The mental domain can be considered as a collection of conceptual elements that themselves carry semantic properties, combined according to certain syntactic rules. So, while Ockham takes and improves on the already well-established theory of the referential properties of terms, he treats concepts as what first carry these properties.

Mental language includes diverse elements that assume different functions, and that have properties mirroring those of spoken language. It includes names (nouns and adjectives), verbs, pronouns, adverbs, conjunctions, and prepositions, with accidents for names such as case, number, and comparison.

Many debates have arisen, as much among scholars today as among medieval authors, about the structure of mental language, including whether there are connotative terms or synonyms among mental terms, and whether the act corresponding to a "mental proposition" is simple or composite. With respect to this last issue, Gregory of Rimini holds that since the mind is not extended, a proposition in mental language cannot strictly have any parts. This is so, at least, in what is properly referred to as mental language, which is prior to spoken language and which must be distinguished from mental language loosely speaking, which is a mere mental image of vocal language. This question would be debated into the sixteenth century.[8] The Buridanian tradition also emphasizes the linguistic structure of the mental proposition. As for Peter of Ailly, his treatise on *Concepts* radicalizes the subordination of spoken language to mental language, claiming that the structure of mental language is the first and proper syntactic

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[7] Claude Panaccio, *Le discours intérieur de Platon à Guillaume d'Ockham* (Paris: Seuil, 1999).

[8] E. J. Ashworth, *Language and Logic* (Boston: Reidel, 1974); "Theories of Propositions: Some Early Sixteenth Century Discussions," *Franciscan Studies* 38 (1978) 81–121; "Mental Language and the Unity of Propositions: A Semantic Problem Discussed by Early Sixteenth Century Logicians," *Franciscan Studies* 41 (1981) 61–96.

combination from which the elements of spoken language draw their rules of construction.

UNIVERSALS AS SIGNS

However it is defined, nominalism entails the ontological thesis of the singularity of being; thus, there are only individuals. Assuredly, no one imagines that common natures exist in the way singular things do, but many have found it indispensable to grant them *some* form of being or subsistence. The nominalist denies that beings can take on any such forms or degrees of being: for the nominalist, in contrast to what the Neoplatonist tradition suggested, anything that is, is singular – and, consequently it is so by itself, without the need to be individualized out of natures or essences. Ockham constantly asserts this irreducible singularity: "Anything one can imagine is, by itself, without anything being added to it, numerically one, singular thing" (*In Porphyr.* proem. sec. 2, ed. *Opera phil.* II: 10). Similarly, for Buridan, "all beings exist in a singular way" (*Quaest. de anima* I.5; *De differentia universalis ad individuum*, p. 153).

   This is why, according to the nominalists, the question of universals[9] should not be addressed by focusing chiefly on the being of the universal. Rather, one must admit from the start that the universal is a sign. If one accepts the previously established principles of semiology, the question might thus seem to be settled as soon as it is asked. This is not the case, however, because language inherently carries realist illusions, if only by using common names. Moreover, it is not clear what an individual is: there are changing realities (such as a human being who remains numerically the same through the different stages of life), collective entities (France, for example, or the Franciscan Order), mass nouns (such as 'water'), and so on. Ontological nominalism will thus have to be justified not by a direct proof (it functions here as a first principle), but by the critique of any form of realism.

   Accordingly, Ockham strives to show the contradictions in John Duns Scotus's doctrine of common natures (see Chapter 47). After having posited in *Summa logicae* I.14 that the universal is a sign, principally a mental sign, he immediately goes on in the next chapter to criticize the idea of the universal as a substance, whether it be something numerically the same or else multiple. Still, one might maintain that the universal is somehow in individuals without positing it as subsisting by itself. It is therefore necessary to mount a direct attack on Scotus's position (in I.16). The basis of this critique is a strict account of

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[9] On this question, see the detailed study by Alain de Libera, *La querelle des universaux de Platon à la fin du Moyen Âge* (Paris: Seuil, 1996).

distinctions that – setting aside mere differences in manner of signification – admits only of real distinctions. If there are two really distinct things, then God could make one exist without the other, even if they are naturally inseparable. Thus armed, Ockham resists both the idea of a common nature that would be really identical to the individual, yet formally distinct, as well as the idea of an individualizing difference such as 'Socrateity.' He concludes that the universal is a sign that is predicable of more than one individual, where the Aristotelian idea of a predicable (which had been ontologized by Porphyry) is understood in a decidedly semiological sense: "Any universal . . . is universal only by signification, because it is the sign of several things" (*Summa logicae* I.14). The universal is thus nothing like a *flatus vocis*, as the twelfth-century nominalist Roscelin famously held; it is not an empty sound, but on the contrary a signifying term.

Yet what does the universal signify? It cannot signify a common *nature*, since only individuals exist. According to Ockham, its signification is explained by *multiple reference*: it signifies a plurality of things. From the cognitive point of view, this thesis relies on a theory of the concept, explained in his *Commentary on the Sentences*, according to which concepts arise out of some sort of initial contact with things.[10] The concept is the act of conceiving one or more things, either intuitively or abstractively. From the logical–linguistic point of view, the concept signifies this plurality in a confused way; depending on how it is placed within a proposition, it can refer either to the whole of this plurality ('dogs are mammals') or to a part ('Labradors are dogs').

One may, nonetheless, wonder how to explain this multiple reference.[11] For Ockham, it is founded on a certain resemblance: individuals can be similar, and even "maximally similar" in the case of individuals of the same species. This resemblance is not a real relation in the sense of being some further entity beyond the items that resemble one another; it is not a "little thing among things." It is instead the fact that identical qualities or properties can be signified by the same mental sign, if I apply that sign to these individuals not discretely (to one or the other) but jointly (to all of them at once).

John Buridan discusses universals in various places, especially in his *Questions on Porphyry*. There he distinguishes between four senses of the universal. First, in logic, a quantifier such as 'all' or 'no' is said to be universal. Second, universal

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[10] See, e.g., *Ordinatio* prol., q . 9 and *Quaest. Phys.* 7. See also Joël Biard, *Guillaume d'Ockham: Logique et philosophie* (Paris: Presses Universitaires de France, 1997) pp. 67–75.

[11] Claude Panaccio, *Les mots, les concepts et les choses. Le sémantique de Guillaume d'Occam et le nominalisme d'aujourd'hui* (Montréal: Bellarmin, 1991) pp. 253–67.

propositions are distinguished from particular and singular propositions. Third, one speaks of a universal cause or a universal by causality. This designates entities that are causes of many effects, as God or the celestial intelligences are. This idea also evokes realist theories of the universal such as that of Robert Grosseteste in the thirteenth century, for whom universals are both principles of being and principles of knowledge, in a hierarchical conception of causes (*In Post. anal.* I.7). In Buridan, the sense is weakened, but the idea of a "cause of many" remains. It is only in this sense that the universal can be a substance. For Buridan, however, this sense is irrelevant to the question raised by Porphyry, that of the being and subsistence, separated or not, of genera and species. Only the fourth, final sense is relevant: the universal by predication, signification, and supposition. This universal is such because it signifies many things, and when it assumes a certain role (subject or predicate) in a proposition, it is able to refer to them.[12]

After Ockham and Buridan, the nominalist account of universals remains unchanged at its core: the universal is a sign, either conceptual or vocal. Later authors, beginning with Albert of Saxony,[13] adopt those expressions by Buridan that underline the exclusively logico–linguistic interpretation of predication.[14] And, when faced with various resurgences of realism in Oxford and Paris, nominalists generally respond with these Buridanian theses.

At the beginning of the sixteenth century, John of Celaya, a student of John Major, lectures on Aristotle "*secundum triplicem viam beate Thome, realium et nominalium.*" Thus discussions of schools or movements – the Thomistic way, the way of the *reales* (in this case, the Scotists), and the way of the Nominales – have become an integral part of reflection and exposition in logic and in philosophy. John of Celaya himself leans toward the last of these ways; he sets forth five main positions regarding universals, the last of which is then considered under several interpretations (*Expositio in librum Porphyrii* [ed. 1516, f. 5rb]).

The first, attributed to the Epicureans, is that the soul is material and the universal is nothing. It is quickly pushed aside because it would make science

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[12] See *Quaestiones libri Porphyrii* 4 (ed. Tatarzynski, p. 139): "In the fourth way, which is more relevant here, something is called 'universal' by predication – that is, because it is naturally apt to be predicated of many things. And in this way a universal is a significant term that can be the subject or the predicate in a categorical proposition." See also *Summulae* II (*De praedicabilibus*) 2.1.2 and *Quaest. de anima* I.5.

[13] *Quaest. in artem veterem* prooem. secs. 60–1; *Quaest. circa logicam* 10; *Perutilis logica* I.10–11. See also Christoph Kann, *Die Eigenschaften der Termini: eine Untersuchung zur "Perutilis logica" Alberts von Sachsen* (Leiden: Brill, 1994).

[14] "Such a universal by predication is called a universal by signification, because it signifies indifferently many things, and is called a universal by supposition because it supposits indifferently for many things" (Buridan, *Quaest. Porph.* 4, p. 139).

impossible. The second opinion is that of Plato and the Stoics. For them, universals, called ideas, exist by themselves and are exemplary causes of things. This position is rejected because of the separation that would make impossible any connection between the universal and that of which it is a universal. The third posits the universal as innate in us rather than the result of abstraction. No names are mentioned, but this view suggests Augustinianism. The fourth claims that the universal arises from an agent intellect that is God or an intelligence, and seems to evoke (here again without any names being mentioned) Greco-Arab Aristotelianism and its revivals in thirteenth-century scholastics like Albert the Great. The fifth and last opinion is that of Aristotle and his followers, who hold that the universal is *in* the many, but that it is still one thing, beyond the many things. Only this view is retained; it becomes the object of the three interpretations that John develops: one according to the doctrine of Thomas Aquinas, another according to the realism of the Subtle Doctor (Scotus), and a third according to the nominalists, whose doctrine is from the start characterized as "the most likely of all."

John of Celaya's attacks on realism rely on positions defended by George of Brussels at the end of the fifteenth century. The universal is defined as "a simple, univocal, formally common categorematic term." The expression "formally common" is explained in the following way: "By the term 'formally common,' it is meant that this term has a common connotation if it is a connotative term, and that if it is an absolute term, then it is a common one" (ibid., f. 7va). There are three kinds of universal (written, mental, and spoken), and the mental universal signifies naturally. In sum, John of Celaya embraces the conception of the universal as a term, with the result that the sciences are sciences of propositions, in which terms represent things.

Yet although universals are a central issue for the nominalists, no less important is the question of the ten Aristotelian categories.

THE CATEGORIES AS MODES OF SIGNIFICATION

From late antiquity, there is a question of whether the categories are names, thoughts, or things. Late medieval nominalism, addressing this issue, criticizes realist accounts of the categories but transforms the problem. The categories are not "genera of being" but types of terms, and so types of signs, either vocal or conceptual, classified according to the type of question to which they provide an answer: *quid? quale? quantum?* and so on. A term from the category of Substance is that which provides a correct answer to the question "what is?" (*Quid est?*)

This semiological conception of the categories is just as strong in John Buridan:

certain predicable terms signify the substance, without any extra connotation, and they fall under the category of Substance. Others signify or connote something about the substance (*circa substantiam*), so that, when said of primary substances, they signify not only what it is but how it is (*qualis est*), and they fall under the category of Quality, and similarly of Quantity and of others.

<div align="right">(*Summulae* III [De praedicamenta] 1.8)</div>

Earlier in the fourteenth century, Walter Burley, in defending a competing form of realism, draws two interpretative lines: one, which he dates back to Boethius and Simplicius, according to which Aristotle's *Categories* deals chiefly with significative vocal sounds (*de vocibus significativis*); another, found in Avicenna and Averroes, according to which category theory deals "chiefly with things, and with vocal sounds in a secondary manner and by way of consequence" (*Expositio super artem veterem*, *Comm. Cat.*, Prol.). Two centuries later, John of Celaya also mentions a *magna controversia inter doctores*, and literally copies Burley's terms, simply adding a few more recent authors in one or the other of these interpretative lines, including Burley himself and Paul of Venice on the "realist" side (see Chapter 47). But, as a good student of John Major, Celaya holds as more true the opinion according to which categories are only signs.

The controversy about the categories is not exhausted by these general considerations about their status. Behind this first question another immediately follows – namely, which categories of terms properly and directly correspond to things. As such, this question concerns the furnishing of the world. For Ockham, there are only two kinds of terms that properly and directly correspond to real things: substantial terms and qualitative terms. Beyond individual substances, Ockham admits only particular qualities (this white, that black); he rejects at length anything that would turn quantity into something distinct from substance. Thus, quantitative terms signify only certain dispositions of substances or qualities. The thesis is a delicate one because it has consequences for the doctrine of transubstantiation: Aquinas had assigned quantity as the real subject of qualities during the substantial change occurring in the sacrament of the altar. In his theological texts, Ockham strives to show that God can, in virtue of his omnipotence, separate the quality from the substance that is normally its subject (see, in particular, his *Tractatus de corpore Christi*). Buridan, in contrast, has a more nuanced position on this point: in *Summulae* III he sticks with an analysis of the modes of predication dealing with quantitative terms (*De praedicamenta* 3.3), but in his *Physics* he wonders whether the substance and the quantity are really identical. Relying on physical arguments, he leans there toward a real distinction between substance and what he calls "magnitude" (*Quaest. Phys.* I.8).

The other most controversial category undergoing "reduction" is Relation. Ockham wants to show that it is by no means a "little thing among things," something real through which substances would be linked with one another.[15] It is, rather, only a way of signifying several things that happen to have certain qualities, with respect to which it might be said, for example, that they resemble each other, or that one is the father of the other. Later nominalists add only nuances to this schema, without fundamentally calling it into question. Albert of Saxony, for example, emphasizes the conceptual aspect of the relation by making it "an act of the mind that links one thing to another."[16]

A COMMON APPROACH, AND A HISTORY

In addition to a few shared theses, one could mention numerous divergences among the nominalists. Thus, with respect to the signification of a proposition, one encounters a whole range of positions, going from Buridan's rejection of any proper and adequate significate of the proposition (beyond what the terms signify) all the way to Gregory of Rimini's defense of such a proper significate (which he calls the *complexe significabile*), and in between the different ways of treating propositions as *modi rerum*. (Although modes are usually understood as features of substances, they are sometimes assimilated to propositions or states of affairs – in the work of Nicole Oresme, for instance, and also sometimes in Albert of Saxony, and later in Jerome Pardo.)[17] Such cleavages do not neatly overlap with nominalism or realism. In fact, the nominalism of the later Middle Ages is not exhausted by a set of theses, let alone by a list of authors; it is characterized rather by a common approach, a way of doing philosophy.

The leading characteristic of this approach is the conviction that the logical analysis of language is an indispensable prerequisite for developments in other disciplines – it being only through words that we can get to things. Moreover, as is evident in their analyses of the categories, nominalists reject any logico–linguistic parallelism. Indeed, they are convinced that many difficulties come from the fact that we project certain traits of language onto the structure of the world. This does not prevent them from developing philosophical or theological theories; on the contrary, they are convinced that many errors in

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[15] See *Summa logicae* I.49–51; *Expositio in librum Praedicamentorum* 12; *Ordinatio* 30.3; *Quodlibet* VI.16 (where he speaks scornfully of a "little thing" [*parvam rem*]).

[16] *Quaest. in artem veterem, In Praed.* q. 4a sec. 569.

[17] See Joël Biard, "Les controverses sur l'objet du savoir et les 'complexe significabilia' à Paris au XIVᵉ siècle," in S. Caroti (ed.) *Quia inter doctores est magna dissensio. Les débats de philosophie naturelle à Paris au XIVᵉ siècle* (Florence: Olschki, 2004) 1–31; Alain de Libera, *La référence vide: théories de la proposition* (Paris: Seuil, 2002).

natural philosophy, in metaphysics, in theology, and perhaps in ethics arise from
a misunderstanding of our language. It is thus understandable that, at the end
of the Middle Ages, Ockham's theories are not invoked only in logic, but also
in theology, regarding, for example, the status of created charity as separated or
not in the soul, the nature of the divine act that justifies or condemns, and the
contingency of the divine commands that ground the moral law.[18] The theology
with which Martin Luther had to reckon in the early sixteenth century is that
of Gabriel Biel, who is strongly influenced by Ockham.

Second, the principle of parsimony known as "Ockham's Razor" becomes
meaningful in this context. To be sure, equivalent formulas are present in
Scotus. But, given that no one wants to multiply entities beyond necessity, it
still remains to be determined which ones are in fact necessary. It is true that
nominalists generally have a more parsimonious ontology than their adversaries.
But this becomes understandable only against the background of their theory
of language, which reduces the real scope of the categories or posits that certain
abstract nouns are simply synonyms of concrete nouns (for example, 'humanity'
is synonymous with 'human being') (see Chapter 12).

That is why, third, the nominalists craft a conception of signification that
incorporates a direct relation to individuals. This yields an extensional con-
ception of signification. Very quickly, however, an author such as Buridan
underlines the need to take into account phenomena that are not reducible to
this sort of direct reference to collections of individuals. Even so, it is from this
relation, and from the redefinition of the semiotic relations it entails, that he
designs a theory to account for phenomena such as those that are linked to verbs
of propositional attitude.

The nominalism of the later Middle Ages is thus also a history − a history
of internal debates just as much as of confrontations with competing positions.
There is no Ockhamist school, because of the ecclesiastical trouble that stopped
the career of the *Venerabilis inceptor*. There is not really a Buridanian school
either, because the positions of the closest of the contemporaries and successors
of the Picardian master (Albert of Saxony, Marsilius of Inghen, Nicole Oresme)
diverge as much in semantics as in physics. Even so, Buridan's theories exert a
lasting influence. One only has to read John Major's logic to see that Buridan
is his guide: he takes from him characteristic notions such as the appellation of
reason and a reductive analysis of the significate of the proposition. Extending
the teaching of Thomas Bricot and George of Brussels, Major gathers around

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[18] See Paul Vignaux, *Justification et prédestination au XIVe siècle. Duns Scot, Pierre d'Auriole, Guillaume
d'Ockham, Grégoire de Rimini* (Paris: Leroux, 1934; repr. Paris: Vrin, 1981); Joël Biard, *Guillaume
d'Ockham et la théologie* (Paris: Cerf, 1999) pp. 101–13.

him a whole group of students who will perpetuate this teaching. It is during this era, at the start of the sixteenth century, that nominalism becomes a "way." The confrontations that, two centuries earlier, arose from the particularities of various questions and answers are from now on labeled and catalogued into preestablished doctrines.

In these confrontations, nominalism was not always the predominant position. It is so in Paris at the beginning of the sixteenth century, presenting itself in opposition to Thomism and Scotism (assimilated to realism). It had been overturned, however, during the fifteenth century in Louvain, Cologne, and Central Europe, replaced by a doctrine of the universal that relied strongly on Albert the Great and that opposed not just Buridanism but also Scotism. At the same time it is attacked in Italy by Lorenzo Valla, who knows well the views of both Ockham and Paul of Venice, but who seeks to revalorize both rhetoric (the study of spoken language in discursive situations) and dialectic (reasoning concerning what is merely probable). Still, the memory of nominalism does not disappear. It rises again in the seventeenth century, in authors such as Thomas Hobbes, who develops a theory of universals as names, and in Leibniz, who mentions Ockham in his 1670 preface to Marius Nizolius's *De veris principiis* (*Philos. Schriften* IV: 157), and praises "the nominalist sect, the most profound of all the scholastics, and the most consistent with the spirit of our modern philosophy."

ACCIDENTS AND MODES

CALVIN G. NORMORE

The Middle Ages inherited from antiquity an approach to metaphysics which supposed both that, to provide an account of being, one provides a theory of categories, and that a division into substance and accident is fundamental to such an account. During the thousand years between Boethius and Descartes, this fundamental division was subjected to careful scrutiny and modified dramatically. Eventually even the term 'accident' was partially eclipsed by a competing term, 'mode,' which bespoke a competing metaphysical picture; by the mid-seventeenth century Descartes was able to contrast his ontology of substances and modes with an ontology of substances and "real" accidents.

The doctrine of real accidents that Descartes rejects has two medieval roots. One lies in the related theological mysteries of the Eucharist and the Incarnation, and the other lies in the perceived need for real accidents to account for at least some physical phenomena. This chapter explores how these roots formed and developed, how accidents came to be "real," and how real accidents came to be perceived as a philosophical mistake.

THE *CATEGORIES* FRAMEWORK

In his *Categories* chapter 4, Aristotle lists ten heads under which nouns and adjectives fall: Substance, Quality, Quantity, Relative, Place, Time, Situation, Habit, Action and Passion. Although there is little reason to think Aristotle was wedded to this list, it had special salience in the early medieval period, both because the *Categories* was translated and commented on by Boethius and because the list was also found in "On the Ten Categories" (*De decem categoriae*), a work attributed to Augustine (but likely from a hand influenced by Themistius). The list yields a motley crew, and the author of the *De decem categoriae* divides it into items that are intrinsic – Quality, Quantity, and Situation – and the rest, which are extrinsic. The intrinsic ones help in some way to constitute the substance, the extrinsic ones to situate it among others. The

author makes very clear that it is not possible for there to be substances without accidents, and – while not going as far as Boethius to suggest that substances are individuated by their accidents – certainly leaves open that possibility.

The *Categories* also distinguishes items along two further dimensions: whether they are "said of" other items and whether they are "in" other items. Primary substances (individual animals or terms referring to them are Aristotle's paradigms) are neither in a subject nor said of a subject, secondary substances (kinds of primary substances or terms referring to them) are "said of" a subject, and other items are "in" a subject but not said of the subject they are in. Since the items that are in a subject but not said of that subject correspond to the items that fall under the heads other than Substance in the list from *Categories* chapter 4, it would be natural enough to group these together and to have a common name for them – although Aristotle does not himself do this. 'Accidents' is that name. Aristotle does not tell us much in the *Categories* about what it is to be "in" a subject other than to deny that it is to be "a part of" the subject. He does suggest that the accidents that are in a primary substance are individual, like the primary substance itself, and that they cannot exist apart from and perhaps are individuated by the primary substance in which they are, but he does not tell us whether accidents of different categories are in their subject in a univocal sense of "in," whether accidents could themselves be subjects of other accidents, or whether substances and accidents have different existence conditions.

Answers to some of these questions can be gleaned from (or read into) Aristotle's *Physics* and *Metaphysics*; yet, while the *Categories* with Boethius's commentaries and the *De decem categoriae* were available throughout the early Middle Ages, the *Physics* and *Metaphysics* were translated only in the twelfth century. Not having Aristotle's more articulated discussions of the structure of substance, the equivocity of being, and the differences between what it is to be a substance and what it is to be an accident, early medieval Latin writers were free to speculate about these issues.

Although interest in the *Categories* never died in the Latin West and there were between the sixth and the late eleventh century a number of authors who developed accounts of real interest (John Scottus Eriugena and Anselm of Canterbury, for example), it is not until the very end of the eleventh century that we find a picture that would deeply influence later developments. We find this picture in a *Dialectica* attributed to one Garlandus and possibly dated as early as 1075; there is, in fact, reason to think that this *Dialectica* was one product of a movement which may have begun even earlier and which came to include

Roscelin of Compiegne, one of Peter Abaelard's teachers.[1] Garlandus posits an ontology of what he calls *res*, and he then treats the categories as categories of words that can apply to these *res*. As Garlandus uses it (and as Abaelard was to use it later) the term *res* signifies any item there is (*Dialectica* pp. 23–3). Any *res* can be classified using terms from the *Categories*. Indeed, Garlandus seems to think that any *res* can be classified using terms from each one of the Aristotelian categories – a given *res* might be Socrates, human, pale, and in the marketplace, and these predicates would apply to it with equal propriety. Thus, to think of Garlandian *res* as substances would be as improper as to think of them as accidents.

Abaelard studied with Roscelin and was much influenced by this picture. We have from his pen a much larger and more elaborated oeuvre than we have from Garlandus and so we can fill in more detail, but much of Abaelard's ontology is still badly understood. What is clear is that there are individual *essentiae* (a term that in Abaelard and his contemporaries does not mean essence as this is understood in, for example, Aquinas) and that these are all things (*res*). Individual *essentiae* informed by forms have "statuses" (*status*) that are picked out by such phrases as 'being human,' 'being pale,' and so on. There are far more statuses than forms and it is the statuses that are classified by the categories. Thus, for Abaelard a substance is an *essentia* with a substantial status – a status it presumably has by virtue of a substantial form. Abaelard holds that if a form F informs an *essentia* E it is correct to say that E is F. He also expressly maintains that a brightness may inform a whiteness (so that we may say the whiteness is bright), and that while a body may sustain that brightness (in virtue of sustaining the whiteness which it informs), the brightness does not inform the body (which is why we may not properly say that the body is bright). Thus Abaelard distinguishes a subject of predication, which is the subject of inherence, from what we might think of as a subject of constitution. One significant dimension along which substances and accidents differ is that it was widely believed by Christians (though not by Aristotle) that only God could produce a substance while humans and other natural agents could produce accidents. Abaelard held this view – and with it the view that material substances are distinguished from artifacts by the degree of unity among their parts.

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[1] The identity of the author of the *Dialectica*, its date and its relation to the work of Roscelin and that of a Master Johannes mentioned by the author of the *Historia Francia* are all disputed. For a path into the controversies see John Marenbon, "Medieval Latin Commentaries and Glosses on Aristotelian Logical Texts, Before c. 1150 AD," in C. Burnett (ed.) *Glosses and Commentaries on Aristotelian Logical Texts* (London: Warburg Institute, 1993) 77–127.

LATER MEDIEVAL DEVELOPMENTS

The translation of Aristotle's corpus into Latin together with both a number of Arabic commentaries and a number of independent Arabic treatises introduced a new complexity into an already complex story about accident. The standard Arabic term translated as *accidentia* in Latin is ʿaraḍ, and that term had been used by theologians (the *mutakallimūn*) to refer to anything that is not *jawhar*, a term that is typically translated as *substantia*. Since the *mutakallimūn* talked freely about all manner of items not in the Aristotelian categories, this raised a complex set of issues about whether these should be regarded as accidents. There was also the question that we saw above in the early Latin tradition of whether the very same item could be described as both a substance and an accident. For example, Solomon ibn Gabirol maintained that it could, Abraham ibn Daud that it could not. When Ibn Gabirol's major philosophical work, the *Fons vitae*, was translated into Latin in the second half of the twelfth century, this reinforced the already prevalent view that the division between substances and accidents is not absolute.[2]

All of this changed in the middle of the thirteenth century, when Albert the Great and Thomas Aquinas undertook to put a new and more authentically Aristotelian foundation under the *Categories*. From the very beginning of his career, as evidenced, for example, in his *De ente et essentia*, Aquinas presents a clear and largely novel account of the relations between substance and accident. Taking on board a wider variety of Aristotle's work than had been hitherto available, Aquinas proposes that, for accidents as Aristotle understands them, *esse est inesse* – "to be is to be in" (*In Post. an.* I.2). Thus it is, for Aristotle, simply conceptually impossible for an accident to exist without the subject in which it inheres. In his theological work, however, Aquinas himself maintains that this is not conceptually impossible, because what it is to be a particular quantity of two kilograms (say) is to have a natural tendency to be the quantity of some subject. It is not part of what it is to be a quantity that that tendency is actualized. Thus on Aquinas's view it is not essential to every accident to be an accident of anything (*Sent.* IV.12.1.1.1).

It is not clear, however, whether Aquinas means to apply this picture to every type of accident or only to quantity. On the picture that seems to be Aquinas's 'natural' reading of Aristotle, accidents are not only in their subjects in such a way that they exist only because their subjects do, but they are also individuated

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[2] See Resianne Fontaine, *In Defence of Judaism, Abraham ibn Daud: Sources and Structure of ha-Emunah ha-ramah* (Assen: Van Gorcum, 1990) p. 15 and the references therein.

by their subjects so that they are the very individual accidents they are in virtue of their being the accidents of the very subjects in which they are. From this it would seem to follow that a difference in the subject would make for a difference in the accident, and this is the line Aquinas takes with the death of a human being. When a human dies all of the accidents that were previously present are destroyed and many very similar accidents come into existence. However, Aquinas holds that in the case of the Eucharist, where the substance of the bread and wine are destroyed, numerically the same qualitative accidents remain.

As Aquinas understands it, what happens in the Eucharist is that the bread of the host and the wine in the cup are destroyed, and the body of Christ comes to be where they were. Nonetheless the qualitative accidents of the bread and wine remain and they do not remain as accidents of the body of Christ (*Summa theol.* 3a 77). How then do they remain? These accidents are accidents, and so they are individuated by a relation they bear to something else. What exactly is that something else?

Accidents for Aquinas are accidental forms, and forms for Aquinas are neither universal nor individual in themselves. Since they are not individual of them-selves, Aquinas thinks they have to be made individual. Accidental forms are individuated by the subject in which they inhere, but since he also holds that almost all of these subjects are composites of matter and substantial form, one might well inquire whether it is the matter, the substantial form, or the com-posite as a whole that is properly the subject of the accidents. Aquinas suggests that the substantial forms of material substances are individuated by the matter that they inform. But on Aquinas's view the only matter in a substance is prime matter (see Chapter 46). Prime matter is not of itself individual any more than substantial forms are. How could two principles that are not individual combine to make something that is? Aquinas seems to handle this problem by suggesting that matter is individuated prior, logically, to its being informed by a substantial form. Matter is individuated by being under dimensions. Since matter never exists except as the matter of something, it always appears under determinate dimensions, but what makes matter as such individual is indeterminate quantity. This makes quantity – which is, after all, an accident for Aristotle – a very strange accident indeed.

Aquinas holds that accidents in the eight accidental categories other than Quantity can remain after transubstantiation because those accidents are indi-viduated by another accident – namely, the dimensive quantity of the bread and wine – and this accident is in turn individuated of itself, depending on the bread and wine that sustain it only with respect to its existence, not with respect to being the very quantity that it is. Since God can supply any causal power a created substance can, God can sustain the dimensive quantity and

the other accidents in existence. And since the dimensive quantity needs nothing further to individuate it, and the other accidents are individuated through it, Aquinas concludes that numerically the same accidents present before the transubstantiation can be present afterwards.

Aquinas's thought seems to be that in the ordinary case both material substances and material accidents are individuated by being in individual parcels of matter that are themselves primary subjects of quantities with dimensions through which the accidents are immediately individuated. In the special case of the Eucharist, the matter is transformed into the matter of the body of Christ, but the dimensive quantity remains as a subsistent item that still serves as the basis for (and can be regarded as the subject of) other accidents.

If this is right, then we see in Aquinas's account of the Eucharist that quantity can serve as the subject of qualitative accidents. Moreover, we see that while for Aquinas quantity cannot naturally exist apart from substance, it supernaturally can: there is nothing in what the quantity is that involves its being in a substance as a subject, even though it is part of what quantity is to require something to sustain it in existence. And although it is part of what other accidents are to require a subject, that subject need not be substance: it could be and in the Eucharist is dimensive quantity.

One fairly minimal way of understanding the tag that for an accident to be is for it to be in a subject is as holding that to say that an accident exists is at least necessarily equivalent to saying that some substance is so modified. Different morals can be drawn from this. One would be that every predication such as 'Socrates is white' involves *two entities* – namely, Socrates and a whiteness – but that to speak of Socrates as an entity and to speak of the whiteness as an entity is to speak analogically. The other would be that to say a whiteness exists is just to say that some singular sentence such as 'Socrates is white' is true and that in *that* sentence no reference is made to an entity other than Socrates. On this reading, simply predicating existence in the accidental categories does not carry any ontological commitment over and above a commitment to the subjects of the accidents in question. From this perspective there may or may not be additional ontological commitments involved in particular accidental predications, but they are not signaled merely by the predication relation itself.

The first reading was Aquinas's. Aquinas maintains that each distinct category introduces new being, though equivocally, and this became the majority tradition within the Thomist school – numbering John Capreolus, Cajetan, Sylvester of Ferrara, and John Poinsot (John of St. Thomas) among its adherents. Perhaps surprisingly, the view that each category introduces new being was also adopted by John Duns Scotus, who thereby set the stage for what is

perhaps the most fundamental debate about 'realism' in the later Middle Ages.[3] While Scotus defended the position that accidents simply in virtue of being accidents are additional beings over and above the beings that are their subjects, a position defended by most of those prepared to call themselves Scotists, this position was vehemently rejected by Ockham and the entire tradition identified as nominalist (see Chapters 47–8).

The second reading was, however, more common, at least from the mid-thirteenth century on, and writers as diverse as Henry of Ghent, Peter of John Olivi, William of Ockham, and John Buridan subscribed to it. Some who understood predication in the accidental categories in this second way (Ockham and Buridan, for example) understood Aristotle's view to be that there was no need to suppose that any accidental category introduced beings not already introduced by the category of Substance. This position (reminiscent of that in the *Dialectica* of Garlandus) was generally not thought to be orthodox, however, because it seemed to leave no explanation of how, in the Eucharist, when the bread was transubstantiated into the body of Christ, the appearances of the bread could remain without the bread itself and without becoming accidents of the body of Christ. There was also thought to be physical evidence against it. Buridan, for example, holds that we cannot explain the facts of the *limits* on the rarefaction and condensation of bodies (that is, their expansion and contraction) without supposing that there is a real quantity or magnitude that a given body possesses. In his *Questions on the Physics* I.8, he canvasses the available explanations for the behavior of gas when heated or cooled and concludes that only by supposing a magnitude distinct from the thing can we save the phenomena. He then proposes that: "[J]ust as a thing already white is not able to become whiter except by the generation in it of whiteness together with the existing whiteness . . . so a thing already extended is not able to become greater without some generation of magnitude together with the existing magnitude" (ed. 1509, f. 11rb).

Although the view that there were *no* items picked out by terms in the nine categories of accident that were not picked out by terms in the category of Substance was rare in the later Middle Ages, there was a regular industry of trying to reduce the kinds of additional entities. Henry of Ghent, for example, posited that besides items in the category of Substance there were items picked

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[3] Whether Scotus would agree with Aquinas that beings picked out by terms in the accidental categories exist in the same sense that substances exist is a complex issue. See Giorgio Pini, *Categories and Logic in Duns Scotus: An Interpretation of Aristotle's Categories in the Late Thirteenth Century* (Leiden: Brill, 2002) for an extensive recent discussion.

out by terms in the categories of Quality and Quantity. Each of these is a *res* in its own right, and although each of them ordinarily exists in a substance, this is not part of what it is to be the *res* in question. Thus, for Henry there is no contradiction in a quality or a quantity existing without being in a subject. Buridan seems to have taken a similar position.

We have seen that Aquinas held that although the whiteness, shape, and so on of the bread and wine no longer inhere in any substance after the consecration, they do inhere in something – namely, the *quantity* of the bread and wine – that is, in the Eucharist miraculously conserved. This privileging of the role of quantity is reflected also (though differently) in Henry of Ghent and in Buridan. However, Peter of John Olivi took a different line, and in this he was followed by both Scotus and Ockham. Olivi claimed that, after the consecration, the qualities of the bread and wine remain without inhering in *any* subject. He was thus led to posit *real qualities*, which could exist by the power of God in the absence of any created substance. Within this picture these qualities exist in the same way substances do, and so 'being' is univocally applied to substances and qualities. Olivi, and Ockham after him, combined this view with an attack of the distinction between a substance and its quantity and so were led to the position that substances and qualities of certain kinds exhaust the range of real beings.

Ockham distinguishes sharply between claims like 'Socrates is human' and 'Socrates is pale.' Roughly speaking, 'human' is what he calls an absolute term, and its semantic function is just to signify human beings. Since the sentence is true just in case Socrates is one of these, the truth conditions for the sentence do not require anything more than humans (indeed than Socrates himself). On the other hand, something, say Socrates, is pale on Ockham's account in virtue of its "having" a paleness and, since we say correctly that Socrates is pale but not that he is a paleness, the paleness is not signified but consignified by 'pale.' Numerically the same thing can be pale at one time and not at another just because at one time it has a paleness and at the other it does not, whereas if a thing is human it cannot cease to be human without ceasing to be altogether.

Ockham is happy to say that we need nothing more for the truth of 'Socrates is human' than Socrates himself. It is just because both 'Socrates' and 'human' signify him that the sentence is true. Suppose now that for Socrates's paleness to exist is nothing more than for Socrates to be pale (as the Thomist reading of Aristotle suggests) and that, just as in the case of 'Socrates is human,' only Socrates is required for the truth of this. Then we do not have a truth-maker for Socrates being pale over and above Socrates. But, while Socrates's existence is enough to account for his being human, it surely is not enough to account

for his being pale – else he would be essentially pale (in the sense that while existing he could not but be pale). Hence it seems that 'Socrates is pale' requires the being of both Socrates and his particular paleness.

Accidental properties are precisely those such that it is in some sense contingent whether the thing that has them does indeed have them. ("In some sense" because there may be inseparable accidents, the so-called *propria*, but even these are not *metaphysically* inseparable.) But if we suppose that for those accidents to exist is nothing more than for their subject to be so qualified, we would have nothing with which to account for this contingency. Ockham is thus led to the conclusion that where there are genuine basic contingent facts about something (over and above its existence), there must either be accidents that exist in the sense of being separable from their subjects, or the subjects must have parts on whose arrangements the contingent facts supervene. On the other hand, what one might ordinarily call essential properties do not require such additional existences – though they may require that the subject be complex in some way. For example, for Socrates to be rational does not require any special being which is rationality – it is enough for Socrates to be rational that he exist – but for Socrates to exist Socrates must have a mind and Socrates is rational only if Socrates exists and his mind exists. Socrates's mind is, of course, just an essential part of Socrates himself.

Thus the doctrine of real accidents provided a solution to a number of problems in theology, physics and semantics. It did, however, have problems of its own. If substances and qualities exist in a univocal sense of 'exist' and if it is possible by God's power for qualities to exist without inhering in a subject, what then is the difference between a substance and a quality? This problem was exacerbated by another theological problem, that of the Incarnation. On the orthodox view of the Incarnation, the second person of the Trinity assumed a human nature – that is, acquired a human body and soul. You and I are, on the classical Christian Aristotelian hylomorphic picture, composites of body and soul; destroy my body and soul, and you would destroy me completely. But if Christ's body and soul were destroyed, the second person of the Trinity would not be destroyed. Each of us then simply is our body and soul. Christ, however, has a body and soul but is not simply a body and soul. What then is the relation between Christ and Christ's human nature? One suggestion, the one followed up by Scotus and the theologians most influenced by him, was that the relation between the two was analogous to that between a substance and a quality (*Ordinatio* III.1.1 n.3). As presented by Ockham (*Quodlibet* IV.7) the suggestion was that the composite of Christ's body and soul – were it to exist without being assumed – would be a human being like the rest of us. Having been assumed, it is related to the *suppositum* that is the second person

of the Trinity in the way my skin color is related to my skin. A consequence of this view is that what is ordinarily a substance can, with divine intervention, behave like an accident.

REAL ACCIDENTS VERSUS MODES

The upshot of these considerations is that the categorial distinction between substance and real accident became metaphysically problematic. If accidents can behave as substances ordinarily do, and substances can behave as accidents ordinarily do, what is the difference? The short answer given by this tradition is the one we found in Aquinas – that the difference lies in what they are naturally apt to do. Accidents are naturally fitted to inhere in substances; substances are not naturally fitted to inhere in anything. God can override this natural fit but not obliterate it. However, this answer requires a robust sense of nature distinct from God's power. It is thus not available for someone who wants to derive the characteristics of nature from the features of God's power.

The natural result of all this is that someone who rejects the distinction between the power by which God operates naturally and the power by which God operates supernaturally, as Descartes does, could also be expected to reject the view that there are real accidents distinct from substances. That is, of course, what Descartes also does, and for the very reasons we might expect. For example, to Hyperaspistes he remarks that "when people believe that accidents are real, they are representing them to themselves as substances" (ed. Adam and Tannery, III: 430), and to Regius in January 1642 (ibid., III: 503) he writes: "Now we do not deny active qualities, but we say that they should not be regarded as having any degree of reality greater than that of modes; for to regard them so is to conceive of them as substances." In these passages we have the well-known Cartesian contrast between *real accidents* and *modes*. 'Mode,' like 'real accident,' is a scholastic term. In the sense Descartes has in mind it seems to go back to medieval theories of the intension and remission of forms. According to some such theories, some features, heat or color for instance, can be found in various degrees (*gradus*) of intensity. Each such distinct degree is a mode (*modus*) of the feature.

This account is taken over by Duns Scotus and widened so that being can be said to come in modes – finite or infinite, for example – and is widened still further by his followers. Scotus goes on to speak of a *modal distinction* between an item and its mode, which allows one to speak of them as distinct items but does not allow that the mode can exist without that of which it is a mode (*Ordinatio* I.8.1.3 nn. 138–40). There is also another tradition of talking about modes which interacts with the one just mentioned. We saw it at work

already in the *Dialectica* of Garlandus where the categories are spoken of as signifying things in *diversis modis*. There was a long and controversial tradition of attempting to equate each category with a different mode of predicating, a tradition which sometimes tried to remain neutral on the issue of whether the modes of predicating corresponded to ways of being in the world but which in the hands of the so-called *modistae* postulated a full-fledged parallelism between modes of signifying and modes of being. These two conceptions of mode would be easy to conflate.

In the context of late medieval metaphysics, talk about modes of a thing is usually alternative to talk about real accidents. What it is an alternative to is the use of real accidents in accounting for change. Sometimes it is true to say of a given poker that it is hot; at other times it is true to say that the poker is not hot. Why? Because the temperature of the poker has changed. In what does this change of temperature of the poker consist? Two stories seem plausible: that the change consists in the subtraction of units of heat (or the addition of cold, if you prefer), or that the change consists in a difference in the *way* (*modus*) the poker is but not in the addition or subtraction of any*thing*. If we adopt the first alternative, we have the doctrine of real accidents. The second alternative is the doctrine of the modes of substance.

We can see the Cartesian theory of modes as a reasonable response to the problems raised by the late scholastic theory of real accidents and, in particular, to the suggestion that accidents might differ from substances in having a natural tendency to inhere that substances lack. On this suggestion accidents could fail to inhere and substances could inhere or do something very like inhere, but these would be unnatural states. This reliance on the distinction between the natural and the supernatural requires that we be able to make sense of a distinction between what would be natural for a thing and what would be possible for it with supernatural intervention. Moreover, it requires either that this distinction itself be metaphysically necessary or that we accept that categorial distinctions themselves be contingent. Neither of these is a happy option. That it be a contingent matter whether something is a substance or an accident is, on the face of it, very strange. That the distinction between the natural and the supernatural be itself necessary may seem less strange, but it does require that the natures of things be independent of God's choices – and it is far from clear that Descartes, at least, would accept this.

Ockham has to suppose real qualities because he does not believe that all change can be reduced to the generation and corruption of substances and the rearrangements of their parts. Early modern mechanical philosophy can be seen as the result of taking that further step; by the time we come to Descartes, all the change in extended substances is explained in terms of the rearrangements

of their parts. Accordingly, there is no longer any need for real accidents (which Descartes correctly sees as little different from substances), and one can equate the existence of a mode with a substance being disposed thus and so. At bottom, that disposition is a matter of spatial arrangement either at a time or (as in the case of motion) over time.

The doctrine of modes – taken together with the view that all change is creation, annihilation, or local motion – is promising as an account of the extended universe. But Descartes has not only extended substances with their innumerable parts, but also *res cogitantes*, which are simple, and yet which he claims to be multiply modified (at least over time). From the Ockhamist point of view this is a great mystery. What is the difference between my thinking of Manhattan and my thinking of Vienna? It cannot be in parts of my mind being differently arranged, because my mind has no parts. It cannot be in there being *thoughts* that are related to my mind – that is just the despised doctrine of real accidents. So, Descartes claims, it is just for my mind to have one mode rather than another. And what is that? Modes, says he, have no being of their own – they borrow all their being from their subjects. But if the being of my thinking of Vienna is just my being, and so is the being of my thinking of Manhattan, then what can be the difference between them? One possibility is a different relation to something else: my thinking of Manhattan involves my mind and something else (Manhattan, say), and my thinking of Vienna involves my mind and another thing (say, Vienna). Let us call this externalism. Another possibility is to abandon the simplicity of the mind and to insist on its having real parts. Both are live and lively contemporary options. They arise, quite possibly, from the dialectic of the argument itself. The debate between the doctrine of real accidents and the doctrine of modes is still with us.

IX

THEOLOGY

PHILOSOPHY AND THEOLOGY

M. W. F. STONE AND ROBERT WISNOVSKY

THE LATIN WEST (STONE)

In the resplendent summer of 1997 an incongruous collection of scholars from the four corners of the earth assembled in Erfurt, Germany, to discuss the seemingly anodyne yet strangely engaging question: "What is Philosophy in the Middle Ages?" Sponsored by the Société Internationale pour l'Étude de la Philosophie Médiévale (SIEPM), and organized by genial hosts from the Thomas-Institut of the University of Cologne, the conference debated over long days and balmy nights the nature, scope, and point of philosophical discourse in the Middle Ages.[1] Even though the distinguished speakers and other delegates who held forth during the interminable sessions brought to bear insight and erudition in their respective analyses of the chosen theme, the conference concluded its business without reaching any firm agreement. With the conversation and *convivio* at an end, the delegates returned to their respective countries harboring quite incommensurate ideas about just what was "philosophy" in the Middle Ages, many remaining unsure whether it could or ought to be distinguished from "theology."

That unanimity on the question of the exact relationship of "philosophy" and "theology" should prove so utterly elusive, even in the context of one of the more significant gatherings of medieval scholars in recent years, is not in the least surprising when one considers that the independence, or otherwise, of philosophy from theology has been continuously contested and vicariously debated, ever since the establishment of "medieval philosophy" as a recognizable branch of the history of philosophy in the nineteenth century.[2] As such, the problem of identifying and then individuating philosophy in the Middle Ages

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[1] The proceedings of the conference were subsequently published by Jan Aertsen and Andreas Speer (eds.) *Was ist Philosophie im Mittelalter? Qu'est-ce que la philosophie au moyen âge? What is Philosophy in the Middle Ages?* (Berlin: De Gruyter, 1998).

[2] For a history of the early years of the discipline see John Inglis, *Spheres of Philosophical Inquiry and the Historiography of Medieval Philosophy* (Leiden: Brill, 1998).

is generated by a blatant historical disparity that exists between "philosophy" (*philosophia*) as it was understood and practiced by medieval Christians, and the seemingly related discipline that graces the modern age. Nowhere is this more apparent than in the fact that those thinkers who have been acknowledged by posterity to have made a significant contribution to Western philosophy, such as Thomas Aquinas, John Duns Scotus, and William of Ockham, did not represent themselves as "philosophers" at all, but rather viewed their own efforts through the lens of "sacred doctrine" (*sacra doctrina*). As theologians (*theologi*), they sought to understand the content and meaning of their theistic beliefs, and while this endeavor could include the appropriation of "philosophical" ideas and arguments, the point of the exercise was to acquire knowledge of God and provide a rational foundation for the Christian faith.

The institutional settings

A significant aspect of the complicated relationship of philosophy and theology can be initially clarified by examining their very different institutional settings.[3] As an academic discipline, philosophy, insofar as it was practiced in medieval universities, was not studied by means of a designated core of subjects, even though disciplines such as logic and antecedent forms of more modern fields of philosophical inquiry can be discerned in medieval debates. Further-more, the subject was not studied historically since no recognized canon of authorities existed. Even when individual thinkers such as Aristotle were lauded and valorized as "the philosopher,"[4] their writings were thoroughly policed by the perceived truths of theology, and were considered inferior to the authorities (*auctoritates*) of the Christian tradition.[5] Situated in the arts faculty, what we would recognize as elements of philosophy were taught in the context of the trivium (grammar, rhetoric, and dialectic) and the later quadrivium (geometry, astronomy, arithmetic, and music), and were a part of a more general education in the liberal arts (*artes liberales*).[6]

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[3] See Jacques Verger, *Les universités au moyen âge* (Paris: Publications universitaires de France, 1973), and Olaf Pedersen, *The First Universities: Studium Generale and the Origins of University Education in Europe* (Cambridge: Cambridge University Press, 1997).

[4] For an important set of explanations of how this and other corresponding terms were used, see Mariken Teeuwen, *The Vocabulary of Intellectual Life in the Middle Ages* (Turnhout: Brepols, 2003) pp. 376–83.

[5] On the use of the Fathers in early and late medieval theology, see Irene Backus (ed.) *The Reception of the Church Fathers in the West: From the Carolingians to the Maurists* (Leiden: Brill, 1997).

[6] On the arts faculties see J. M. Fletcher, "The Faculty of Arts," in J. I. Catto *et al.* (eds.) *The History of the University of Oxford* (Oxford: Clarendon Press, 1984) 369–99, and James A. Weisheipl, "The Parisian Faculty of Arts in Mid-Thirteenth Century: 1240–1270," *American Benedictine Review* 25 (1974) 200–17.

From the mid-thirteenth century onwards, the pedagogical program of the liberal arts was embellished and revised in order to take account of the writings of Aristotle, as can be seen in statutes such as that of Paris in 1255. From that time, most of the *corpus Aristotelicum* became required reading in the arts faculties, and thereby formed the basis of a detailed philosophical and scientific education (see Chapter 4). It remains controversial whether we can find an autonomous or even textually identifiable "Aristotelian philosophy" among the writings of the arts masters. What is certain, however, is that the *magistri* of the medieval university accompanied Aristotle through the host of topics he broached in his encyclopedic corpus, from logic to poetics, from the physics of moving bodies through the species of plants and animals, to the movement of the heavens. With the wholesale assimilation of Aristotelian thought into the curriculum of the arts faculty, "philosophical" and "scientific" learning become intertwined, providing a comprehensive training in speculative inquiry and rational demonstration.

Such knowledge was deemed to facilitate further and more rarefied study in the faculty of theology. There, the Bible was the main resource of authoritative instruction, with the dogmatic teaching of the Church Fathers, especially Augustine, functioning in a supporting role. By the end of the twelfth century, theologians such as Peter of Poitiers, and then Peter Lombard, began to assemble the *dicta* of the Fathers as well as relevant biblical passages into collections of opinions or *sententiae*.[7] Lombard's *Sentences* became the most popular textbook in theology, and helped to shape theological reflection until the end of the seventeenth century.[8] Students in theology were expected to attend lectures on the Bible and the *Sentences* for several years. Once they had assumed the title of bachelor, they had to deliver their own lectures on these very same texts. After three to four years of offering such courses they participated in faculty disputations for at least one year prior to being admitted into the company of the masters (*magistri*) with whom they had studied. As *magistri* they were required to lecture on the Bible, hold regular disputed questions, and advance their own theological ideas through preaching. In their rehearsal and prosecution of every conceivable form of theological argument, medieval thinkers did make extensive use of logic, metaphysics, and philosophical psychology, especially in their clarification of issues such as the Trinity,[9] but their investment in these

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[7] On this see Marcia Colish, *Peter Lombard* (Leiden: Brill, 1994), and Philipp W. Rosemann, *The Story of a Great Medieval Book: Peter Lombard's Sentences* (Peterborough, ON: Broadview, 2007).

[8] See G. R. Evans (ed.) *Medieval Commentaries on the Sentences of Peter Lombard*, vol. I: *Current Research* (Leiden: Brill, 2002).

[9] On this see the important study by Russell L. Friedman, *Intellectual Traditions in the Medieval University: The Use of Philosophical Psychology in Trinitarian Theology among the Franciscans and Dominicans, 1250–1350* (Leiden: Brill, 2008).

subjects was never gratuitous nor was it ever motivated by purely philosophical concerns.

Modern scholarly strategies

It is somewhat ironic that while medieval theologians were quite relaxed in their attitudes towards Aristotelian philosophy, and thought nothing of appropriating its dialectical methods for what they deemed to be higher ends, modern scholars of "medieval philosophy" have always been conscious of the need to assert, and to reassert, the purely *philosophical* credentials of their discipline. This is a marked feature of the subject from the days of the writings of Barthélemy Hauréau, Joseph Kleutgen, and Albert Stöckl, to the synoptic histories of Martin Grabmann, Maurice de Wulf, and Étienne Gilson, and on to the commodious introductions, learned monographs, readers, and multiple anthologies of the present era. With the exception of Gilson's highly contentious thesis that philosophy throughout the medieval period was "Christian philosophy," or the conceptual clarification and defense of the truths of revelation, many leading specialists have tried to distill the "essence" of medieval philosophy by adopting one or other of the following strategies.

In the first instance, some scholars have attempted to explain the contribution of the medieval cognoscenti to the perennial philosophical problems of the West. On this model, thinkers in the Middle Ages, like those of antiquity and early modernity, are deemed to have made a specific bequest to Western philosophical learning that can be studied both for its own sake, and for the sake of acquiring a balanced philosophical education. Second, other specialists have argued that while the practice of philosophy in the Middle Ages is altogether odd when viewed from the perspectives of the present, the subject is still of profound importance because it can be shown to be historically continuous with the efforts of modern philosophers.[10] Examples of both these tendencies have enlivened the discipline from its very early years, as when Kleutgen and Stöckl took issue with Hauréau's overtly theological understanding of the relationship between reason and revelation,[11] and De Wulf formulated the idea that a common "scholastic" patrimony existed among medieval thinkers, a patrimony

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[10] The merits or otherwise of these different approaches are discussed in recent volumes such as David Luscombe, *Medieval Thought* (Oxford: Oxford University Press, 1997); Jorge J. E. Gracia and Timothy B. Noone (eds.) *A Companion to Philosophy in the Middle Ages* (Oxford: Blackwell, 2003); and A. S. McGrade (ed.) *The Cambridge Companion to Medieval Philosophy* (Cambridge: Cambridge University Press, 2003).

[11] On this see Inglis, *Spheres of Philosophical Inquiry*, pp. 41–61.

which he thought proved resistant to any characterization in terms of sacred doctrine.[12]

More recently, we have been invited to consider other ways in which the content of medieval philosophy can be viewed apart from theology. In the English-speaking world one influential approach has been the promotion of the opinion that a large part of the known corpus of medieval philosophy is consistent with the methods of analytic philosophy, whose own arguments and techniques, especially in logic and the philosophy of language, are thought to resemble the efforts of medieval schoolmen.[13] A similar move, albeit driven by different motives, can be seen in the approach of those who argue that medieval philosophy is the study of the transcendentals, concepts such as *Being*, *One*, *True*, *Good*, and *Beautiful*.[14] Less beholden to the methodological outlook of analytic philosophy, this theory is just as eager to emphasize the independence of medieval philosophy from theology, even though it is also moved to explain how and why authors like Thomas Aquinas used transcendental concepts in their *philosophical* account of human knowledge of God.

Against these prominent and suggestive attempts to capture the distinctiveness and independence of medieval philosophy, Alain de Libera has argued that the essence of the subject resides elsewhere. With the target of Gilson's thesis of Christian philosophy firmly in his sights, de Libera has claimed that increasing cognizance of ancient and Arabic philosophy among members of the arts faculty at Paris in the late thirteenth century not only served to challenge theological orthodoxy but also bequeathed philosophy as an autonomous intellectual pursuit, a discipline largely independent of the external control of theology. For de Libera, the *magistri* of late thirteenth-century Paris are a new intellectual class, *les philosophes*, whose theories concerning human happiness, the immortality of the soul, the eternity of the world, and the capacity of the intellect to know higher things seemed to eliminate the need for many of the Christian verities.

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[12] See ibid., pp. 168–92. De Wulf's writings should be in seen in the light of Stöckl's influence upon him, but also viewed in synergy with the efforts of Grabmann to provide an equally comprehensive history of a generic "scholastic tradition."

[13] This view can be associated with philosophers such as Peter Geach, Anthony Kenny, and Norman Kretzmann, and is still widely followed today, as can be evinced in the current volume. The apotheosis of this approach was the completion by Kretzmann, Jan Pinborg, and Kenny of *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982), in which the subject was largely presented by means of the history of logic and the philosophy of language.

[14] Originally advanced in a series of papers by Jan Aertsen, and set out in his *Medieval Philosophy and the Transcendentals: The Case of Thomas Aquinas* (Leiden: Brill, 1996), this approach enjoys something of a modest scholarly profile, not least in virtue of its confident reassertion in numerous doctoral dissertations published by Aertsen's former students.

Furthermore, the institutional intrigues and political machinations of this new intellectual constituency finally brought philosophy and theology into irrevocable conflict, with the infamous condemnation of 1277 apparently bearing witness to the fact that the theologians were minded to bring the philosophers back within their control (see Chapter 8).[15]

And yet why should contemporary scholars expend such great effort in their quest to reveal the purely philosophical basis of their chosen discipline? This question does not invite a facile answer, but one of the reasons why the discussion of the relationship between philosophy and theology in the Middle Ages continues to occasion such spirited debate and commentary derives from the fact that current practitioners of medieval philosophy are children of a modern intellectual culture that is smitten by the view that one cannot be truly "philosophical" if one is beholden to a network of antecedent beliefs and assumptions that draw upon the resources of religious faith and divine revelation.[16] In and of itself, an uncritical acceptance of this view can lead to a serious distortion of important features of medieval intellectual life, since it will commit a scholar to seek a conception of philosophy that neatly equates with current tastes and predilections, rather than allowing the medieval ideas and opinions to stand on their terms. Whether one likes it or not, the practice of specific aspects of "philosophy" among members of the arts faculties was bound up with various forms of "scientific" learning as well as with the pursuit of the liberal arts: the discipline as we recognize it did not exist. In the faculty of theology, theories and arguments gleaned from the texts of Aristotle and some others were utilized and then placed in the service of *sacra doctrina*. These sober facts surely enjoin us to resist any temptation to recast philosophy in the Middle Ages in our own self-image; anachronism is no friend to medieval scholarship.

Philosophy in the context of theology

In the matter of specifying the precise relationship of philosophy to theology, we have much to learn from medieval thinkers themselves, who, unburdened by our concerns and limitations, developed original philosophical arguments in the

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[15] De Libera's understanding of the events of 1277 and every other conceivable aspect of Bishop Tempier's condemnation are explored and debated in the volume by Jan A. Aertsen, Kent Emery, and Andreas Speer (eds.) *Nach der Verurteilung von 1277: Philosophie und Theologie an der Universität von Paris im letzten Viertel des 13. Jahrhunderts: Studien und Texte* (Berlin: De Gruyter, 2001).

[16] Here one thinks of Bertrand Russell's often quoted yet egregiously silly remark that Thomas Aquinas lacked "the true philosophic spirit" because he already knew the truth to be declared in the Catholic faith. See *A History of Western Philosophy* (London: Allen and Unwin, 1946) p. 484.

context of theology. By extending the purview of speculative investigation into every area of the natural and supernatural worlds,[17] medieval *theologi* addressed problems and perplexities that derived from their earnest reflection on religious faith and the search for its rational basis. In many works the conversion or ascent of philosophy to faith is the central theme, as can be witnessed in Boethius's *Consolation of Philosophy*, where the figure of philosophy reminds the author of those verities without which his faith cannot be restored. One of the more enduring models of reflection on divine matters was presented by Anselm of Canterbury in his *Proslogion*. Building on the intellectual heritage of Augustine and his monastic interpreters, he used the phrase *fides quaerens intellectum*: "faith seeking understanding." We can clearly see this strategy at work in what was known to medieval writers as the *ratio Anselmi* (later baptized by Immanuel Kant as the "ontological argument") in *Proslogion* chs. 2–3 (see Chapter 53).[18] It can be argued that one does much better justice to Anselm's intentions if one views "the argument" (such as it may be) not as a demonstration of the existence of God, but as a systematic investigation into God's mode of existence. As a person seeking understanding (*fidelis quaerens intellectum*), Anselm begins from a faith that provides the conceptual parameters of his philosophical reflection, and then attempts to win his way through to a better understanding of the divine nature.[19]

In terms loosely contiguous with Anselm's project, other medieval authors clarified the relation between philosophy and theology by insisting that philosophy must be studied thoroughly before proceeding to theology. The absorption of elements of Aristotelian philosophy into theological discourse in the second half of the thirteenth century only served to make the discussion of issues concerning the immortality of the soul, angels, and the Trinity more sophisticated and susceptible to further clarification and reasoned analysis.[20] Examples of this preference can be found in thinkers as diverse as William of Auvergne, Robert Grosseteste, and Bonaventure, or in the work of Albert the Great and Roger Bacon, whose own commitment to active research in natural philosophy enabled them to provide a detailed account of the hierarchy of human

[17] On this see the eloquent description of Richard W. Southern, *Scholastic Humanism and the Unification of Europe*, vol. I: *Foundations* (Oxford: Blackwell, 1995) pp. 17–18. See also Alexander Murray, *Reason and Society in the Middle Ages* (Oxford: Clarendon Press, 1978).

[18] For a history of this form of reasoning throughout the high medieval period see the dated, if still useful, Augustinus Daniels, *Quellenbeiträge und Untersuchungen zur Geschichte der Gottesbeweise im XIII. Jahrhundert* (Münster: Aschendorff, 1909).

[19] See Georgi Kapriev, *Ipsa vita et veritas: der ontologische Gottesbeweis und die Ideenwelt Anselms von Canterbury* (Leiden: Brill, 1998).

[20] The best general guide to these diverse debates is still A. M. Landgraf, *Dogmengeschichte der Früh Scholastik* (Regensburg: Pustet, 1952–6).

knowledge, beginning with what we know in the physical sciences and the liberal arts, and concluding with the heady heights of theology.[21]

When we peruse the intellectual achievements of the last quarter of the thirteenth and the first half of the fourteenth century, and acquaint ourselves with the works of Aquinas, Henry of Ghent, Giles of Rome, Duns Scotus, Durand of St. Pourçain, Peter Auriol, Robert Holcot, and Ockham, we find there a profound illustration of the range and diversity of the engagement of medieval theologians with the Aristotelian inheritance, especially the Organon, and also a deep commitment to utilize rational thought for the analysis, clarification, and vindication of dogmatic truth.[22]

Aquinas, for instance, holds that theology (*theologia*) employs, improves, and then perfects the best of ancient philosophy. He extends great deference to pagan philosophers, especially Aristotle, but whenever he speaks in his own voice he systematically transforms most of the Aristotelian doctrines he discusses, often in directions quite opposed to the Stagirite's original intentions.[23] Henry of Ghent utilizes the multifarious resources of philosophy, including selected insights gleaned from Averroes, Avicenna, Aristotle, and the Neoplatonic tradition in his account of creatures and creator, and in his distinctive metaphysical proofs of the existence of God.[24] Scotus, on the other hand, begins by candidly refusing to accommodate everything of Aristotle into theology; nevertheless his approach to divinity is nothing but a complex *mélange* of his utilization of the theological legacy of Augustine, the philosophical deposit of Neoplatonism, a considered reaction to the work of his contemporaries (especially Thomas and Henry), and a reading of Aristotle refracted through the glass of Latin Averroism.[25]

In the writings of the dominant theologians of Paris and Oxford in the first half of the fourteenth century, the place of philosophical reasoning in

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[21] For contrasting readings of these developments see Edward Grant, *God and Reason in the Middle Ages* (Cambridge: Cambridge University Press, 2001); and Steven P. Marrone, *The Light of Thy Countenance. Science and Knowledge of God in the Thirteenth Century* (Leiden: Brill, 2001).

[22] Dominik Perler and Ulrich Rudolph, *Logik und Theologie: das Organon im arabischen und im lateinischen Mittelalter* (Leiden: Brill, 2005).

[23] Aquinas's appropriation of Aristotelian philosophy for theological purposes has long and famously been disputed by scholars. For contrasting approaches see Étienne Gilson, *Le thomisme: introduction au système de Saint Thomas d'Aquin* (Strasbourg: Vix, 1919; 6th edn Paris: Vrin, 1983); Fernand van Steenberghen, *Le problème de l'existence de Dieu dans les écrits de S. Thomas d'Aquin* (Louvain-la-Neuve: Institut Supérieur de Philosophie, 1980); and Eleonore Stump, *Aquinas* (London: Routledge, 2003).

[24] On Henry's theology see Guy Guldentops and Carlos Steel (eds.) *Henry of Ghent and the Transformation of Scholastic Thought: Studies in Memory of Jos Decorte* (Leuven: Leuven University Press, 2003) esp. pp. 259–408.

[25] Different perspectives on Scotus's philosophical theology can be found in Oliver Boulnois, *Être et representation: une généalogie de la métaphysique moderne à l'époque de Duns Scotus (XIIIe–XIVe siècle)* (Paris: Publications universitaires de France, 1999); and Richard Cross, *Duns Scotus on God* (Aldershot: Ashgate, 2004).

theological discourse is evident for all to see. This age not only witnessed the full appropriation of logic into Trinitarian theology,[26] but is further noteworthy for its expansive discussion of a whole host of philosophical issues in metaphysics, especially the topic of relations, as they impinged upon several subjects germane to theological reflection. Durand of St. Pourçain, for instance, made a distinguished contribution to this topic and to philosophical psychology,[27] as did the Franciscan theologian Peter Auriol, whose own work challenged several of the basic assumptions of late thirteenth-century thought, and ushered in new horizons of thought in ontology and the theory of knowledge.[28] That said, the profusion of sophisticated philosophical arguments in the early fourteenth century can often disguise a more general awareness on the part of *theologi* of the limits of rational enquiry and of their increasing realization that some of the more recondite pronouncements of Christian dogma, such as the Trinity, must be accepted by faith alone.[29]

At Oxford, thinkers such as the Dominican Robert Holcot debated, among other things, whether Aristotelian logic was sufficient for dealing with theological antinomies, and Thomas Bradwardine, like countless others before and after him, wrestled with the problem of divine foreknowledge. One of the greatest English theologians of the century, Ockham, saw fit to repudiate some of the central features of the metaphysics espoused by his forebears, but he repeatedly sought to use Aristotle's work to support his own innovative philosophical views while he aspired to be perceived as a faithful theologian.[30] In succeeding years, "nominalist" and "Augustinian" thinkers as gifted and as radically different as Gregory of Rimini,[31] Marsilius of Inghen,[32] and Gabriel Biel[33] continued to appropriate philosophical arguments and theories for theological ends. Far from reducing late medieval theology to a state of "decadence," as

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[26] See Hester Goodenough Gelber, *It Could Have Been Otherwise: Contingency and Necessity in Dominican Theology at Oxford, 1300–1350* (Leiden: Brill, 2004).

[27] See Isabel Iribarren, *Durandus of St. Pourcain: A Dominican Theologian in the Shadow of Aquinas* (New York: Oxford University Press, 2005).

[28] Chris Schabel, *Theology at Paris 1316–1345: Peter Auriol and the Problem of Divine Foreknowledge and Future Contingents* (Aldershot: Ashgate, 2000).

[29] See Friedman, *Intellectual Traditions in the Medieval University*.

[30] On Ockham's theology compare the contrasting approaches of Marilyn McCord Adams, *William Ockham* (Notre Dame, IN: University of Notre Dame Press, 1987); and Armand Maurer, *The Philosophy of William of Ockham in the Light of its Principles* (Toronto: Pontifical Institute of Mediaeval Studies, 1999).

[31] For an illuminating discussion of late medieval Augustinian theology see Eric Saak, *High Way to Heaven: The Augustinian Platform between Reform and Reformation, 1292–1524* (Leiden: Brill, 2002).

[32] See Maarten J. M. Hoenen and Paul J. J. M. Bakker (eds.) *Philosophie und Theologie des ausgehenden Mittelalters: Marsilius von Inghen und das Denken seiner Zeit* (Leiden: Brill, 2000).

[33] See Heiko Oberman, *The Harvest of Medieval Theology: Gabriel Biel and Late Medieval Nominalism* (Cambridge, MA: Harvard University Press, 1963).

Gilson and other Thomistically inclined scholars of medieval philosophy once argued, these thinkers refreshed and ameliorated the speculative quality of theological discourse in the years leading to the Reformation, helping to create a pluralistic discipline open to a diversity of influences.[34] Even with the rise of less "scholastic," more apophatic, and even humanistic forms of theology that can be found in the writings of John Gerson, Nicholas of Cusa, Heymeric de Campo, and Denys the Carthusian, recognizably philosophical ideas and methods are never far from view (see Chapter 52).

What all this demonstrates is that for thinkers of the high and late Middle Ages, philosophical concepts and methods were simply indispensable to the more rarefied aspects of theological debate; human reason, even in its fallen state, could make a substantial contribution to acquiring genuine knowledge of the natural and supernatural orders. While the *theologi* accepted that Christian verity extended far beyond the purview of the ideas of the ancient philosophers, they were always mindful of the uses to which speculative reflection could be put, and were prepared to experiment with a wide range of philosophical notions in their theological labors.

ISLAM (WISNOVSKY)

One of the main axes of Islamic intellectual culture in the Middle Ages was the relationship between *kalām* (the Arabic term for *speech* or *discourse*, but usually taken to mean simply *theology*) and *falsafa* (the Arabic transliteration of the Greek *philosophia*). The present chapter will argue that, far from being wholly distinct categories, *kalām* and *falsafa* were less oppositional than is generally assumed. It appears in fact that both *kalām* and *falsafa* fall on one side of a larger distinction in Islamic thought, the distinction between knowledge that arises from *intellect* and knowledge that arises from *transmission*; and even this distinction is not hard and fast.

The tendency toward taxonomy

Writing in the late fourteenth century, the North African historian Ibn Khaldūn grumbled that unlike the good old days, when *kalām* and *falsafa* were discrete enterprises, "among these moderns the two methods have become so intermingled and the problems of *kalām* have become so conflated with the problems

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[34] This aspect is especially well brought out in the important study by Paul J. J. M. Bakker, *La raison et le miracle: les doctrines eucharistiques (c. 1250–c. 1400). Contribution à l'étude des rapports entre philosophie et théologie* (Nijmegen: Katholieke Universiteit Nijmegen, 1999).

of *falsafa* that the one discipline is indistinguishable from the other."[35] Ibn Khaldūn's statement is worth citing not just for what it says about the changing relationship between *kalām* and *falsafa*. Their increasing synthesis is a plain fact about medieval Islamic civilization, a development that is clear to anyone who reads the works of post-classical (that is, post-1050) Muslim thinkers.[36] What is more striking is Ibn Khaldūn's acknowledgment that their relationship had changed, and with that an implicit recognition that intellectual activity, like any other human activity, is not static but evolutionary. As obvious as such a notion may seem, it flies in the face of how Islamic thought has generally been conceived. The tendency to treat *kalām* and *falsafa* as unchanging categories is detectable in the works of medieval Muslim doxographers, writers who concerned themselves with cataloguing the many different Muslim schools and sects. And since their works have served for the past two centuries as the primary textual sources for Western scholars of Islamic intellectual history, these supposedly rigid categories have permeated modern scholarship as well. In other words, the Muslim doxographers, and the Western scholars who swallowed their taxonomies of thought, viewed *kalām* and *falsafa* much as a Neoplatonizing Aristotelian philosopher viewed the species we find in the world: as stable and natural, with each possessing a specific *differentia* that could always be relied on to distinguish one species from another of the same genus. Thus a doxographer could distinguish the Muʿtazilī species of *kalām* from the Sunnī species of *kalām* by appealing to the fact that the Muʿtazilīs had always held (and presumably always will hold) that the Quran was created; the Sunnīs, by contrast, held that the Quran was uncreated.[37] (Their position on human free will was also used as a distinguishing feature, with the Muʿtazilīs tending towards greater human autonomy and the Sunnīs tending towards less.) The Shīʿīs could then be differentiated from the Sunnīs by appealing to the fact that the Shīʿīs held

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[35] Ibn Khaldūn, *Kitāb al-ʿibar*, ed. 1961, I: 837.2–4; cf. I: 836.6–8 and, more generally, I: 921.8–923.12.

[36] Recent work on this synthesis and on the relationship between *kalām* and *falsafa* include Jean Michot, "La pandémie avicennienne," *Arabica* 40 (1993) 287–344; Frank Griffel, "Al-Ghazālī's Concept of Prophecy: The Introduction of Avicennan Psychology into Ashʿarite Theology," *Arabic Sciences and Philosophy* 14 (2004) 101–44; Robert Wisnovsky, "One Aspect of the Avicennian Turn in Sunnī Theology," *Arabic Sciences and Philosophy* 14 (2004) 65–100, and "Avicenna and the Avicennian Tradition," in P. Adamson and R. Taylor (eds.) *The Cambridge Companion to Arabic Philosophy* (Cambridge: Cambridge University Press, 2005) 92–136.

[37] The best concise discussion of this debate remains Wilferd Madelung, "The Origins of the Controversy Concerning the Creation of the Koran," in J. M. Barral (ed.) *Orientalia Hispanica sive studia F.M. Pareja octogenario dicata* (Leiden: Brill, 1974) 504–25. For a more detailed philosophical survey see Harry A. Wolfson, *The Philosophy of the Kalam* (Cambridge, MA: Harvard University Press, 1976) pp. 235–303. The most up-to-date and comprehensive discussion is now Josef van Ess, *Theologie und Gesellschaft im 2. und 3. Jahrhundert Hidschra: eine Geschichte des religiosen Denkens im fruhen Islam* (Berlin: De Gruyter, 1991–97) IV: 179–227 and 625–30 (analysis), and VI: 402–27 (translations).

that the imamate, or religio-political leadership of the Muslim community, had passed directly from Muhammad to his cousin and son-in-law ʿAlī following the Prophet's death in 632. The Sunnīs, by contrast, believed that ʿAlī's claim to leadership reflected the historical order in which the Rightly Guided Caliphs actually succeeded the Prophet. (The Muʿtazilites held varying positions on the imamate, with some leaning toward the Sunnī position and others toward the Shīʿīs.)

As is the case in the Neoplatonists' natural world, each of these three great species of *kalām* – the Muʿtazilīs, the Sunnīs, and the Shīʿīs – can in its turn be construed as a genus containing species. The genus of Muʿtazilism comprised two main species, the Baghdādīs and the Baṣrans, differentiated by the doxographers on the basis of the answers each sect gave to the question, "Is God under an obligation to do what is best (*al-aṣlaḥ*) for his creatures?" The Baghdādīs answered yes and the Baṣrans no. The Sunnī genus itself comprised the species Ashʿarism, Māturīdism and Ḥanbalism. The Ashʿarīs and the Māturīdīs were differentiated from each other by their position on the divine attributes. Attributes such as "creating" and "providing sustenance," which necessarily implied the existence of creatures, were labeled by the *mutakallimūn* (the practitioners of *kalām*) "attributes of action" (*ṣifāt al-fiʿl*); these attributes were distinct from God's "attributes of self" (*ṣifāt al-dhāt* or *ṣifāt al-nafs*), such as "knowing" and "being powerful", which did not necessarily imply the existence of creatures. The Ashʿarīs held that while God's attributes of self were eternal, God's attributes of action came into existence at the moment of creation; to maintain otherwise could imply that creatures – the objects of those attributes of action – were similarly eternal, which is untenable. The Māturīdīs, by contrast, held that God's attributes of action were eternal just as God's attributes of self were; to maintain otherwise could imply that God underwent change at the moment of creation, which is untenable. Standing aloof from their Sunnī colleagues, the Ḥanbalīs would in fact have regarded themselves as *muḥaddithūn* – scholars of Hadith, the transmitted accounts of the Prophet Muhammad's words and deeds – and not as *mutakallimūn*. Nevertheless, many Ḥanbalīs were actively engaged in debates over central issues in *kalām*. In particular, the Ḥanbalīs held that they alone were the true "upholders of the divine attributes." This is because the Ḥanbalīs insisted on a literal understanding of Quranic references to divine actions such as God's rising up on his throne, actions that the more rationalist Ashʿarīs and Māturīdīs held were understandable only through allegorical interpretation. Similarly, the Shīʿīs can be seen as a genus of *kalām* comprising the species Zaydīs (or "Fivers"), Ismāʿīlīs (or "Seveners") and Ithnā-ʿAsharīs ("Twelvers"), each distinguished from the other by the essential differentiating characteristic of which particular imam or descendant of ʿAlī – the fifth, the

seventh, or the twelfth – they believed went into a state of occultation until the end times, when that imam will reappear on earth as the Mahdī.

This taxonomic approach rests on the assumption that any given species of thought is stable over time and can reliably be differentiated from another species of thought by appealing to its essential doctrinal characteristic. The problem here is that these different schools of *kalām* underwent major evolutions during the twelve centuries of classical and post-classical Islamic intellectual history. Although the Muʿtazilīs in most respects ceased to exist as a school after the thirteenth century, some key Muʿtazilī doctrines were taken over by the Ithnā-ʿAsharī Shīʿīs and others were taken over by the Zaydī Shīʿīs. The Ashʿarīs and the Māturīdīs, two Sunnī schools of *kalām*, themselves underwent a period of synthesis in the fourteenth century, with the result that prominent Ashʿarī *mutakallimūn* such as al-Taftāzānī took over the Māturīdī doctrine of the eternality of the divine attributes of action.[38]

What about the larger distinction between the genus *kalām* and the genus *falsafa*? As was the case with the different *kalām* schools, whose members sometimes advanced the taxonomies of the doxographers for the rhetorical purpose of hardening their own school's sense of identity, so too did the *mutakallimūn* and the *falāsifa* often promote the idea that *kalām* and *falsafa* were irreducibly distinct. There were certainly doctrinal differences between the *mutakallimūn* and the *falāsifa*, the most comprehensive of which was the *mutakallimūn*'s adherence to the atomistic doctrine that the universe was composed of tiny, discontinuous parts, in contrast to the *falāsifa*'s Aristotelian belief in the continuity of matter and their rejection of the void – that is, the empty "space" between the *mutakallimūn*'s atoms. Not even this distinction was watertight, however, since the ninth-century Muʿtazilī *mutakallim* al-Naẓẓām did not hold an atomistic worldview, while the slightly later *faylasūf* and doctor Abū Bakr al-Rāzī did. Even if it were watertight, this doctrinal difference is in itself not sufficient to justify calling *kalām* "theology" and *falsafa* "philosophy."[39] If that were the case, a number of important ancient thinkers – Leucippus, Democritus, Epicurus and their followers – would similarly have to be labeled theologians rather than philosophers. What about the three crucial doctrines of the *falāsifa* that, according to the Ashʿarī *mutakallim* al-Ghazālī in his *Incoherence of the Philosophers* (*Tahāfut al-falāsifa*), warranted an accusation of unbelief (*takfīr*): their belief in the world's co-eternity with God, their denial of God's knowledge of particular

[38] Al-Taftāzānī, *Sharḥ al-ʿaqāʾid al-nasafiyya* (*Commentary on Nasafi's Creed*), ed. 1916, pp. 308.3–324.10 (top-inside box); tr. Elder, pp. 67–73.

[39] On this now see A. I. Sabra, "*Kalām* Atomism as an Alternative Philosophy to Hellenizing *falsafa*," in J. Montgomery (ed.) *Arabic Theology, Arabic Philosophy: From the Many to the One: Essays in Celebration of Richard M. Frank* (Leuven: Peeters, 2006) 199–272.

things and their denial of bodily resurrection?[40] Surely these doctrines of the *falāsifa* were stable enough to provide the kind of perpetual differentiating characteristic the doxographers were searching for. Yet two centuries earlier we find al-Kindī, the first great Muslim *faylasūf*, promoting the world's createdness-in-time, and in the fourteenth century we find the Ḥanbalī thinker Ibn Taymiyya advocating a version of the co-eternity position.[41] And in the fifteenth century, we find the Ashʿarī *mutakallim* al-Dawwānī advocating a nuanced and sympathetic reading of Avicenna's denial of bodily resurrection and the doctrine that God knows particulars in a general way.[42] Although it is true that some doxographers allowed for a distinction between earlier generations (*ṭabaqāt*) of a school and later generations, the doctrinal *differentiae* they relied on made their taxonomies hopelessly brittle.

By contrast, the *falāsifa* themselves suggested an epistemological rather than a doctrinal basis on which to draw the distinction between themselves and the *mutakallimūn*: while the *falāsifa* employed demonstrative syllogisms – that is, syllogisms that produce a scientific understanding of a thing – in their discussions, the *mutakallimūn* employed only dialectic, and in particular dialectic that employed theorems specific to the Islamic religion and which thus produced conclusions without universal applicability[43] (see Chapter 26). But this too is a mischaracterization of the difference between *falsafa* and *kalām*. For whatever the *falāsifa* may have said about the role of demonstration in their epistemology, the fact remains that in much if not most of their work it is dialectical methods rather than demonstrative syllogistic that they use. In this respect the *falāsifa* were in fact following Aristotle, who himself employed dialectic widely, often starting his investigations by listing puzzles (*aporiai*), for example, rather than starting from the necessarily true first principles required in demonstrative syllogisms. Indeed the role of dialectic in arriving at those same first principles appears to have been a crucial element of Aristotelian epistemology. For better or worse dialectic was the primary mode of argumentation in Islamic thought just as it was

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[40] Al-Ghazālī, *Tahāfut al-falāsifa*, *passim*.

[41] On Ibn Taymiyya's criticism of the Ashʿarīs, which verges on an advocacy of the eternity of the world construed as an infinite series of temporally originated events, and on his appropriation of Avicennian cosmological positions, see Jon Hoover, "Perpetual Creativity in the Perfection of God: Ibn Taymiyya's Hadith Commentary on God's Creation of the World," *Journal of Islamic Studies* 15 (2004) 287–329, and "Ibn Taymiyya as an Avicennan Theologian: A Muslim Approach to God's Self-Sufficiency," *Theological Review* 27 (2006) 34–46.

[42] Specifically, in his *Sharḥ al-ʿaqīdat al-ʿAḍudiyya* (Commentary on al-Ījī's Creed), ed. in S. Dunyā, *Al-Shaykh Muḥammad ʿAbduh bayna al-falāsifa wa-al-kalāmiyyīn* (Cairo: ʿĪsa al-Bābī al-Ḥalabī, 1958) pp. 339ff. and 606ff.

[43] This position is set out in Dimitri Gutas, "The Logic of Theology (*kalām*) in Avicenna," in D. Perler and U. Rudolph (eds.) *Logik und Theologie: das Organon im arabischen und im lateinischen Mittelalter* (Leiden: Brill, 2005) 59–72.

in Aristotelian thought, as Aristotle scholars have begun recognizing since the 1960s.[44] Similarly, the entire post-classical Islamic discipline of "ground-rules of research" (*ādāb al-baḥth*) presupposes the universal applicability of dialectic. A major work of this discipline, by al-Samarqandī, contains case-studies of dialectic's applicability not just to classic problems of *kalām* and Islamic law (*fiqh*), but also to those of *falsafa* – although *falsafa* is now referred to by the less foreign-sounding *ḥikma*, the Arabic translation of the Greek *sophia*.[45] The most that could be said in this regard is perhaps that the *mutakallimūn* and the *falāsifa* appropriated different goals from the ideals of the exact sciences. With the *falāsifa*, what was taken from the exact sciences was the ideal of mathematical proof, the kind of proof that exhibited necessity both in the premises of an argument and in the way the conclusion inexorably emerged from those necessary premises. With the *mutakallimūn*, it was the idea of precision: just as the mathematical astronomers aimed at greater and greater precision in their models, so too the *mutakallimūn* aimed at greater and greater precision in the dogmatic formulas they painstakingly constructed. Nevertheless, both *mutakallimūn* and *falāsifa* shared the goal of achieving a state of impregnability in their arguments.

So much for doctrines and epistemology; could the subject matter of *falsafa* and *kalām* serve to distinguish the two? There was doubtless a set of problems specific to the Islamic religion, problems that works of *kalām* normally included but which did not find a home in *falsafa* books, such as the question of whether or not a dead sinner feels pain in the grave (in anticipation of the punishments that will follow the Day of Judgment). And yet the *falāsifa* and the *mutakallimūn* shared so many core interests, including logic and philosophy of language, general metaphysics (i.e. ontology) and special metaphysics (i.e. theology), natural philosophy and cosmology, philosophy of mind, and epistemology, that the non-overlapping topics such as punishment in the grave appear quite marginal.

Even the periodization that Ibn Khaldūn mentioned above – the modern (*al-mutaʾakhkhirūn*, lit. "those who come later") Muslim thinkers as opposed to the classical (*al-mutaqaddimūn*, lit. "those who come before") Muslim

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[44] The classic articulation of this corrective to the medieval view that demonstration lay at the heart of Aristotelian epistemology is G. E. L. Owen, "*Tithenai ta phainomena*," in J. Barnes *et al*. (eds.) *Articles on Aristotle*, vol. I: *Science* (London: Duckworth, 1975) 113–26.

[45] See L. B. Miller, "Islamic Disputation Theory: A Study of the Development of Dialectic in Islam from the Tenth through Fourteenth Centuries" (Ph.D. dissertation: Princeton University, 1984) pp. 234–5; for a list of commentaries on al-Samarqandī's work, see Robert Wisnovsky, "The Nature and Scope of Arabic Philosophical Commentary in Post-Classical (*ca.* 1100–1900 AD) Islamic Intellectual History: Some Preliminary Observations," in P. Adamson *et al*. (eds.) *Philosophy, Science and Exegesis in Greek, Arabic and Latin Commentaries* (London: Institute of Classical Studies, University of London, 2004) II: 169–70.

thinkers − was itself an unstable distinction that various writers applied dif-
ferently across disciplines. Avicenna, for instance, whom we regard as a classical
Muslim thinker, often used the term 'moderns' to refer to himself and his
philosophical contemporaries and thereby distinguish them from their ancient
and late antique Greek forebears such as Plato, Aristotle, Alexander of Aphro-
disias, and John Philoponus, who were called the "ancients."[46] The Muʿtazilīs
themselves distinguished between the founding generations of their school
(*al-qudamāʾ* or *al-salaf min aṣḥābinā*) in the eighth and ninth centuries and sub-
sequent generations. The distinction between ancients and moderns was also
standard in medieval Arabic literature, with the sinewy power of classical pre-
Islamic and early Islamic Arab poetry (late sixth to the mid-eighth century)
contrasted with the effete and ornate new poetry of the Abbasid period (late
eighth to tenth century).[47]

Actors' categories and historians' categories

Given all these counterexamples, which make hard distinctions between species
of Islamic thought impossible to maintain, what can we say in general about
how the intellectual trends that correspond to the Western labels 'philosophy'
and 'theology' played out in the Islamic context? Contemporary historians of
early modern European science are committed to narratives that foreground
"actors' categories": that is, the conceptual scheme in use among the historical
protagonists themselves. But are the actors' categories employed by the Muslim
doxographers so hopelessly embedded in rigid Neoplatonic and Aristotelian
notions of what it means to be a species that they are useless to us when we try
to describe a dynamic intellectual scene? It may well be true that the categories
philosophy and *theology*, which arose and were deployed in a specific medieval
European institutional context, cannot be imported and applied directly to
falsafa (or its later version, *ḥikma*) and *kalām*.[48] It may also be true that the
firm boundaries drawn by the doxographers and by the thinkers themselves −
boundaries drawn on the basis of doctrine, epistemology, subject matter, and
periodization − turn out to be so tenuous that the various strands of Islamic

[46] See, e.g., *Kitāb al-shifāʾ/Ilāhiyyāt (2)*, ed. Mūsā *et al.*, p. 399.10 (= *Liber de philosophia prima sive scientia divina V-X*, ed. Van Riet, pp. 472.57–473.58).
[47] See Daniel Gimaret, "Muʿtazila," in P. Bearman *et al.* (eds.) *Encyclopaedia of Islam*, new edn (Leiden: Brill, 1993) VII: 783–93, and G. J. H. van Gelder, "Ancients and Moderns," in G. Krämer *et al.* (eds.) *Encyclopaedia of Islam*, 3rd edn (Leiden: Brill Online, 2008).
[48] For an interesting recent discussion of how an analogous Western distinction came to be imported into and naturalized in the Japanese context, see G. C. Godart, "'Philosophy' or 'Religion'? The Confrontation with Foreign Categories in Late Nineteenth-Century Japan," *Journal of the History of Ideas* 69 (2008) 71–91.

thought can be said to be intertwined in an irreducibly complex way. But this in itself does not mean that historians should resist foregrounding all such actors' categories when analyzing Islamic intellectual history.

Instead, we can apply the overarching distinction that was favored by the majority of Muslim thinkers themselves: that between knowledge that arises from the "intellect" (*ʿaql*) and knowledge that arises from "transmission" (*naql*, sometimes referred to as *samʿ*, meaning *audition* or *hearing* – that is, hearing a report from someone else). This distinction referred at its most basic level to the two different ways that Muslim scholars and thinkers understood how one arrives at the truth with certainty. For those tending towards an intellectualist, *ʿaqlī*, position, truth was construed rationalistically, as a function of logical validity, as the product of sound argumentation – argumentation that started with axioms or from generally accepted opinions and proceeded according to the rules of syllogistic or dialectic towards a necessary conclusion. By contrast, those tending towards a transmission-based, *naqlī*, position, saw truth historiographically, as a function of the truthfulness of individuals, as the product of sound chains of trustworthy transmitters who could be verified, through historical research, as having been at the right age in the right place at the right time, and having been in possession of a sufficiently upright character to pass along accurately the utterance each had received from his predecessor in the chain – a chain that passed through the Prophet's Companions (*al-ṣaḥāba*), whose righteousness was very great, and stretched ultimately to the Prophet Muhammad himself, whose truthfulness is unimpeachable. These two actors' categories, *ʿaql* and *naql*, are elastic enough to contain both *falsafa* and *kalām* in the category of "rational sciences" (*al-ʿulūm al-ʿaqliyya*), and thus be useful to the historian of Islamic thought. In other words, the hard distinction between *falsafa* and *kalām* should be set aside as a rhetorical artifact of the multiple processes of school formation that occurred in Islamic intellectual history, and replaced by the larger distinction between *ʿaql* and *naql*. With *falsafa* and *kalām* both included in the broad category of rational as opposed to transmitted sciences, the historian of Islamic thought can give proper attention to the common set of conceptual tools employed by both the *falāsifa* and the *mutakallimūn*, and avoid falling into the trap of assuming that the differences between a *faylasūf* and a *mutakallim* will necessarily override their similarities.

Having said all this, many Muslim thinkers regarded even these two distinct ways of viewing the truth – *ʿaql* and *naql* – as complementary rather than in competition, and they would employ *ʿaqlī* and *naqlī* methods alternately, sometimes arguing and other times citing authority, depending on their audience and opponent. Even the Ḥanbalī theologian and jurisprudent Ibn Taymiyya, whom the Wahhābīs of the modern era regard as their intellectual grandfather,

was extremely well read in *falsafa* and *kalām*, and composed a long work entitled *Rejecting the "Contradiction" between Intellect and Transmission (Darʾ taʿāruḍ al-ʿaql wa-al-naql)*.

Coming back to Ibn Khaldūn's statement, what then can be said about the relationship between philosophy and theology in the Islamic context? To start with, it is obvious that *falsafa* cannot be reduced to "philosophy" and *kalām* to "theology." There were many texts and sections of texts written by the *falāsifa* (as was the case with Aristotle himself) that they themselves labeled as theology (*ilāhiyyāt*, lit. "divine matters"), and which treated not only traditional topics in metaphysics such as ontology and causality, but also the nature of God and the relation between the divine self and the divine attributes, the question of determinism, and so on. Similarly, the *mutakallimūn* squarely addressed issues that are usually labeled philosophical: the primary components of matter, the different types of existence, and so on. Furthermore, in discussing these topics the *falāsifa* and the *mutakallimūn* shared and traded technical vocabulary, concepts, examples, distinctions, and arguments. So although *falsafa* and *kalām* were not co-extensive – although there were topics and terms and distinctions and arguments that were unique to one or the other group – they largely overlapped and were both contained within the larger *ʿaqlī* tradition in Islamic thought. Apart from their admittedly real differences, part of what has made *falsafa* and *kalām* appear to be distinct enterprises has been our own scholarly tendency to reproduce the doxographers' taxonomies. Another significant factor has been our tendency to focus on the earliest period of Islamic intellectual history – the "classical" period between 700 and 1050 – during which time *falsafa* and *kalām* overlapped the least, and then to assume that this classical distinctiveness expresses something natural in Islamic intellectual history. In other words, the classical period is viewed as the model Islamic disciplinary arrangement, with subsequent developments seen as pale reflections or decadent versions of the pristine, "true" relationship between *falsafa* and *kalām*. More historically justifiable would be to determine the nature of the relationship between *falsafa* and *kalām* on the basis of evidence contained in texts produced during the longest segment of Islamic intellectual history. In the broader context of Islamic thought, where the 850-year span between 1050 and 1900 is taken as the defining period, rather than the classical era that preceded it or the era of European-style modernity that followed it, *falsafa* and *kalām* come across as a single hybrid enterprise.

FAITH AND REASON

WILLIAM E. MANN

The epistemology of religious belief, a central topic among medieval philosophers, shows no signs of disappearing from the public's consciousness or the philosophers' agenda. The reason why is not hard to find. Large-scale advances in science, rightly heralded as triumphs of reason, have been alleged to have implications for the rationality of religious faith: one need only think of the development of evolutionary biology in the past 150 years and of physical cosmology in the past fifty. Of course, the medieval philosophers knew nothing of evolutionary biology. And although they speculated about one big issue in physical cosmology – whether the world was created or has existed forever – their speculations were shaped not by experimental evidence but by Scripture and Aristotelian science. Nevertheless, it does not follow that medieval debates about faith and reason have been superseded. It may well be that contemporary debates on the relation between faith and reason would benefit from a fresh examination of medieval discussions.

PRELIMINARIES

A few preliminary, terminological remarks are in order, first about reason, then about faith. First, in theological contexts, reason is sometimes contrasted with divine revelation, especially when revelation is restricted in its application to doctrines alleged to be beyond the powers of human reason. There is a more expansive conception of reason according to which reason can discover on its own some items of revelation, but this chapter will exclude discussion of that possibility. Second, reason is sometimes distinguished from understanding. Reason, it is said, is discursive while understanding is intuitive. Reason is a capacity to construct, follow, and analyze arguments and hypotheses, whereas a person who has *understanding* of a particular topic grasps the topic immediately with no need (or, at least, no need any longer) to employ reason. Understanding occupies a Janus-like position with respect to reason: it can be either the

foundation for reasoning or the *consequence* of reasoning. Viewed as foundational, understanding is claimed to apprehend truths so pellucid that simply to entertain them is to see that they are true. Reason is then supposed to perform legitimate operations on these basic truths in order to generate further, non-basic truths. Viewed as consequential, understanding is the result of an exercise of reason – perhaps based on items previously understood. Third, although it is tempting to regard scientific inquiry as the paradigm of reason at work,[1] it is also the function of reason to construct, criticize, and defend arguments in theology and philosophy.

   Two final remarks apply to faith. First, 'faith' sometimes refers to an act (or state) and sometimes to the contents or objects of that act. One might ask what sort of state faith is; for example, is it a kind of belief? One might also inquire about what the proper articles of faith are. Second, intentional attitudes such as understanding and faith (especially if faith is construed as a kind of belief) tolerate both objectual and propositional complements. One can believe Jones or believe that Jones is laconic; one can understand horses or understand that this horse is spavined. It is a fine question whether objectual constructions can always be analyzed in terms of propositional ones. Thomas Aquinas certainly thought so. Responding to the observation that the Apostles' Creed begins with the objectual "I believe in God Almighty," Aquinas holds that although the object of faith, God, is a being, apprehension of this being by the human intellect is necessarily by means of propositional complexes. Analogous remarks hold for scientific understanding, as Aquinas understands it; its objects are things in the world about which our knowledge is propositional (*Summa theol.* 2a2ae 1.2 ad 2).

   This chapter supposes that both faith and reason are propositional, if only because to suppose otherwise makes it hard to see what tensions there are between them. And tensions there have been. It will help in identifying some of them if we focus on the following collection of propositions. First, here are four accepted by adherents to various religious traditions:

God's existence. God exists.
God's attributes. All of God's essential attributes – omniscience, omnipotence, goodness, and the like – are perfections.
Creator. God created the world.
Love. We are morally obligated to love God and to love our neighbors as we love ourselves.

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[1] For a robust example, see Edward Grant, *God and Reason in the Middle Ages* (Cambridge: Cambridge University Press, 2001).

Next, here are three that have special significance for Christians:

Trinity. God is three persons in one substance.
Incarnation. At one time, Christ – the second person of the Trinity – became a man while remaining divine.
Embodiment. God cannot become a donkey, or a stone, or wood.

Finally, here are three more that had considerable philosophical authority, but that came to seem problematic in various contexts:

Past. It is impossible to change the past.
Accidents. No (instance of an) accidental property can exist without inhering in a substance.
Eternal world. The world had no beginning.

With the content of these propositions in mind, we can now turn to various views about the nature of faith and reason.

DAMIAN AND ANSELM

The eleventh century provides us with two distinctive Christian contributors to the debate about faith and reason: Peter Damian and Anselm of Canterbury. Because they flourished before the transmission into northern Europe of Aristotle's major works, they present two views that do not yet reflect the tensions that surface in the thirteenth century over the relation between Aristotelian science and revelation.

At first blush, Damian appears to be a champion of anti-intellectualism regarding matters of faith. Throughout much of his Letter 119 ("On Divine Omnipotence") he rails against dialecticians and rhetoricians who apply the tools of their trade thoughtlessly to theological matters: in the case at hand, questions dealing with God's omnipotence. He does allow for a proper use of these tools in the study of Scripture, however, so long as both the tools and the practitioners who wield them remain subservient to the text (tr. Blum, p. 356). Abuse can occur in at least two different ways. First, a person can interpret a text uncharitably. Someone might thus take the angel's exhortation to Lot, "Hurry, escape there, for I can do nothing until you arrive there" (Gen. 19:22), as evidence of a limitation on God's power (ibid., p. 346). Second, the tools themselves are sometimes inadequate. If the canons of grammar and rhetoric conflict with an item of faith, then so much the worse for the canons. Damian supplies an example of how such a conflict must be resolved. It might seem as though **Past** conflicts with the claim that God is omnipotent, if what is past is beyond

God's control. Contrary to how he is sometimes understood, Damian resolves the apparent conflict not by maintaining that God's omnipotence transcends the laws of logic, but by claiming that events that are past to us are not past to God's eternal mode of existence, in which all events, past, present, and future (relative to us), are equally present to God (ibid., pp. 381–2). Damian's point can be illustrated by contrasting two sentences:

(1) Romulus can still cause Rome, which was founded, never to have been founded.
(2) God can still cause Rome, which was founded, never to have been founded.

(1) is absurd, perhaps contradictory. But Damian regards (2) as true without supposing that God can flout the principle of non-contradiction. Understood properly, (2) is equivalent to

(2′) God can still (in his eternal present) cause Rome, which was founded (relative to the passage of human time), never to have been founded (in human time).

While Damian is willing to find a place for reason in the servants' quarters, Anselm welcomes reason into the salon. Anselm's writings display a seemingly boundless optimism about the powers of reason to achieve understanding about the content of faith. He thus provides arguments for the rational necessity of **God's existence** (most famously in *Proslogion* 2–3), **God's attributes** (see especially the strategy developed in *Monologion* 15), **Creator** (*Monol.* 7–9), **Incarnation** (*Cur Deus Homo*), and **Trinity** (*Monol.* 29–65).[2] At the same time, Anselm insists that faith precedes understanding – that is, that he would not understand these propositions unless he believed them (*Prosl.* 1). There are two questions to be asked of Anselm's position. First, does it imply that faith has only instrumental value, motivating the believer to strive for understanding, but superseded by that understanding once it has been achieved? Second, does Anselm think that all five propositions are equally amenable to reason?

In his consignment of *Cur Deus Homo* to Pope Urban II, Anselm says that the understanding that we grasp in this life stands between faith and (revelatory) vision, and that the more progress we make in understanding, the closer we get to that supremely desired vision. This passage does not entail that faith has only instrumental value, but it is tempting to conclude that it assigns greater value to understanding. Before succumbing to that temptation, however, we should examine chapter 1 of *On the Incarnation of the Word*. Here Anselm inveighs against people who try to employ their faculty of understanding in the investigation of religious matters without first having an adequate grounding in faith. They run the risk of declaring as impossible – because unintelligible to them – something that is indeed possible, something whose possibility they would have been

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[2] For **Trinity**, see also *On the Incarnation of the Word* and *On the Procession of the Holy Spirit*.

motivated to discover had they antecedently had sufficient faith. In an arresting simile, Anselm compares them to bats and owls, who only see the heavens at night, disputing with eagles about the midday sun.[3] Such people are susceptible to two other infirmities. First, without faith they will be unable to interpret experience in the way that the person of faith is able; they will thus fail to understand the higher religious truths conveyed by that interpretation. Second, because they lack sufficient faith, the deliverances of their understanding are apt to be unstable, resulting in the subversion of what faith they might have had.

The following can be said on Anselm's behalf. Someone who holds true beliefs about religious matters and who has subsequently come to understand cogent arguments for those beliefs is in a state that is cognitively more responsible than and superior to the state of someone whose religious beliefs, even though true, are held without the appropriate understanding. The contrast here is between foundational and consequential understanding, where foundational understanding may approximate the sort of noetic certainty that Anselm ascribes to vision. At the same time, Anselm emphasizes that the faculty of understanding – that is, the human intellectual capacity – can go astray in the ways that Anselm has delineated, if it is not "cleansed" by faith (*Incarnation* 1).

Anselm clearly regards **God's existence** and **God's attributes** as demonstrable necessary truths. He takes the key to demonstrating **God's existence** to be the notion of "that than which nothing greater can be conceived." This notion also helps to establish **God's attributes**, aided by the principle that for any property *P* such that *P* is better without qualification than not-*P*, God possesses *P* (see Chapter 54). **Trinity** is also a necessary truth, by Anselm's lights, but he regards our epistemological situation with respect to it as somewhat different. Given that **Creator** is true, Anselm argues that we should expect to find (necessarily imperfect) images of his triune nature in his creation. At the same time, he takes pains to insist that though the images that he has adduced are true to the thing imaged, it cannot be explained how this is so; the nature of the Trinity is ineffable (*Monol.* 64–6).

When Anselm discusses God's activity as creator, he devotes his energies to trying to make sense of creation *ex nihilo*. If, like pseudo-Dionysius, he thought that God's creating something was a necessary consequence of God's nature, he is remarkably silent about it. One may suppose, then, that for Anselm, **Creator** is only contingently true. He must in any event regard **Incarnation** as contingently true: that God became a man is a response, ultimately, to the freely chosen, contingent fall of Adam and Eve. But if **Creator** and **Incarnation** are contingently true, they cannot be demonstrated with the same sort of rigor

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[3] Recall the similar strategy deployed by Damian regarding **Past**.

exemplified in the proofs of **God's existence** and **God's attributes**. Anselm seems to be fully aware of this point. In *Cur Deus Homo* I.10 he invokes two principles – one methodological, one modal – that prove particularly applicable to **Incarnation**:

(3) (a) One should accept no proposition concerning God if it entails any inappropriateness, no matter how slight, on God's part, and (b) one should not reject any proposition concerning God unless it conflicts with some more reasonable proposition.

(4) (a) Any proposition entailing anything inappropriate concerning God entails an impossibility, and (b) any proposition concerning God is necessary unless it is contradicted by a more reasonable proposition.

Setting aside concerns about how to interpret "inappropriateness," we might allow Anselm (3a) and (4a). (3b) and (4b) call out for explanation. Notice, however, that (3b) does not necessarily advocate *acceptance* of just any proposition concerning God that is not contradicted by a more reasonable proposition. Suppose, for example, that neither 'God created an odd number of stars' nor 'God created an even number of stars' is contradicted by any proposition we have more reason to believe. In cases like this, Anselm may have thought that what (3b) counsels is suspension of judgment about the number of stars. Interpreted generously, (4b) is an inchoate imputation to God of a Principle of Sufficient Reason, supplemented by the assumption that it is never reasonable to do what is suboptimal when one can do what is optimal. That is, God, *qua* supremely rational being, does only what is rationally the best, what cannot be defeated by a more rational alternative course of action. (4b) understood in this way coheres with and helps to further the project of *Cur Deus Homo*, namely, to show that Incarnation represents the best divine solution to a calamity brought about by humankind. Readers expecting to find a precocious Leibniz in Anselm, however, will be disappointed to find that he does nothing more to articulate or apply (4b).

Anselm appears to invoke (3a) and (3b) in defense of the *pro tanto* reasonableness of his account, in *Cur Deus Homo*, of why God became a man. So far as he knows, the account imputes no inappropriateness to God, and so does not violate (3a). In addition, to the best of his knowledge, his account does not conflict with any propositions more reasonable than the propositions that constitute his account, and so it satisfies (3b).

Nevertheless, Anselm acknowledges that his account could be mistaken. Because it involves a contingent truth, he regards his explanation of why **Incarnation** is true as epistemically vulnerable in a way in which, for instance, his proof of **God's existence** is not.

AQUINAS

By the second half of the thirteenth century, the major works of Aristotle were exerting enormous influence, not all of it welcome, on arts and theology masters teaching in the European universities. Thomas Aquinas retrofitted much of Aristotle's conceptual framework to serve Christian philosophical theology, while recognizing that some of the content of Aristotelian thought is in tension with that theology. After sketching Aquinas's views on the nature of faith and reason, I will examine two cases in which Aquinas appeals to the content of faith to modify – some might even say reject – Aristotelian doctrines.

One way to approach Aquinas's views on faith and reason is to examine some of the salient texts he cites as authoritative. Three are especially worthy of note: one from Aristotle, one from Augustine, one from Scripture.[4] Aristotle had characterized a virtue as a "state of character that makes a person good and enables him to perform his own work well" (*Nic. Ethics* II.6, 1106a22–5). Aquinas classifies faith along with hope and charity as virtues in this generic Aristotelian sense. But faith cannot be fitted into Aristotle's dichotomy of intellectual and moral virtues. These help human beings attain the sort of happiness that can be found in the natural world; they are acquired by natural means. Aristotle had said that intellectual virtues, such as understanding, are developed by education; moral virtues like courage are acquired by habituation. Faith and the other "theological virtues," in contrast, which are necessary for humans to achieve their supernatural happiness – a kind of participation in the Godhead – cannot be acquired naturally. These virtues are "infused" into a person by an act of divine grace (see Chapters 32 and 36).

In order to pin down Aquinas's notion of faith we need to have a characterization of *belief*. Aquinas endorses the Augustinian claim that "to believe is to think with assent."[5] Belief in a proposition, *p*, fits into a family of cognitive states that can be differentiated one from another depending on the strength of conviction the agent has regarding *p*. To doubt that *p*, for example, is to waver between *p* and not-*p*; to suspect that *p* is to think that there may be more reason to assent to *p* than to not-*p*; to venture the opinion that *p* is to risk something on *p* while fearing that not-*p* might nonetheless be true. Unlike belief that *p*, doubt, suspicion, and opinion about *p* do not involve intellectual assent, since the agent is not prepared, or is not prepared fully, to regard *p* as true. One way to interpret Aquinas's view is that belief, doubt, and other such states are, like reasoning, species of discursive mental activity. Mindful

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[4] In what follows I shall be drawing for the most part on Aquinas's *Quaest. de veritate* 14 and *Summa theol.* 1a2ae 62.1–2 and 2a2ae qq. 1–4. The three passages are cited in both works.

[5] Augustine*, De praedestinatione sanctorum* 2.

of Augustine's definition, we can call the genus of which they are species "thinking."[6]

The third text is from the Vulgate version of Hebrews 11:1: "faith is the substance of things hoped for, the evidence of things that are not seen." Aquinas's interpretation of this verse depends on a sharp distinction between seeing and believing. Aquinas extends 'seeing' to include both visual perception and intellectual apprehension: when a thing is seen, it causes either the senses or the intellect to have knowledge of it.[7] Contrary to contemporary analyses of knowledge, though, to know a thing – at least by way of seeing it – does not entail believing it. Put more strongly, knowledge by seeing renders belief otiose because knowledge by seeing involves *understanding*, and understanding precludes believing. It is true that, like belief, understanding entails assent. *Immediate* (or foundational) understanding is the assent the intellect gives to self-evident principles. The successful tracing out of entailments from self-evident principles, or *mediate* (consequential) understanding, yields *scientia,* knowledge in the strictest sense (see Chapter 26). Unlike belief, however, understanding precludes discursiveness, and thus understanding precludes believing. Immediate understanding would not be immediate if it involved thinking, and thinking ceases once *scientia* is achieved. Thus because to believe is to *think* with assent, belief cannot coexist with understanding.[8]

Thus, for Aquinas, faith cannot coexist with understanding. Recall that, for Anselm, it is possible for a person to believe a theological proposition on the basis of both faith and understanding, and that believing something on these two bases is preferable to believing it on the basis of faith alone. In contrast, Aquinas denies that any one proposition can be held by the same person at the same time on the bases of both faith and understanding. He thus allows that some people can have *scientia* regarding some theological propositions about which others, who are not trained in the rigors of theology, can have only belief. He regards the proposition that God exists, for example, as demonstrable even though the demonstrations may be beyond the intellects of many. For that reason Aquinas does not count this proposition as an article of faith, but rather as a "preamble" to the articles of faith, something that the articles presuppose. The articles of faith themselves are contained in the Nicene Creed; by Aquinas's

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[6] This interpretation makes room for dispositional beliefs and doubts, but maintains that every dispositional belief and doubt has an ancestry in occurrent, discursive mental activity.

[7] One should interpret "thing" here to include propositions.

[8] Aquinas's cordoning off understanding from believing will strike many present-day readers as odd, inasmuch as they are inclined to think that understanding entails knowing and knowing entails believing. Things were not always so, as we can also see from Book V of Plato's *Republic*, where Plato argues for the categorical separation of knowledge from belief.

count, there are fourteen of them. Consider, for example, the proposition affirming the resurrection of the dead and life everlasting. Not even the keenest human intellect finds it to be self-evident or to be deducible from self-evident principles. The intellect is stymied here.

Aquinas's psychological theory relies on a fundamental distinction between the human intellect and the human will. The intellect is aimed at ascertaining the truth, the will at seeking goodness. They are mutually accessible; each can influence the other in various ways. When presented with a proposition about a supernatural good, namely, eternal life in communion with the font of all goodness, the will can induce the intellect to assent or decline. But the presentation itself is cloudy; humans see now "through a glass, darkly." The infused virtue of faith is what enables assent to and perseverance in the proposition. Perseverance includes, among other things, the intellect's continuing to think discursively about what it does not fully understand. Aquinas thus defines faith as "a habit of mind by which eternal life begins in us, making the understanding assent to things that are not seen" (*Summa theol.* 2a2ae 4.1c; *Quaest. de veritate* 14.2c).

One place where faith and reason might seem to clash is where **Creator** meets **Eternal world.** The Nicene Creed begins with the proposition that God is "maker of heaven and earth, of all that is, seen and unseen." Aristotelian physics, in contrast, holds that the physical world never had a beginning (see esp. *De caelo* II.1, 283b26–30). In the second half of the thirteenth century, serious disagreement arose concerning this apparent conflict between religion and science.[9] Bonaventure, for one, sought to demonstrate that the world had a beginning by showing that a beginningless, infinitely old world would entail, among other things, the "absurdity" that if the sun has already revolved around the earth infinitely many times, then an infinitely long series has been completed. Thus tomorrow's revolution cannot be added to the series, since "it is impossible to add to the infinite" (tr. Vollert *et al.*, p. 107). The reasoning here is specious,[10] however, and may have contributed to Aquinas's contrary resolution of this and related issues.

That God created the world was not at dispute. There is, however, according to Aquinas, no demonstration or scientific proof of the claim; if there were, the

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[9] The texts of Thomas Aquinas, Siger of Brabant, and Bonaventure are translated in *On the Eternity of the World*, tr. C. Vollert *et al.* (Milwaukee, WI: Marquette University Press, 1964). See also the texts in Richard C. Dales and Omar Argerami, *Medieval Latin Texts on the Eternity of the World* (Leiden: Brill, 1991).

[10] See Grant, *God and Reason in the Middle Ages*, pp. 237–52, for an analysis of medieval discussions of the so-called paradoxes of the infinite. See, too, Richard Dales, *Medieval Discussions of the Eternity of the World* (Leiden: Brill, 1990).

claim would be out of place as an article of revelation in the Nicene Creed. What Aquinas did dispute was the epistemological status of these propositions:

(5) The world has existed forever.
(6) The world had a beginning.

Neither (5) nor (6) is demonstrable, according to Aquinas. The Aristotelian arguments for (5) fail to recognize that whether anything is everlasting depends on God's will, which is the cause of all things and which is beyond human investigation. Bonaventure's arguments to the contrary notwithstanding, however, there is no contradiction in maintaining that (6) is false, for an eternal God could have created an everlasting world. Scripture, however, favors (6), and so Aquinas accepts it on the basis of faith, not demonstration. In a rare display of agitation, he concludes his argument for the indemonstrability of (6) by pointing out that to offer unsound arguments in favor of (6) is to hand unbelievers material for ridiculing believers (*Summa theol.* 1a 46.2, tr. Vollert *et al.*, p. 66). (See Chapter 17 for further discussion of the eternity of the world.)

Another place where faith and reason meet, for Christians, is in the sacrament of the Eucharist. Aquinas articulates and defends the doctrine of transubstantiation, which maintains that in the consecration, the whole substance of the bread and wine is converted into the body and blood of Christ, leaving behind only the "accidents" or sensory qualities of the bread and wine. The account that Aquinas gives thus denies **Accidents**. In Aristotelian metaphysics an accident is "in a subject," that is, it inheres in something, but not as a part of that thing, and it cannot exist separately from that in which it inheres (*Categories* 2, 1a24–5). Despite what Aristotle says, Aquinas argues that God's infinite power can keep the accidents of the bread and wine in existence, inhering in no subject, after their natural and original host substances have ceased to exist. **Accidents** holds at best for what Aquinas calls the order of nature. Faith requires what reasoning based on sensory experience cannot disclose: that the order of nature can be overridden by a special privilege of grace (*Summa theol.* 3a 77.1).

1277 AND BEYOND

In 1277, Stephen Tempier, the bishop of Paris, issued a list of 219 condemned propositions in philosophy and theology, threatening excommunication to anyone who defended or even listened to them (see Chapter 8). Among other things, the condemnation is symptomatic of a worry that the claims of reason, exemplified by Aristotelian philosophy, were misleading believers about the claims of faith. To examine one particular strand, Aristotelian science and metaphysics made claims about what was necessary and what was impossible

that contradicted a robust notion of God's omnipotence. Aquinas's position on the indemonstrability of either **Eternal world** or its negation depends on the claim that there is no contradiction in omnipotent God creating a world that has no beginning. Proposition 147 condemns the belief "that what is simply impossible cannot be brought about by God or any other agent. This is an error if it be understood as 'impossible according to nature.'"[11] It is the nature of fire to burn; it is impossible according to nature that fire not burn. Yet, an omnipotent God could suspend this natural necessity – a necessity that he, after all, had established – in order to save believers cast into Nebuchadnezzar's furnace (Dan. 3). Proposition 147 distinguishes between what is *simply* impossible (the hallmark of which is, presumably, contravention of the principle of non-contradiction), and what is *naturally* impossible. Believers are thereby entitled to accept as revelation the narrative in Daniel by supposing that natural impossibilities are not impossibilities for God.

By Edward Grant's count, at least twenty-seven propositions in the condemnation of 1277 were directed against arguments for an eternal world, and were thus also generally consistent with Aquinas's opinion.[12] Aquinas's articulation of the metaphysics of the Eucharist also did not run afoul of the condemnation, which aimed no fewer than four of its propositions at those who claimed that an accident cannot exist without a subject.[13] It is tempting from a modern perspective to regard these two cases as invoking two different conceptions of possibility. We might say on Aquinas's behalf that it is *physically* possible that the world had no beginning, inasmuch as **Eternal world** is consistent with the laws of physics. In contrast, we might suppose that Aquinas's denial of **Accidents** relies on a notion of *metaphysical* possibility: that while it is physically impossible to separate an accident from its subject, it nonetheless remains metaphysically possible. Proposition 147's distinction between simple and natural impossibility appears to parallel the distinction between metaphysical and physical impossibility.

Grant claims that a (perhaps unintended) consequence of the condemnation is that it encouraged scientific speculation along lines that depart from Aristotelian science, since the only thing that was deemed impossible is something that would violate the principle of non-contradiction.[14] The test for the possibility of a state of affairs was whether it fell within the scope of what omnipotent God can bring about. Aristotle's physics assumed the (natural) impossibility of a vacuum – that

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[11] Henri Denifle and Émile Chatelain (eds.) *Chartularium Universitatis Parisiensis* (Paris: Delalain, 1889–97) I: 552.
[12] Grant, *God and Reason in the Middle Ages*, p. 238.
[13] Denifle and Chatelain, *Chartularium* I: 551 (propositions 138–41).
[14] Grant, *God and Reason in the Middle Ages*, pp. 213–17.

is, a region of physical space containing nothing. For all Bishop Tempier knew, the physical world actually is a vacuumless plenum. But the condemnation of 1277 insisted that it need not have been, condemning the proposition "that God cannot move the heavens in a rectilinear motion, the reason being that he would leave a vacuum."[15] To encourage this latitudinarian speculative tack has implications not only for science, however, but also for faith, inasmuch as it opens the door to a wider range of theological possibilities than Christian theologians had hitherto been willing to contemplate. This is a consequence that William of Ockham and his followers make manifest. Let us look briefly at two examples.

First, suppose that God knows that love tempers the soul, making it more receptive to humankind's ultimate happiness, union with God, a happiness that God desires for us. Then it might seem that a perfectly good God could hardly have failed to prescribe **Love**. Ockham demurs from this conclusion. God could have commanded us to hate him; had he done so, hatred of him would have been obligatory and possibly good. Obligatory, because God's commands are the foundation of obligation. Possibly good because, according to Ockham, the deformity and wickedness of an act of hating God are logically separate from the act itself, and thus can be detached from the act by God (*Reportatio* II.15, ed. *Opera theol*. V: 342). It appears, then, that on Ockham's view, when Scripture commands **Love** (Matt. 22:37–40), it is transmitting a moral mandate that we could not otherwise reliably infer by natural means even if we were in a position to demonstrate by reason that God exists and is perfectly good.

The second example comes from an anonymous work, *Centiloquium*, collected with Ockham's *Dubia et spuria*. Appealing to God's power to do anything the doing of which does not entail a contradiction, the author argues that God could assume the nature of a donkey, or a stone, or wood (*Opera phil*. VII: 384–95). One wonders how Anselm would have reacted to the author's position, which directly contradicts **Embodiment**. A major theme of Anselm's *Cur Deus Homo* is that it was eminently appropriate for Christ to become a man, because the redemption of humanity should be accomplished by a human being. For Christ to have instead assumed the nature of a donkey would have been inappropriate. It might then seem that by Anselm's principle (4a), it would be impossible for God to assume the nature of a donkey. But (4a) does not have that consequence. All that (4a) entitles Anselm to say is that Christ becoming a human being was necessary *for the purpose of human redemption*. That does not preclude the possibility that Christ became both a man and a donkey. Is there disagreement between Anselm and the *Centiloquium* author that centers

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[15] Denifle and Chatelain, *Chartularium* I: 546 (proposition 49).

on Anselm's (4b)? According to (4b), it was necessary, given the self-induced sinful state of humankind, that God assume the nature of a human "unless it is contradicted by a more reasonable proposition." Anselm's claim depends on divine reasonableness: not to become human, under the circumstances, would be inconsistent with God's nature as supremely rational agent. Suppose that the *Centiloquium* author asserts, in the teeth of Anselm's claim, that it is not necessary for God to assume the nature of a human, not even for the purpose of redeeming humankind. The author will base his claim on God's omnipotence, insisting that, inasmuch as there is no violation of the principle of non-contradiction, God could have redeemed humankind in practically any way – for example, by assuming the nature of a donkey. There is at least the appearance of an impasse. Anselm's (4b) supports

(7) God could not have redeemed humankind by assuming the nature of a donkey.

The *Centiloquium* author's appeal to divine omnipotence endorses

(8) God could have redeemed humankind by assuming the nature of a donkey.

If (7) and (8) are jointly contradictory, then it follows that God cannot be both supremely rational and absolutely omnipotent. But perhaps (7) and (8) are not really contradictory. It might be, for example, that different modalities are at play in (7) and (8). We have already seen a distinction between physical and metaphysical impossibility in the condemnation of 1277. The *Centiloquium* author is surely invoking a notion of metaphysical possibility in (8). Anselm could agree with (8) while claiming that the notion of impossibility invoked in (7) alludes to a third kind of modality, something like rational unacceptability. (7) might then be rephrased as

(7′) It would have been inconsistent with God's standards of rational acceptability for him to have redeemed humankind by assuming the nature of a donkey.

(7′) and (8) are not contradictory. But the solution suggested here is conjectural. We must recall that the two protagonists of this philosophical drama are separated by two centuries.

MYSTICISM

CHRISTINA VAN DYKE

Current scholars generally behave as though the medieval traditions of mysticism and philosophy in the Latin West have nothing to do with each other; in large part, this appears to be the result of the common perception that mysticism has as its ultimate goal an ecstatic, selfless union with the divine that intellectual pursuits such as philosophy inhibit rather than support. There are, however, at least two central problems with this assumption.

First, mysticism in the Middle Ages – even just within the Christian tradition[1] – was not a uniform movement with a single goal: it took different forms in different parts of Europe, and those forms changed substantially from the eleventh to the fifteenth century, particularly with the increased emphasis on personal piety and the feminization of religious imagery that emerges in the later centuries.[2] The belief that mysticism entails the rejection or abandonment of reason in order to merge with the divine, for instance, represents only one strain of the medieval tradition. Although this view is explicitly advocated in the Christian West by such influential figures as Meister Eckhart and Marguerite Porete, the prevalent identification of the allegorical figure of Wisdom with Christ provides the grounds for equally prominent figures such as Hildegard of

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[1] In several respects, mysticism played a more integral role in Arabic and Jewish philosophy than in Christian philosophy from late antiquity through the Middle Ages. For reasons of space, and because the importance mysticism assumes in those philosophical traditions has been more widely acknowledged, this chapter focuses exclusively on Christian mysticism. See, however, Aaron Hughes, *The Texture of the Divine: Imagination in Medieval Islamic and Jewish Thought* (Bloomington, IN: Indiana University Press, 2004); David Blumenthal, "On the Intellect and the Rational Soul," *Journal of the History of Philosophy* 15 (1977) 207–11; M. Idel and B. McGinn (eds.) *Mystical Union in Judaism, Christianity, and Islam: An Ecumenical Dialogue* (New York: Continuum, 1999).

[2] For an influential early piece on this trend, see Herbert Grundmann, "Die Frauen und die Literatur im Mittelalter: Ein Beitrag zur Frage nach der Entstehung des Schrifttums in der Volkssprache," *Archiv fur Kulturgeschichte* 26 (1936) 129–61. See also Caroline Walker Bynum, "Jesus as Mother and Abbot as Mother: Some Themes in Twelfth-Century Cistercian Writing," in her *Jesus as Mother: Studies in the Spirituality of the High Middle Ages* (Berkeley: University of California Press, 1982) esp. pp. 129–46.

Bingen, Richard of St. Victor, and Henry Suso to claim that mystical union with God is actually aided by reason.[3]

Second, even when not self-consciously engaged in formal intellectual speculation, mystics often engage issues central to medieval philosophical theology, such as the nature of the Trinity, God's attributes, and the possibility of universal salvation.[4] Rather than dismissing mysticism as irrelevant to the study of medieval philosophy, then, this chapter identifies the two forms of mysticism most prevalent in the Middle Ages from the twelfth to the early fifteenth century – the apophatic and affective traditions – and examines the intersections of those traditions with three topics of medieval philosophical interest: the relative importance of intellect and will, the implications of the Incarnation for attitudes toward the human body and the material world, and the proper relation between contemplation and activity in the good life.[5]

THE NATURE AND PRACTICE OF MEDIEVAL MYSTICISM

Directly contributing to the perception of medieval mysticism as experiential, emotional, individualistic, and anti–intellective – and, hence, as inherently at odds with the highly rationalistic scholastic philosophical tradition – is general confusion over what mysticism is. Indeed, although mystic traditions appear in every major religion throughout the world, there exists surprisingly little consensus about what constitutes either a mystical experience or mysticism in general; the further question of how best to define it has proved to be a highly contentious issue which now has a loaded history.[6] This general problem is further complicated for the particular study of medieval mysticism by the fact that the term 'mysticism' itself is used for the first time only in 1736, whereas the English term 'mystick theology' is first attested in 1639, and the Latin phrase *theologica mystica* is not used to refer to what is now understood as mystic theology

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[3] So, e.g., although Richard of St. Victor held that philosophy separated from theology is "insipid wisdom and unlearned learning," he saw mystic experiences generally as leading to an understanding of the divine that fulfills rather than empties the intellect. See, for instance, his *De Trinitate*.

[4] Julian of Norwich's *Revelations of Love* (*Book of Showings*), for instance, addresses all three of these topics.

[5] There are, of course, also numerous topics of philosophical interest that are also addressed within the mystical tradition but which (in the interests of space) cannot be addressed here, including issues in human identity and moral psychology, the proper analysis of visual perception, and the nature of being.

[6] See the first chapter of Sarah Beckwith's *Christ's Body: Identity, Culture, and Society in Late Medieval Writings* (London: Routledge, 1993) for a history of the charged politics involved in modern attempts to define mysticism.

until the sixteenth century.[7] (The difficulties involved in retroactively applying these labels parallel in many ways those that arise in discussions of whether medieval figures such as Anselm and Thomas Aquinas should be considered philosophers as well as theologians [see Chapter 50].)

In this context, attempting to provide a precise and comprehensive characterization of either mysticism or mystical experiences would be more likely to obscure than to illuminate important points of intersection between medieval mysticism and philosophical theology. Rather than seeking to distinguish exhaustively the true substance of mysticism from its accidents,[8] then, this chapter will adopt a working definition of mysticism in the twelfth through fifteenth century as having as its goal direct and immediate union of the human soul with the divine. As we will see, this attempt to "forge an unmediated relationship with God"[9] can be understood and worked toward in a variety of different ways; still, common to all these attempts seems to be the assumption of a living God and the belief that the ultimate fulfillment of human nature involves a direct relationship with that God that goes beyond the realm of normal earthly experience and yet is possible to achieve in this life.[10]

Given this general description of medieval mysticism, it is both possible and useful to distinguish between two subcategories within it − namely, the apophatic tradition (which holds that the ultimate stage of human existence is a selfless and unknowing merging with the infinite) and the affective tradition (which focuses on the way in which mystical union can be experienced and expressed in emotional, physical, and sensory terms). The apophatic mystic tradition stresses that the pinnacle of intellection is the paradoxical recognition that reason and knowledge must be abandoned in order to achieve unity with the divine.[11] Apophatic mysticism thus characterizes the ultimate goal of humanity

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[7] For discussion of this usage, see the *Oxford English Dictionary*; also Nicholas Watson, "Middle English Mystics," in D. Wallace (ed.) *The Cambridge History of Medieval English Literature* (Cambridge: Cambridge University Press, 1999) 539–65; Michel de Certeau, *La fable mystique: XVI–XVII siècle* (Paris: Gallimard, 1982) and *Heterologies* (Manchester: Manchester University Press, 1986).

[8] Evelyn Underhill poses the question in these terms on the first page of *The Essentials of Mysticism and Other Essays* (New York: Dutton, 1920).

[9] Beckwith, *Christ's Body*, p. 19.

[10] In adopting this working definition I follow a wide range of contemporary scholars, including Sarah Beckwith, Caroline Walker Bynum, Michel de Certeau, and Barbara Newman. In "Middle English Mystics," however, Nicholas Watson argues that Richard Rolle − one of the canonical Middle English mystics − "is working with an inherited doctrine of blessedness too conservative to contain a theory of union at all" (p. 549).

[11] Although the apophatic tradition was a minority view in its own time, it is today generally perceived as representative of medieval Christian mysticism as whole. The explanation for this appears to be related to the early twentieth-century battles over the definition of mysticism: in fighting to distinguish "genuine" mystical experiences from their counterfeit rivals, figures such as Evelyn Underhill, William James, and Rufus Jones advocated a true understanding of mysticism

as anti-experiential: the annihilation of self entails the annihilation of sensory experience, and so this tradition discounts the visions of light, smells of incense, tastes of honey, and so on, that were central experiences in the lives of many medieval mystics.[12] To the extent that these experiences regularly occur on the path to true union with God, they function in the apophatic tradition not as divine signs but as potential distractions from the achievement of self-abnegation, which involves the total absence of both sensory and intellective experiences. Indeed, in his late fourteenth-century *The Scale of Perfection*, Walter Hilton explicitly warns against accepting altered physical sensations as signs of true mystic union, whether "in sounding of the ear, or savoring in the mouth, or smelling at the nose, or else [the sensation of] any perceptible heat as if it were fire, glowing and warming the breast" (1.10).

In contrast, the affective mystic tradition often expresses the experience of union with God in terms of a wide variety of emotional and sensory states, and it recognizes those states as valuable unitive experiences.[13] In this tradition, the ultimate goal of mystic union with the divine is best understood not as a selfless merging into the unknowable divine, but rather as the complete realization of the individual creature in full relation to the Creator – which is seen as including the fulfillment of the bodily senses and the emotions as well as the fulfillment of the rational soul. The general flavor of affective mysticism is perhaps best illustrated by the vision of the thirteenth-century French nun, Marguerite of Oingt, in which she began as a withered tree that revivified and flowered when watered by the river of Christ – at which point she saw the names of the five senses written on her now-flourishing branches (*Œuvres*, p. 147). True union with Christ, on this view, does not remove us from our senses or transcend physical reality in a way that renders it irrelevant; rather, it brings those senses and that physical reality into their fullest form. The goal of mystic union in the affective tradition, in other words, embraces rather than eschews embodiment.

Before turning to a closer examination of how central issues within the apophatic and affective mystic traditions intersect with medieval philosophical theology, it is important to note that the majority of extant mystical literature comes not from medieval university culture, but from convents (a term that

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as transcending sensory experience entirely in a movement toward the universal and absolute. As later scholars of mysticism such as W. T. Stace and R. C. Zaehner adopted and disseminated this understanding, affective/sensory mysticism disappeared from view – and from the study of medieval mysticism.

[12] See, e.g., Denys Turner's *The Darkness of God: Negativity in Christian Mysticism* (Cambridge: Cambridge University Press, 1995).

[13] In *Margery Kempe and Translations of the Flesh*, Karma Lochrie identifies the two main features of affective spirituality as "its corporeality and the imitation of Christ's suffering humanity" (Philadelphia: University of Pennsylvania Press, 1991) p. 14.

properly applies to both monasteries and nunneries) and – in the later Middle Ages – from the religious "Third Order" of the beguines and tertiaries.[14] Moreover, because the majority of medieval Christian mystics were relatively uneducated members of religious orders and lay communities (particularly in the thirteenth through fifteenth century), both mystical experiences themselves and their interpretations were often expressed and recorded in the vernacular of the region, rather than in scholarly Latin. The words of mystics who were not themselves literate survive only through the written records of more educated people – often their hagiographers, who were frequently concerned more with presenting a certain image of their subject than reporting the mystic's own words.[15] This poses an obvious difficulty for the study of mysticism, insofar as it is challenging in these cases to reconstruct fully the actual nature of the mystic's experiences.[16] Even a focus trained exclusively on mystics who wrote down their own experiences does not guarantee a direct glimpse into their inner life, for the ways in which those mystics express their visions – and, perhaps, even the very ways in which they experienced them – were importantly shaped by then current conceptions of sanctity.[17] Although these facts help account for the relative neglect of medieval mysticism by contemporary scholars of medieval philosophy, however, and although they should be kept firmly in mind when approaching the relevant texts, certain themes emerge clearly enough throughout the Christian mystic literature of the twelfth through fifteenth century to make them well worth philosophical attention.

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[14] The dramatic rise of the beguine/tertiary movement in the later Middle Ages has long perplexed scholars. In short, in the thirteenth century, an increasing number of women began to function as lay members of religious orders, removing themselves from normal social life and devoting themselves to prayer and religious service, but without taking vows. Often identified as a "women's religious movement," the beguines were extremely influential on forms of religious expression and piety through the later Middle Ages. See, for instance, Herbert Grundmann's classic discussion in *Religious Movements in the Middle Ages: The Historical Links between Heresy, the Mendicant Orders, and the Women's Religious Movement in the Twelfth and Thirteenth Century, with the Historical Foundations of German Mysticism* (Notre Dame, IN: University of Notre Dame Press, 1995 [orig. publ. in German, 1935]); for a treatment of the relation between the beguine movement and the apophatic mystic tradition, see Bernard McGinn's *Meister Eckhart and the Beguine Mystics: Hadwijch of Brabant, Mechtild of Magdeburg, and Marguerite of Porete* (New York: Continuum, 1994).

[15] The case of Beatrice of Nazareth's vernacular treatise and the markedly different *Vita* composed by her hagiographer offers an interesting illustration of this point. See Amy Hollywood, "Inside Out: Beatrice of Nazareth and Her Hagiographer," in C. Mooney (ed.) *Gendered Voices: Medieval Saints and their Interpreters* (Philadelphia: University of Pennsylvania Press, 1999) 78–98.

[16] See Chiara Frugoni's "Female Mystics, Visions, and Iconography," in D. Bornstein and R. Rusconi (eds.) *Women and Religion in Medieval and Renaissance Italy* (Chicago: University of Chicago Press, 1996) 130–64.

[17] See, e.g., Benedicta Ward's *Miracles and the Medieval Mind*, rev. edn (Philadelphia: University of Pennsylvania Press, 1987). The pressing concern to avoid being condemned as a heretic further affects how mystics were likely to report their experiences.

INTELLECT AND WILL IN THE APOPHATIC TRADITION

The apophatic mystic tradition reaches into the Middle Ages from Plotinus through pseudo-Dionysius the Areopagite and John Scottus Eriugena; it is often seen as culminating in the late thirteenth century with the work of the Dominican Meister Eckhart and continuing into the early Renaissance with Nicholas of Cusa's *De docta ignorantia*. The final goal of apophatic mysticism – the final goal of humanity – is complete union with the divine, where that union entails the absolute absence of self-consciousness and knowledge. As we will see, a prominent theme running throughout this tradition involves the respective roles of intellect and will in attaining this end.

"What is the last end?" asks Eckhart. "It is the hidden darkness of the eternal divinity, and it is unknown, and it was never known, and it will never be known. God remains there within himself, unknown."[18] Eckhart (echoed later by John Tauler and Nicholas of Cusa) contends that the belief that one has achieved any sort of divine knowledge or understanding is itself an indication that one has further to go on the path to genuine union with God. Although the apophatic tradition holds that the final stage of the mystic life involves the abandonment of reason, though, it does not uniformly distance itself from either the intellect or the life of the mind. Earlier figures in this tradition in particular present intellectual learning as a necessary stage along the way toward selfless union, and Eckhart also gives the intellect a central role in his account. According to pseudo-Dionysius, for instance, who is strongly influenced by Plotinus, intellectual study is required to lead us from the sensible world to the knowledge of abstract theological truths; indeed, intellective activity can lead us all the way up to the final stage of mystic truth, at which point we must relinquish reason in order to lose ourselves in God's unknowable Being.[19] This method of reaching the ultimate goal of apophatic union is retained in Eckhart, who in fact characterizes God – the absolute principle or absolute cause – not as pure being, but as pure intellect. On this view, intellect is itself unknowable and without being, whereas being (*esse*) presupposes intellect as the cause of its being.[20] Properly speaking, the soul's union with God is not a merging of self with eternal Being – it is actually the loss of being itself and the absorption of individual consciousness into the "hidden darkness" of God's intellect.

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[18] As quoted in Bernard McGinn, *Harvest of Mysticism in Medieval Germany*, p. 142 (vol. IV of *The Presence of God: A History of Western Christian Mysticism* [New York: Crossroad, 2005]).

[19] See, e.g., pseudo-Dionysius's *On the Divine Names*. Underhill provides a classic summary of this process in *The Essentials of Mysticism*, pp. 11–24. See also Seely J. Beggiani's "Theology at the Service of Mysticism: Method in Pseudo-Dionysius," *Theological Studies* 57 (1996) 201–23.

[20] See Eckhart's *Utrum in deo sit idem esse et intelligere*.

Although central for the Neoplatonist mystics and Eckhart, the role of intellect is sharply downplayed in other figures in the apophatic mystic tradition, particularly in the fourteenth and fifteenth centuries; instead, the will comes to assume an increasingly important role in the ultimate act of union. (This is analogous to debates over intellectualism and voluntarism occurring at this period in the universities [see Chapter 30].) Marguerite Porete, for instance, who was burnt at the stake as a heretic in 1310 for refusing to recant her views, argues in *The Mirror of Simple Souls* that human beings should desire only God, to the point of abnegating personal desire altogether and surrendering their individual wills to God's uniform, unchanging will. Indeed, Porete is closely associated with the Free Spirit antinomianist movement, which held that those who attained mystic union transcended the authority of the church and had no further need for its sacraments or rules.[21] Again, a crucial component of what is renounced is knowledge or understanding; ultimately, Porete indicates, a simple act of will (namely, love) is all that remains. The final goal of humanity is the annihilation of the conscious, knowing self: "The whole is one to her without an explanation (*propter quid*), and she is nothing in such a one. Then nothing more remains for her to do concerning God than remains for God to do concerning her. Why? Because he is and she is not" (ch. 135). By letting go of reason (and the need for understanding or explanation), one is in a position to surrender the human will completely to God's will; in this way, the human being can become fully one with God.

Similar sentiments are also echoed in later fourteenth-century English works, such as the anonymous *Cloud of Unknowing*, which states simply: "Love, but not knowing, may reach to God in this life" (ch. 8). Although this treatise follows the general pattern in the apophatic tradition of providing a systematized approach to achieving true union with the divine, there is no longer any sense that formal intellectual training is a necessary part of this process; central emphasis is placed, instead, on the proper orientation of the will – which is not seen as requiring the intellectual ability to abstract to theological truths from sensible reality. Indeed, the Latin text of the *Cloud of Unknowing* draws a sharp distinction between *scientia* and *sapientia*, contrasting worldly or scientific knowledge with genuine Christian wisdom – a contrast that is also found in other late medieval apophatic works, such as Nicholas of Cusa's fifteenth-century *Idiota de sapientia* (which is heavily indebted to Henry Suso's *Horologium sapientiae*). To achieve wisdom, the

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[21] For a discussion of Porete in relation to the Free Spirit movement – and an argument that there was no such movement in a formal sense – see Robert Lerner, *The Heresy of the Free Spirit in the Later Middle Ages* (Berkeley: University of California Press, 1972).

layperson does not require access to either formal university education or its methodology; indeed, insofar as the practice of *scientia* self-consciously involves the intellect's attempt to apprehend the truth, it is seen as potentially interfering with the soul's ability to know God in the only relevant sense – namely, through love, a pure act of the will. In addition, as is typical in the apophatic tradition, language is seen in the *Cloud* not as revealing God's nature to us but rather as obscuring the unspeakable truth of God's ultimate being (see Chapter 54). In short, "God may well be loved but not thought."

The increasing emphasis on the role of will over that of the intellect in later apophatic mysticism is further highlighted in the story of the Augustinian nun Clare of Montefalco, who, toward the end of the thirteenth century, found that she "lacked her usual light of revelations and peace of soul"[22] during the eleven years that she spent in intellectual study and in religious and political conversation with cardinals and bishops. According to Clare's *Vita*, when she eventually renounced her desire for knowledge and focused her will entirely on God, surrendering herself to his will for her, she began to experience visions again and became content. In general, although mystics in the apophatic tradition tend to describe the merging of one's soul with God as the end goal of a progression through a number of carefully delineated stages, there is a gradual shift away from characterizing this progress as requiring any sort of formal intellectual training. Rather, the path to the total loss of self in God is left open to anyone willing to pursue it.

Significantly, the increased centrality of the will in apophatic mysticism and the growing sentiment that one need not be learned (or even formally literate) to achieve union with the unknowable divine parallels the well-documented shift from the early twelfth century to the late fourteenth century in general attitudes towards the relation of knowledge and piety.[23] Due in part, no doubt, to the development of the university system and the corresponding transfer of formal intellectual training from convents to the universities (see Chapters 4–5), together with the marked distinction of power and religious authority between clergy and laity after the Gregorian reform of the late eleventh century (see Chapter 39), the later Middle Ages witnessed a sharply increased focus on personal piety – a piety that was not only accessible to those both within

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[22] Pietro Tommaso de Töth, *Storia di S. Chiara da Montefalco secondo un antico documento dell'anno 1308* (Siena: tip. pont. S. Bernardino, 1908) pp. 26–7.

[23] For detailed discussions of this shift, see, e.g., McGinn's *The Flowering of Mysticism*; Grundmann's *Religious Movements in the Middle Ages*; and the essays in Caroline Walker Bynum's *Fragmentation and Redemption: Essays on Gender and the Human Body in Medieval Religion* (New York: Zone Books, 1992), particularly "The Female Body and Religious Practice."

and without academic centers and positions of ecclesiastical authority, but that often placed positive value on emotional and sensory responses to God. As we will see, this general shift has important consequences for affective as well as apophatic mysticism.

THE INCARNATION AND THE HUMAN BODY IN
AFFECTIVE MYSTICISM

Although the apophatic tradition of mysticism has remained, however faintly, on the philosophical radar since the Middle Ages, the medieval affective tradition has been almost entirely ignored. One reason for this neglect is that emotional or sensory mystic experiences have often been flatly dismissed by modern scholars as overly concerned with material reality and irrelevant to the spiritual transcendence of "genuine" mysticism.[24] The increased concern in the later medieval period with such experiences, together with the rise of affective piety and the feminization of religious imagery has, in turn, been attributed (in many cases, negatively) to the increased influence of women on late medieval ideas of spirituality.[25] Indeed, the prevailing medieval conception of women as less rational, more emotional, and more closely associated with matter and physicality than men makes it unsurprising that women dominate the affective mystic tradition and that the male mystics associated with it – including Bernard of Clairvaux, Francis of Assisi, Richard Rolle, and Henry Suso – are often described as feminine in their theological sensibilities.

Although its association with the "lower," "feminine" realm of matter has contributed to the neglect of the affective mystic tradition, from a philosophical standpoint much of its interest stems precisely from the light this association sheds on the complex ways in which conceptions of matter and the body functioned in the Middle Ages (see Chapters 46 and 21). Affective mysticism's emphasis on the importance of physical and emotional as well as intellectual and volitional union with God, for instance, actively undermines a strongly dualist conception of human nature that identifies the self with the rational soul; in fact, by focusing on the incarnate Christ – whose bleeding, broken body plays

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[24] So, for example, Evelyn Underhill describes episodes of ecstatic union and physical sensations as "frequently pathological, and . . . often found along with other abnormal conditions in emotional visionaries whose revelations have no ultimate characteristics" (*Essentials of Mysticism*, p. 23).

[25] In *The Religious Orders in England*, for instance, David Knowles describes the "pure spirituality" of the early Middle Ages as "contaminated" by "a more emotional and idiosyncratic form of devotion . . . deriving partly from the influence of some of the women saints of the fourteenth century" (Cambridge: Cambridge University Press, 1948–9) II: 222–3. See also Simone de Beauvoir's extremely dismissive discussion of the female mystic in *The Second Sex*.

an extremely important role in later medieval mysticism – the affective mystic tradition links matter and the physical body directly to the divine.[26]

The increase in importance of affective spirituality from the early thirteenth century onward can be understood, in part, as a reaction to Cathar dualism. In the twelfth century, the Cathars (also known as Albigensians) preached an influential (and heretical) version of absolute dualism in the tradition of Gnosticism and Manicheanism that saw the material world as a prison, created by an evil spirit eternally opposed to an equally powerful good spirit. A human being's primary spiritual duty on this view was to liberate the soul from this physical prison through a process of purification that included the total rejection of material goods and power. According to the Cathars, Jesus was a pure spirit, not a physical human being, who came to the material world in order to teach the path to spiritual transcendence; individual human beings exemplified the cosmic struggle between good and evil in their own ongoing battle between spirit and flesh.

The affective tradition countered the perception that materiality was inherently negative by placing a heavy emphasis (often seen as beginning with Anselm's *Cur Deus Homo*) on the Incarnation: if the supremely good God could take on flesh, then flesh itself could not be evil. In *De sacramentis christianae fidei*, for instance, the twelfth-century Augustinian mystic Hugh of St. Victor first affirms Christ's humanity and then gives an analogy where the union of Christ's divine and human natures in one person is compared to the union of human soul with body in one person. He concludes his description of human nature on a decidedly holistic note: "I say truly (*bene*) that the soul and the flesh is a human being . . . and again I say truly that the soul and the flesh is one person" (ed. Migne, 176: 405A). Such stress on Christ's physical humanity – a stress that continues to gain popularity and importance in the affective mystical tradition throughout the later Middle Ages – and the moral explicitly drawn from it for the case of human beings undermine a Platonic and Neoplatonic identification of self with soul and parallel more closely an Aristotelian hylomorphic conception of the human being as a unified composite of body and soul (see Chapters 21 and 34).

Within affective mysticism, the Incarnation is also seen as divinizing the material realm; the fact that Christ became human was seen as a "guarantee that

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[26] Caroline Walker Bynum has done more to illuminate these issues than any other single scholar, particularly with respect to the relation of affective spirituality to physicality and women. See, e.g., her *Jesus as Mother*, *Fragmentation and Redemption*, and *Holy Feast and Holy Fast: The Religious Significance of Food to Medieval Women* (Berkeley: University of California Press, 1987), as well as her most recent *Wonderful Blood: Theology and Practice in Late Medieval Northern Germany and Beyond* (Philadelphia: University of Pennsylvania Press, 2007).

what we are is inextricably joined with divinity."[27] The remarkable increase in Eucharistic piety from the thirteenth century onwards and the central importance of the Eucharist in the mystic experiences of many figures within this tradition, for instance, underscore the popularity of the belief that human beings are most closely joined with Christ's divinity through his corporeity. It was not an uncommon event for figures in the affective mystic tradition such as Mary of Oignies, Margaret of Ypres, Christina Mirabilis of St. Trond, or Ida of Louvain to see flesh or taste honey in the Eucharistic wafer, for instance, or to see the priest hold up an infant in place of the host at the moment of transubstantiation.[28]

In general, affective mystic experiences encompass a wide variety of physical and emotional states, including visions and auditory, olfactory, gustatory, and tactile sensations. In the *Form of Perfect Living*, for instance, Richard Rolle describes the third and final "degree" of the spiritual life in terms of intensely pleasant heat: "He or she that is in this degree may as well feel the fire of love burning in their soul, as you may feel your finger burn if you put it in the fire. But that fire, if it be hot, is so delightful and wonderful that I cannot tell it" (ch. 8). Although in many cases it is difficult to determine from surviving texts whether mystics are speaking of their experiences in literal or metaphorical terms, and although treating the experiences of mystics in different regions and different centuries together obscures important and interesting differences between them, the persistently physical expression of affective mystic spirituality is striking. Thus, Beatrice of Nazareth laughed uncontrollably when experiencing the joy of Christ, Catherine of Siena endured a "mystic death," and a number of mystics – including Francis of Assisi and Catherine of Siena – received the stigmata. Standardly negative medieval attitudes towards matter and the body persist in this tradition as well, but Christ's incarnation and passion consistently provide these mystics with a means for a positive conceptualization (and experience) of the human body and the material world.

The senses and sensory perception are portrayed in the affective tradition as not merely a distraction from contemplation but also as an important means of achieving union with God. Hugh of St. Victor, for instance, describes the senses as a bridge or pathway between the material and the divine: "The body ascends by means of sense, the spirit descends by sensuality" (*De unione corporis et spiritus*, ed. Migne, *Patr. Lat.* 177: 285A). In direct contrast to the apophatic

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[27] Bynum, *Jesus as Mother,* p. 130.

[28] See Bynum's discussion of mystic experiences involving the body of Christ in "Women Mystics and Eucharistic Devotion in the Thirteenth Century" and "The Female Body and Religious Practice in the Later Middle Ages," in *Fragmentation and Redemption*, as well as the extended discussion in *Holy Feast and Holy Fast*.

understanding of mystic union, then, which involves a radical loss of self, the affective mystic understanding of union with God can be seen as a radical fulfillment of the embodied self.

Even accepted negative associations with matter and physicality are sometimes used by medieval mystics towards a positive end: female mystics in particular often highlight their closer association with matter and their status as the "weaker vessel" to validate their religious authority. We can see an early use of this "power made perfect in weakness" approach in Hildegard of Bingen, a twelfth-century Benedictine abbess of remarkable influence and longevity.[29] Active on a wide variety of fronts, including theology, philosophy, poetry, music, and medicine, Hildegard never expresses the anxiety of Clare of Montefalco concerning the compatibility of intellective activity with her mystical visions. Still, Hildegard emphasizes both her lack of formal education and her status as a "poor little female figure" (*paupercula feminea forma*);[30] she appeals directly to her supernatural experiences to account for both her intellectual insights and her authority to share those insights, as when she explains that the knowledge of Scripture she receives in a vision is what serves as the inspiration – and the authorization – for her *Liber divinorum operum*.[31]

This sort of appeal to divine authority via personal weakness increases in the later Middle Ages, as religious authority continues to be transferred away from the laity to the clergy; it appears in the writings of many prominent female mystics of the thirteenth through fifteenth century, including Angela of Foligno, Mechtild of Magdeburg, and Julian of Norwich. In the short text of the *Revelations of Love* (*Book of Showings*), for instance, Julian first underscores the fact that she is "a woman, lewd, feeble, and frail" – and then immediately goes on to state that everything she knows and reports comes directly from "him that is sovereign teacher" (ch. 6 of the shorter *Revelations*). God's charity is what both authorizes and impels her to share her "shewings."[32]

Although mystic experiences were often used to validate the teachings of individuals outside the clergy, however, they were only rarely used to undermine orthodox ecclesiastical authority. Mystic experiences were by nature private, but

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[29] For a more detailed discussion of this topic, see Barbara Newman's "Hildegard of Bingen: Visions and Validation," *Church History* 54 (1985) 163–75.

[30] *Epistola* 2 (ed. Pitra, *Analecta*, p. 332). The *Vita* of Jutta of Sponheim, her teacher, suggests that Hildegard may, in fact, be exaggerating her lack of intellectual training. See Anna Silvas, *Jutta and Hildegard: The Biographical Sources* (Turnhout: Brepols, 1998).

[31] See Godefridus *et al.*, *Vita Sanctae Hildegardis*, ed. M. Klaes (Turnhout: Brepols, 1993) II.16.

[32] For a discussion of how issues of authority function in the longer text of the *Revelations*, see Lynn Staley, "Julian of Norwich and the Late Fourteenth-Century Crisis of Authority," in D. Aers and L. Staley (eds.) *The Powers of the Holy: Religion, Politics, and Gender in Late Medieval English Culture* (University Park: Pennsylvania State University Press, 1996) 107–78.

within medieval Christianity the condition of their possibility was communal. Just as Aristotle used the human body as a metaphor for human society, so in the Middle Ages Christ's body was used as a metaphor for ecclesiastical society: individual believers were understood to work together to form a single, holy unity. As we will see, the importance of this corporate identity within medieval spirituality has further implications for medieval mystic conceptions of the role of active service in the good life.

CONTEMPLATION, ACTIVITY, AND THE GOOD LIFE

Given the final goal of mystic union, particularly as that union was understood within the apophatic tradition as transcending both physicality and knowledge, we might expect medieval mystics to come down on the side of contemplation in the age-old debate about the roles of contemplation and activity in the good life (see Chapter 33). Yet, although some figures (such as Richard Rolle[33] and Walter Hilton[34]) lean in that direction, withdrawal from active life was in fact the rare exception rather than the general rule in both the affective and apophatic traditions. From Hildegard of Bingen in the twelfth century to Meister Eckhart, Catherine of Siena, and even the secluded anchoress Julian of Norwich in the later fourteenth century, active involvement with religious, social, and political communities forms an integral part of most mystics' lives.

One particularly striking example of the attitude that the individual mystic life includes active involvement with community can be seen in the life of the nuns at Helfta, Saxony in the thirteenth century,[35] particularly Gertrude the Great (author of *The Herald of Divine Love* or the *Revelations*), Mechtild of Hackeborn (author of *The Book of Special Grace*), and Mechtild of Magdeburg (author of *The Flowing Light of the Godhead*). Many of the numerous visions reported by these women were understood to have direct practical significance both for the community at Helfta and for their broader ecclesiastical and social communities. Gertrude, for instance, reports receiving a vision in which God gave her a choice between joining in unspeakable mystic union with Christ or conversing with God in such a way that she would later be able to share these

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[33] For an argument that Rolle only grudgingly acknowledged the need for active service in the mystic's life, see Richard Kieckhefer's "Mysticism and Social Consciousness in the Fourteenth Century," *Revue de l'Université d'Ottawa* 48 (1978) 179–86.

[34] Although praising contemplation as the highest end, Hilton does concede in his *Epistle on the Mixed Life* that: "Thou shalt meddle [mix] the works of active life with spiritual works of contemplative life, and then does thou well" (ed. Ogilvie-Thomson, pp. 89–103).

[35] The classic treatment of this community is Bynum's "Women Mystics in the Thirteenth Century: The Case of the Nuns of Helfta," in *Jesus as Mother*, pp. 170–262; see also Mary Finnegan, *The Women of Helfta: Scholars and Mystics* (Athens: University of Georgia Press, 1991).

conversations with others for their instruction. Gertrude chooses the second option (*Legatus* 4.2). In another vision, Gertrude hears Christ say:

[I]t is equally the same to me whether you rest in spiritual things or sweat in external labors, so long as you refer your will in free intention to me. For if I took pleasure only in spiritual exercises I should have so reformed human nature after the fall that it would no longer have needed food or clothing or the other things for which human industry exerts itself.

<div align="right">(<i>Œuvres</i> Bk. 3, ch. 68)</div>

Gertrude's assurance of divine approval for a life involving active service is common to the Helfta community at large.

The brief and remarkable life of Catherine of Siena, a fourteenth-century Dominican tertiary, further illustrates this general attitude. Although at first strongly inclined toward complete withdrawal from public life for contemplative purposes, Catherine reports receiving a vision one day of Christ standing outside the door of her cell and calling her to join her community and to care for her neighbors.[36] She spent the remaining thirteen years before her death deeply immersed in social, political, and ecclesiastical affairs – in addition to caring for the sick and working to bring peace to her native Siena, she devoted considerable energy attempting to avert and then to heal the schism that split the church in 1378, dictating countless letters (over three hundred of which survive) and traveling to Florence, Avignon, and Rome to meet with ecclesiastical authorities. At the same time, Catherine retained a deep and abiding sense of mystical union with Christ, which at times manifested itself in dramatic physical ways, including the "mystical death" in 1370 mentioned earlier, when she lay for four hours without breathing or her heart beating, and her receiving of the stigmata in 1375.

This emphasis on the importance of the active as well as the contemplative life can even be seen in the case of the late fourteenth-century anchoress, Julian of Norwich. Although physically removed from communal life and voluntarily walled up in a small cell attached to St. Julian's Church in Norwich, Julian had nevertheless gained a reputation as a spiritual counselor and advisor by the time Margery of Kempe came to consult her in 1413. This was in keeping with the general pattern for anchorites, who were encouraged to remain involved in the spiritual (and, often, educational) life of their communities even after removing

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[36] *Legenda major* 216 (ed. in J. Bolland *et al.* (eds.) *Acta sanctorum quotquot toto orbe coluntur* [Paris: Palme, 1863–1940] p. 915). For a more detailed discussion of Catherine's attitude toward the life of active service, see Karen Scott, "'This is why I have put you among your neighbors': St. Bernard's and St. Catherine's Understanding of the Love of God and Neighbor," in D. Maffei and P. Nardi (eds.) *Atti del Simposio Internazionale Cateriniano-Bernardiniano* (Siena: Accademia senese degli intronati, 1982) 279–94.

themselves from general society in order to devote themselves more fully to spiritual devotion; so, for instance, the *Ancrene Wisse* – an extremely influential thirteenth-century English handbook for anchorites – includes explicit recommendations for balancing contemplation with obligations to one's community.[37] This recognition of the importance of and need for active service would be surprising in a book written for recluses, if not for the way in which it fits into a broader understanding of the mystic life as inherently communal.

Christian mysticism, both apophatic and affective, flourished in the later Middle Ages. Widespread reports of mystic experiences, however, led to increasing suspicion that such experiences (particularly affective ones) were not divinely inspired; as the "Age of Reason" took hold in the early modern era, mysticism diminished in both importance and popularity.

[37] For a comprehensive introduction to *Ancrene Wisse*, see Y. Wada (ed.) *A Companion to* Ancrene Wisse (Cambridge: Brewer, 2003).

ARGUMENTS FOR GOD'S EXISTENCE

BRIAN LEFTOW

Kant named the three main sorts of argument for God's existence "ontological," "cosmological," and "teleological." All three sorts were deployed in the Middle Ages. "Ontological" arguments are deductive and have no empirical premises. These originated with Anselm of Canterbury and flourished in the thirteenth century, but fell into disuse afterward, reemerging only with Descartes. Medieval "cosmological" arguments are also deductive, but have at least one empirical premise. Most medieval cosmological arguments depend heavily on material from Aristotle or John Philoponus; the most original medieval contributions were by al-Fārābī and Avicenna. Cosmological arguments typically first infer the existence of something, and then argue that it is God. Although medieval philosophers had much to say on the second score, for reasons of space this chapter focuses only on their existence arguments. Teleological arguments – arguments from design – were not prominent in medieval philosophical theology and mostly remained at an intuitive level.[1] The Middle Ages' real contribution to natural theology thus lies with the first two sorts, and so this chapter discusses only these.

ONTOLOGICAL ARGUMENTS

Anselm gave the first "ontological" argument in *Proslogion* 2. The key passage is this:

We believe [God] to be something than which nothing greater can be thought . . . The Fool . . . when he hears . . . "something than which nothing greater can be thought," understands what he hears, and what he understands is in his intellect. [But] it cannot exist in the intellect alone. For if it exists only in the intellect, it can be thought to exist also in reality, which is greater. If therefore it . . . exists only in the intellect, this same

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[1]   The most elaborate scientifically was Levi ben Gershom's (Gersonides). Unfortunately the "science" he drew on was astrology. The most elaborate I know of in terms of philosophical machinery was Aquinas's Fifth Way.

thing than which a greater cannot be thought is a thing than which a greater can be thought . . . So something than which no greater can be thought . . . exists . . . both in the intellect and in reality.[2]

Let "a G" abbreviate "something than which no greater can be thought." Then, on one reading, Anselm's crucial premises are

1. Something existing in the intellect is a G, and
2. If any G in the intellect does not exist outside the intellect, it could have been greater than it actually is.

His *reductio* runs this way. By definition, if an item x is a G, then no possible object in any possible state is greater than x actually is. It is in a state than which there is no greater. Let g be our G existing in the intellect. As a G, g is in a state than which there is no greater. According to (2), however, if g does not exist outside the intellect, g could have been greater than g actually is. So, according to (2), if g does not exist outside the intellect, g is not in a state than which there is no greater. So, if g does not exist outside the intellect, g both is and is not in such a state. Since that is impossible, it follows that g exists outside the intellect.

   This argument is valid, so the only question is whether its premises are true. Soon after Anselm published it, Gaunilo of Marmoutiers replied with a parody that raises this issue:

> You cannot doubt that [an] island more excellent than all other islands truly exists somewhere in reality, any more than you can doubt it to be in your mind. For it is more excellent to exist not only in the mind but also in reality. So it must . . . exist. For if it did not, any other island existing in reality would be more excellent.
>
> (*Pro insipiente* 6)

Gaunilo likely misunderstood Anselm: "most excellent" does not mean what "such that no greater can be thought" does. The most excellent actual dog is such that a greater can be thought – for instance, Lassie. The right parody would be to say that if we let "a G" stand for "an island than which no greater can be thought," the resulting argument will work as well as Anselm's. As there is no such island, Gaunilo should have concluded that we know the argument is not sound, even if we do not know which premise is flawed.

   Anselm did not reply well to Gaunilo's parody. But in responding, he did come up with a better argument: "Whatever can be thought and does not exist, if it existed, would be able . . . not to exist. [But] something than which no greater can be thought . . . if it existed, would not be able . . . not to exist – for

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[2] Anselm, *Proslogion* 2. Ellipses here and elsewhere are used to facilitate focusing only on what is formally relevant to an argument.

which reason, if it can be thought, it cannot not exist" (*Reply to Gaunilo* 1). Anselm's reasoning is this:

3. If it can be thought that a G exists while in fact no G exists, then any G would exist contingently if it did exist.
4. It is not possible that a G exist contingently. So
5. It is not the case that it can be thought that a G exists while in fact no G exists.
6. It can be thought that a G exists. So
7. It is not the case that no G exists. So
8. Some G exists.

It would help Anselm to recast (3) as

9. If it is possible that a G exists while in fact no G exists, then any G would exist contingently if it did exist

and alter the rest of the argument accordingly. For (9) is true in the Brouwer system of modal logic, and many – perhaps most – philosophers grant that the correct logic for real metaphysical modality includes Brouwer.[3] Given this alteration, the main problem Anselm's argument faces is giving reason to believe that possibly there is a G.

Two thirteenth-century ontological arguments are also worth noting. In the 1240s, Richard Fishacre took as a premise that God is maximally simple, and reasoned that: "Something most simple . . . would be identical with its being. [Thus] anything most simple . . . would exist."[4] If "being" means *existence*, the argument is a slip, presupposing what it seeks to prove; if it means *essence*, however, we could recast it this way:

10. Possibly God exists.
11. If possibly God exists, a divine essence exists.
12. Any divine essence = God (simplicity premise). So
13. God exists.

(11) is attractive. Before ever there were hamsters, it was possible that there be hamsters. It is a reasonable thought that what made this possible was that there was a property, *hamsterhood*, that existed and could be exemplified. In the mid-1250s, Bonaventure made a similar argument from simplicity: because God

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[3] The logic I refer to is S5. Perhaps the most prominent defender of S5 is Alvin Plantinga. See, e.g., *The Nature of Necessity* (Oxford: Oxford University Press, 1974). For arguments against S5 see Hugh Chandler, "Plantinga and the Contingently Possible," *Analysis* 36 (1976) 106–9; Nathan Salmon, *Reference and Essence* (Princeton, NJ: Princeton University Press, 1981) 229–52.

[4] Richard Fishacre, *Sent.* I.3 (tr. R. James Long, "Richard Fishacre's Way to God," in R. Link-Salinger *et al.* [eds.] *A Straight Path* [Washington, DC: Catholic University of America Press, 1987] pp. 176–7).

is simple, in 'God exists,' the existence predicated of God is identical with God. This is effectively an identity statement, and so (Bonaventure concludes) it is indubitable.[5] Though rather different from Anselm's, both arguments count as ontological in virtue of being deductive and non-empirical.

Thomas Aquinas took exception to all this. Around 1260, he wrote that God can be thought not to be due only to our cognitive limitations: that is, because we do not have cognitive access to that which is identical with God's existence. Furthermore, he claims:

No difficulty accrues to those who posit that God does not exist. For it is no difficulty that for anything given in reality or in the intellect something greater can be thought, save to one who concedes there to be in reality something than which a greater cannot be thought.

(*Summa contra gentiles* I.11)

Aquinas's reasoning is this. If there is no actually existing G, then something greater can be thought than anything given in reality. For we can think of a G. If there is none, this is a thought of something greater than anything given in reality. Now if I say that a G exists in reality and that something is greater than it is, I say that there is something that both is and is not a G – an impossible individual. So someone who believes in a G cannot also say that something greater can be thought than anything given in reality or the intellect. But if no G exists in reality, then, at most, one exists in my mind. If I say that a G exists in my mind *and* something is greater than that G is, what follows is simply that I have "in mind" an impossible individual. For if a G exists in my mind, it is really a G, though it exists only in my mind; but if something is greater than it, it is also not a G. We can have impossible individuals in mind; we do, for instance, when we conceive of a particular round square. So one can consistently deny the existence of a G – if one also holds that the concept of a G is a concept of an impossible individual. Although Aquinas does not put the issue in quite these terms, he may have been the first to point out that the claim that a G is possible needs support.

Forty years after Aquinas, John Duns Scotus tried to provide something close – namely, an argument that possibly there is a most perfect possible being. Defining a *simpliciter* perfection (s-perfection) as an attribute better to have than any positive attribute that cannot be co-exemplified with it, he reasons this way: having an s-perfection is better than having any positive attribute inconsistent with it. Consider a candidate s-perfection, F. Given the definition, if there is some positive F* such that being F* is better than being F, either F is not

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[5] *Quaest. de mysterio Trinitatis* I.1 arg. 28 in agreement.

an s-perfection or F and F* can be co-exemplified. If being F* is equal to or incommensurable with being F, then either neither is an s-perfection or they can be co-exemplified.[6] So there are as many as two s-perfections, F and F*, only if they can be co-exemplified; in general, however many s-perfections there are, they are co-exemplifiable – that is, some single possible being in some possible state has all of them. In this possible state, Scotus thought, that being is a most perfect possible being, for nothing else has a conjunction C of positive attributes that it is better to have. For if C is possible, positive, and better to have than the conjunction of what we have previously thought were s-perfections, and C cannot be co-exemplified with that conjunction, then C is itself an s-perfection, and the previous conjunction contains no s-perfections unless it has members in common with C.[7]

If all s-perfections can be conjoined, though, does it then follow that a G is possible? Let F be the conjunction of all s-perfections. Suppose there is a further family of properties, the Hs, each of which is positive, none of which can be co-exemplified, and which stand in an ordering relation: it is better to have H^2 than H^1, better to have H^3 than H^2, etc. Suppose that infinitely many Hs stand in this relation: there is a least H-property, but no greatest H-property. Then no H is an s-perfection, since no H is better to have than every positive property incompatible with it. Suppose finally that all H-properties are compatible with being F. On these assumptions, no G is possible. For every possible F-being with an H-property, there is a greater possible being. One could easily argue that this is how things actually are: let F be the conjunction of the standard divine essential attributes, and let the Hs be contingent moral record properties (having done one good deed, having done two good deeds, three . . .). Given this, even if there are s-perfections and Scotus's argument shows that they all are compatible, more work needs to be done before we can conclude that a G is possible.

Another of Scotus's arguments for the possibility of a perfect being takes off from the following premise: "Because being able to cause does not necessarily bring with it any imperfection . . . it can exist in some nature without imperfection" (*De primo principio* 3.13). Scotus's premise amounts to this:

14. It is not the case that, necessarily for all *x*, if *x* can cause, *x* is in some respect imperfect.

His premise is not, in other words, that something can be perfectly able to cause, without any imperfection in its causing ability; it is, rather, that being able to

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[6] Scotus does not consider the alternatives of equal or incommensurably valuable candidate s-perfections, but completeness requires their mention.

[7] *De primo principio* 4.10–11, with considerable explication.

cause is not necessarily linked with any property the having of which entails being in some respect imperfect. And (14) is plausible. For it does not seem that being able to cause strictly implies being in some respect imperfect due to any conceptual tie. So it does not seem that the first strictly implies the second at all – which is reason to assert (14). Now (14) is equivalent to:

A. It is not the case that, necessarily for all *x*, either *x* cannot cause or *x* is not in some respect imperfect.

(A) is, in turn, equivalent to:

B. It is possible that, for some *x*, it is not the case that (either *x* cannot cause or *x* is not in some respect imperfect),

and (B) is equivalent to:

15. It is possible that some *x* be able to cause and be in no respect imperfect.

But necessarily, what is in no respect imperfect is in all respects perfect. So, Scotus infers,

16. It is possible that some *x* be able to cause and be in all respects perfect.

Anything in all respects perfect would be a G, and so (16) implies that possibly there is a G. (Note that what one thinks of this argument will depend on how one views the move from "P does not imply Q due to any conceptual tie" to "P does not imply Q.")

   Scotus's own argument for God's existence runs this way (*De primo principio* 3.19):

17. An uncaused cause (UCC) cannot be caused by anything. (df.) So
18. If a UCC can exist, it can exist uncaused.
19. A UCC can exist. ((14), ultimately)
20. A UCC can exist uncaused. (18, 19, modus ponens)
21. If a UCC does not exist uncaused, it cannot exist uncaused. (premise)
22. If a UCC can exist uncaused, it does exist uncaused. (21, contrapos.)
23. A UCC does exist uncaused. (20, 22, modus ponens)

This argument is "ontological": it is deductive and has no empirical premises. Unfortunately (21) is false: if there happens to be no UCC, it might still be possible that one exist uncaused, for perhaps one exists causelessly in another possible world.[8]

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[8] James F. Ross revived Scotus's argument in the 1960s; see his *Philosophical Theology* (Indianapolis: Bobbs-Merrill, 1969).

COSMOLOGICAL ARGUMENTS

Cosmological arguments are deductive and have at least one empirical premise. Medieval philosophers developed the temporal regress and "contingency" cosmological arguments and also retailed Aristotle's argument from motion.

Temporal regress arguments

These have two main premises:

24. The universe had only a finite past[9]

(which entails that

25. The universe began to exist)

and

26. Whatever began to exist was caused to do so.

Philoponus, the sixth-century Aristotelian, based arguments for (24) on the axioms that

NT. An infinite cannot be traversed, and
NG. Nothing can be greater than an infinite number.

These axioms yielded three arguments:

PRES. Due to NT, had there been an infinity of celestial rotations, the present rotation could never have been reached.
ADD. Had there been an infinity of celestial rotations, each new rotation would add to the number of rotations. This would yield a number greater than the prior infinite. This would contradict NG.
MULT. The heavenly spheres' revolutions are multiples of one another. But "if it is not even possible to traverse the infinite once, is it not [absurd] to assume ten thousand times the infinite?"[10] For there to have been infinite rotations of the solar and lunar spheres, then, would contradict both NT and NG.[11]

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[9] In our modern view, this is an empirical premise: there are empirical grounds to favor a Big Bang cosmology. The medievals would have disagreed. They were not in a position to argue a Big Bang cosmology, and backed (24) on conceptual grounds: as they saw it, (24) was true because it *had* to be.

[10] As reported by Simplicius, *In Phys.* (X: 1179.23–24; tr. Wildberg, *Philoponus Against Aristotle on the Eternity of the World* [Ithaca, NY: Cornell University Press, 1987] p. 146). I have cleaned up and strengthened Philoponus's presentation: where he speaks of "motions" – e.g. the generation of air from fire – I speak of past events of at least some minimum unit of duration.

[11] MULT does not really add any new consideration to ADD, since multiplication is just multiple addition. I record it only because medievals responded to it separately.

In Islamic philosophy, the Muʿtazilites and Ashʿarites picked up and developed these arguments (see also Chapter 17). Their most interesting addition was the thought that items of finite span, added together, can never compose an item of infinite span.[12] In the eleventh century, al-Ghazālī adds to MULT that if one infinite number is one twelfth as large as another, what is divisible into twelfths must be an even number (*Incoherence of the Philosophers*, tr. Marmura, p. 19).[13] But an infinite number cannot be even or odd, for either way the infinite is "in need of one" (ibid., p. 18) – if it is even, for instance, it is one less than an odd number. Yet any number must be even or odd (ibid., p. 19). If this is correct, there can be no infinite number; hence no infinite number of days; hence there cannot have been an infinite past; and hence, al-Ghazālī infers, (24) is true. Another of al-Ghazālī's arguments makes use of the Aristotelian commonplace that there could be no actually infinite collection. Were the past infinite, he notes, there would now be an infinite collection of immortal human souls (ibid., p. 19).

Some Islamic philosophers backed (26) with a "principle of determination": since prior to the universe's beginning it was equally possible for it to be or not be, there had to be a cause for its being rather than not being.[14] A principle of sufficient reason drives this inference: it is assumed that as the universe appeared contingently, there "must" have been an explanation of its appearing. That principle was not pushed as far as it might have been, however. Confident that what would later be called the problem of Buridan's Ass would not be a problem for God, al-Ghazālī is content to say that God, by sheer will, could pick a time for the world to begin without any sufficient reason to pick one time over another (ibid., pp. 21–2).

Aquinas points out against PRES that it is compatible with the past having been infinite that every interval of time (say, a day) be only finitely distant from every other particular day. Were this so, every distance between two days would be traversable: the present could be reached no matter what day one started from (*Summa theol.* 1a 46.2 ad 6). This implies part of a response to ADD – if an infinite distance is exhaustively composed of finite distances, it is composed of distances that can be added to. Aquinas makes a similar point: had the past been infinite, still the present could be added to: the part of time which came after the present would always be finite (*Summa contra gentiles* II.38).

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[12] For a general overview of Islamic discussions, see Husām Muhī al-Dīn al-Alousi, *The Problem of Creation in Islamic Thought* (Baghdad: National Printing and Publishing, 1968) pp. 298–320.

[13] Ghazālī does not actually say that it must be even, but he takes it as obvious that something divisible into sixths must be even or odd, and it cannot be odd.

[14] Majid Fakhry, "The Classical Islamic Arguments for the Existence of God," *Muslim World* 47 (1957) p. 139.

But (the friend of ADD might reply) would not the sum of infinite past plus finite addition to the present yield something greater than the infinite past alone? Ḥasdai Crescas would deny this in the fourteenth century: the infinite is not measurable, and so one infinite cannot be greater than another, even if it includes something the other does not (*Or Adonai*, tr. Wolfson, *Crescas' Critique*, pp. 189–91).

NG implies that infinite quantities cannot be proper parts if

PP. Wholes are always greater than their proper parts,

and it implies that all infinite quantities are of equal size if

R. The relations *equal to* and *greater than* hold between infinite quantities.

So, given PP and R, NG yields MULT. Averroes denies PP and R: *equal to* and *greater than* hold only if quantities have end points, but periods without beginning or end have none (*Incoherence of the Incoherence*, tr. van den Bergh, p. 10). His thought may be that such periods have no determinate size, since size is measured between end points. Averroes replies to Ghazālī that being even or odd are properties only of finite numbers (ibid., pp. 12, 13); he might have drawn this from the denial of R, reasoning that an even number must be equal to twice some other number and greater than some odd number. Gregory of Rimini would later suggest that such terms as 'part,' 'whole,' and 'greater than' have more than one sense, and that the senses differ in such ways as to block ADD and MULT.[15] Acceptance of actually infinite collections became common in the fourteenth century. Finally, leaving the principle of sufficient reason aside, the "determination" argument is faulty. It is not obvious that the past's being finite entails that the world need not have existed: it could be necessary that the world exist at every time it does exist, without its being necessary that every time have had a predecessor.

"Contingency" arguments

In the early tenth century, al-Fārābī gave the first contingency argument, which was in essence this:

All contingent beings are caused to exist.
The cause of any contingent being either is or is not contingent.
A series of contingent causes cannot continue infinitely or be circular.

[15] Gregory of Rimini, *Sent*. dd. 42–44, q. 4, as quoted in John Murdoch, "Infinity and Continuity," in N. Kretzmann *et al*. (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) p. 572 n. 23.

So, the series must terminate in an uncaused cause, which as uncaused is not contingent.[16]

Historically, however, Avicenna's subsequent version was the most important, being adopted by, among others, Averroes, Scotus and Francisco Suárez. Avicenna asks us to suppose that some contingent being's existence has causes all of which coexist and exist contingently. In this case, he argues:

> Their total . . . whether . . . finite or infinite, is either necessary of existence . . . or contingent. If it is necessary . . . but each of its units is contingent, then the necessary . . . would be composed of contingents, which is absurd. And if it is contingent, the total needs . . . something to bestow existence. This will be either external . . . or internal to it. If it is internal . . . a cause of the total is primarily a cause for the existence of its parts . . . and thus it will . . . cause [its own] existence . . . [Thus] it is external to the total and [so] not contingent.[17]

Let T be the "total" these causes compose. Then Avicenna's reasoning is this:

27. T is either necessary or contingent.
28. No necessary whole is composed entirely of contingent parts.
29. All of T's parts are contingent. So
30. T is contingent.
31. Every contingent being's existence is caused. So
32. T has a cause.
33. T's cause either is or is not part of T.
34. If it is part, it causes itself to exist.
35. Nothing can cause itself to exist. So
36. It is not part of T.
37. T includes all contingent causes of the posited contingent being.
38. Whatever causes T causes the posited contingent being. So
39. The cause of T is a necessary being.

The restriction to coexistent causes is doubtless to ensure that there *is* such a whole, but the argument could also be recast in terms of transtemporal series. (28) is fairly plausible: any contingent part can fail to exist, and presumably many sums of them can also fail to exist, and it is at least plausible that some parts or sums are such that the whole would not survive their absence. (34) supposes that a full cause of T's existence must be a full cause of all T's parts' existence (else an uncaused part could account for T's existence by causing all the other parts). But this seems true. If there is no cause for A, then though it is

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[16] See the text translated in Robert Hammond, *The Philosophy of Alfarabi and its Influence on Medieval Thought* (New York: Hobson Book Press, 1947) p. 21.

[17] Avicenna, *Al-Najāt*, as translated in George Hourani, "Ibn Sina on Necessary and Possible Existence," *Philosophical Forum* 4 (1972) pp. 81–2. 'Contingent' has been substituted for Hourani's 'possible,' which although more literal nevertheless gets the sense wrong in this context.

true that if A causes all the rest of T, we can say why T exists given that A does, still we cannot say why T exists: if there is no explanation for A's existence, there is none for T's.

Al-Ghazālī replies that Avicenna had overlooked an alternative: if "contingent" just means "has a cause" and "necessary" just means "lacks a cause," then it can be the case that each contingent thing in T has a cause (another contingent thing in T), but that the whole has no cause and so is a necessary being (*Incoherence*, tr. Marmura, p. 82). But this was not Avicenna's understanding of the modal terms (nor an independently plausible one). Avicenna was clear that a necessary being is one whose non-existence would entail an impossibility and that a contingent being is one whose non-existence is neither necessary nor impossible.[18] Ghazālī's point is thus not germane.

William of Ockham would later agree that T has no one cause, but he adds that T depends on itself, by way of each part of it depending on another part of it (*Quaest. in Phys.* 135). This suggests that (38) does not in fact yield (39): perhaps T's cause is not part of T but is still contingent, because that cause is all parts of T, by each causing some other parts of T. The thought here is this: suppose that T is an infinite series of causes, mapped 1:1 to the number series . . . , −3, −2, −1, 0, 1, ... Then every cause in the series has a cause elsewhere in the series, and so the whole is in a way self-causing – not by itself, as a whole, causing itself as a whole to exist, but by way of each part causing the next, and so collectively causing all the parts, as well as their composition into a whole.

Another thought that might lie behind (28) is that if all the parts are contingent, they might all fail to exist at once – in which case the whole could not be necessary. This thought is the root of an argument by Moses Maimonides: suppose that there has been infinite time, and that all things are such that they might cease to exist. It is possible that at some time nothing is left in existence. Given infinite time, this would already have occurred: in infinite time, every possibility is eventually realized. So nothing would exist now. Thus, if there has been infinite time, it is not the case that all things are such that they might cease to exist (*Guide of the Perplexed* pt. II ch. 1). Aquinas would later adopt this as part of the third of his famous Five Ways to prove God's existence (*Summa theol.* 1a 2.3c). In so doing, Aquinas is sometimes accused of a quantifier-shift fallacy – that is, of inferring from the claim that each thing is such that at some time it ceases to exist to the claim that at some time, each thing is such that it ceases to exist (at that time). We could, however, construe the offending "then" as "then plausibly" – though the resulting argument would no longer be what

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[18] Ibid., p. 79; cf. pp. 77, 76.

Aquinas would call a demonstration – and treat the whole argument this way: if all things might cease to exist, then plausibly they all might cease at once. If there has been infinite time, there has been enough time for this to occur if it is possible. So it is plausible that there would be nothing now, if nothing is not such that it might cease to exist. So if there has been infinite time, it is plausible that something is not such that it might cease to exist.

The argument from motion

Aristotle's argument for a first, unmoved mover that is the ultimate source of motion was championed by al-Fārābī, Maimonides, Aquinas, and hosts of lesser lights. The first of Aquinas's Five Ways (which may also stem from an argument in Maimonides)[19] gives the core of this argument (*Summa theol.* 1a 2.3c):

40. Some things are in motion.[20]
41. Whatever is in motion is being moved by another thing.
42. The regress of moved movers must terminate in a first mover. So
43. There is a first, unmoved mover.

Standard Aristotelianism used 'motion' to label changes of quality and quantity as well as place. (41) thus proved controversial.

Many Franciscans – including Bonaventure, Scotus, and Ockham – insisted that wills "move" themselves or at least that things with wills do so.[21] If there is not some sense in which this is true, then we are not genuinely free. This would not automatically imply that any material thing moves itself locally. A Cartesian, for instance, might hold that souls are the primary bearers of wills, that a will moves its associated body as something like an efficient cause, and that the soul directly "moves itself" only in a sense not involving literal locomotion.[22] Nevertheless, if it is *we* who primarily have the will and move ourselves locally by willing to do so, then if wills move themselves, something moves itself locally without being moved by another. The best response on Aquinas's behalf might be to insist that our souls are in some sense parts of us, and so this is a case not of a whole moving itself but of one part of a whole moving a different part and, thereby, derivatively moving both itself and the whole.

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[19] *Guide* pt. II ch. 1. Aquinas's Second Way is similarly just a riff on an argument of Aristotle's in *Metaphysics* II.2. If any of the Five Ways originate with Thomas, they are the fourth and fifth.

[20] Or: "some things are being moved." There is still debate about just how to translate the Latin *moveri*.

[21] Bonaventure, *Sent.* I.37.2.2, n. 4; Scotus, *Quaest. in Meta.* IX.15; Ockham, *Quodlibet* I.16.

[22] If a writer recognizes some sense in which a soul is where its body is, then if a soul wills that its body move to a new place and its body then moves, the writer will have to grant that the soul moves itself locally, but indirectly, by way of moving the body.

Another problem concerns heavy objects, which might seem to move themselves downward. Aristotelians would gloss this by saying that their natures give them a natural impulse down which acts unless impeded. A stock medieval Aristotelian response was that in such cases the stone is really moved by what removes the impediment and what gave the stone its nature. Making this a basis for (41), however, was not healthy for the cosmological argument. Since what gave the stone its nature need no longer exist, it is then compatible with (41) that there only *was* and no longer *is* a first, unmoved mover – unless one has some argument that this sort of mover cannot cease to exist.

Scotus argues that stones do move themselves downward, contending among other things that this theory faced fewer objections than orthodox Aristotelian alternatives (*Quaest. in Meta.* IX.14, esp. nn. 45–52). Suárez, in turn, would point to hot water spontaneously cooling – a point relevant because in his day 'motion' was held to include change of temperature (*Disp. metaphys.* 29.1.7). Thrown projectiles also pose a problem for (41), since the thrower is no longer in contact with them to move them along. The problem led eventually to impetus theories of motion (see Chapter 18); such later Thomists as John Capreolus, Suárez, and John of St. Thomas reconcile this case with their defense of (41) by taking the impetus as the mover's instrument in moving the projectile. Eventually, the entire problematic would be transformed by the concept of inertial motion. As Newton would see it, an object in everlasting motion would need no mover to keep it going were its motion not resisted: objects in uniform motion tend naturally to maintain their motion. This is less a shocking physical discovery than a shift in explanatory paradigm: Newtonian physics makes the claim that continued inertial motion is not the sort of thing to require a physical explanation. Thereafter, defenders of the argument from motion had to take their chances on the field of metaphysics.

Naturally, (42) was also controversial. The First Way does not reason that causal series must be finite and, therefore, there must be a first cause. It reasons instead that there must be a first cause and that therefore, as it were incidentally, the series must be finite. In fact, whether a series is infinite and whether it terminates in a first cause are independent matters; as Crescas notes, it is possible that a causal series be infinite and yet terminate (*Or Adonai*, tr. Wolfson, *Crescas' Critique*, p. 225). (A descending series of positive integers is infinite, and yet it terminates at the number one.) Suárez would go further, suggesting that it is possible that a causal series be infinite despite terminating on both ends – that is, that the first cause and the final effect be separated by infinitely many intermediate causes: for (he would reason) God is infinitely perfect, any species of angel is finitely perfect, and so between God and any species of angel is "room" for an infinite gradation of further degrees of perfection, to each of

which could correspond an angel involved in a causal series (*Disp. metaphys.* 29.1.30). Aquinas himself, although he thought a first cause could be proved, did not think the world could be proved to be finite in either the past or future. The reason he nevertheless felt sure of (42) was that he thought that the causal series in question was ordered *per se*.

In a *per se* series, every cause other than a first is caused to act by another member of the series: when a hand moves a stick which moves (say) a stone, the hand causes the stick to move the stone, and does not move the stone apart from doing so by moving the stick. Thus, in a *per se* series, all causes act together to produce the final effect: the stick moves the stone and the hand also moves the stone. In such a series, the hand moves the stone by means of the stick. Since each cause earlier in the series produces the final effect by means of causes later in the series, what goes on can always be described by plugging names of causes into a sentence-frame such as '__ . . . causes effect F by means of C by means of D by means of E . . . ,' where the blank is a place holder for the first cause. Thus, if there is no first mover in a *per se* series of movers, to record what is going on we need a sentence frame of the form '__ . . . moves F by means of C by means of D by means of E . . . ' but without any subject term to plug into the blank. With nothing plugged into the blank, the purported description of what is going on is not the kind of thing that can be true. So it seems that there cannot be a true sentence asserting the existence of a *per se* series of movers with no first mover.[23] Further, if in such a case there is nothing to plug into the blank before 'moves,' then nothing does the series's moving. If nothing does the moving, there are no movers. But, of course, a series of movers with no movers in it is a contradiction in terms. Thus it seemed clear to the medievals that in a *per se* causal series, there *had* to be a first mover. Of course, it is another question whether any such series had to be traced to an absolutely unmoved mover. If the human will can move itself, then human beings are first movers in any number of *per se* causal series – unmoved insofar as involved in those series, but moved in other respects. So even if (40)–(42) are all true, someone arguing from motion has more work to do before concluding the existence of something legitimately identifiable as God.

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[23] This paragraph is heavily indebted to Barry Miller, "Necessarily Terminating Causal Series," *Mind* 91 (1982) 201–15.

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DESCRIBING GOD

THOMAS WILLIAMS

The philosophical problem of describing God arises at the intersection of two different areas of inquiry. The word 'describing' makes it clear that the issue is in part a logical one – in the broad medieval sense of 'logic,' which includes semantics, the philosophy of language, and even some aspects of the theory of cognition. It is the problem, first, of forming an understanding of some extramental object and, second, of conveying that understanding by means of verbal signs. But the word 'God' also indicates that the logical problems involved in description are exacerbated, or perhaps that new problems arise, because of the nature of the extramental object that we are seeking to describe.

Given the enormous ingenuity with which logical problems were debated in the Middle Ages, it is not surprising that the problem of describing God would be worked out in detail – and that many thinkers would lose sight of the specifically theological context in which the problem was ostensibly set. We see here a familiar phenomenon. Once philosophers (even scholastic philosophers) have fully domesticated a problem, discussions of the problem seldom lay bare the practical urgency that alone made the question worth pursuing in the first place; it becomes a technical question, answerable by technical means. Yet, though it is not always in evidence, the practical upshot of the issue is never entirely forgotten, as John Duns Scotus reminds us in his curt dismissal of the view that we can at best say of God what he is not: "We do not have supreme love for negations" (*Ordinatio* I.3.1.1–2 n. 10).

Attempts to resolve the problem of describing God are ultimately efforts to "save the appearances": to accommodate within a philosophically defensible framework both the data of what are taken to be divinely revealed texts and the linguistic practices of believers. The appearances to be saved of course differ somewhat from one religious tradition to another. The Christian tradition, for example, faces distinctive problems that arise in understanding and describing

the triune nature of God.[1] Yet, despite these differences, the broad contours of the problem of describing God are recognizably similar in Judaism, Christianity, and Islam.

The chief reason for this similarity is that mainstream philosophical opinion in all three traditions was united in its view of those features of God that resist understanding and, consequently, expression. Philosophers taught that God is simple, which means that he lacks not only physical structure but also the *metaphysical* structure that our ordinary subject–predicate language implies. He is also far removed from the ordinary objects of the senses, which are the most accessible objects of knowledge and (for Aristotelians, at least) the ultimate source of the concepts that give meaning to our language. Finally, God has nothing in common with the objects of our ordinary experience; he shares no feature with them and belongs to no genus that includes them. Consequently, it is hard at first glance to see how any concepts or words that apply to the objects of our ordinary experience could also apply to God.

ANSELM

Anselm's approach to the problem of describing God makes a useful introduction to the topic, because Anselm sees the issues involved clearly and offers a resolution that does not depend on the more elaborate semantic theories to which later writers would appeal.[2] The issue initially arises for Anselm in the context of his natural theology in the *Monologion*. Noticing that his arguments all involve relating or comparing God to creatures – God is best, highest, and greatest; he is the creator and sustainer of all other things – Anselm asks whether he has yet managed to say anything about the *substance* of God: that is, about what God is in himself, rather than how God is related to other things (ch. 15). So he excludes relative terms from consideration and divides all other predicates into two mutually exclusive and jointly exhaustive classes. For any feature F, either (a) what has F is, as such, better than what lacks F, or (b) it is not the case that what has F is, as such, better than what lacks F. Following later medieval usage, let us call the features that fall in class (a) "unqualified perfections" (*perfectiones simpliciter*). The predicates that name the unqualified perfections – such predicates as 'living,' 'wise,' 'powerful,' and 'just' – can all be applied to God. Moreover, they do not express merely what God is *like* (*quale est*), but what

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[1] The scholarly literature has paid scant attention to how frequently medieval Christian writers situate their discussions of religious language in an explicitly Trinitarian context.

[2] The reading of Anselm's theological semantics presented here is defended at much greater length in Thomas Williams and Sandra Visser, *Anselm* (Oxford: Oxford University Press, 2008).

God *is* (*quid est*): in other words, these perfections are not merely predicated of God but are actually identical with God's nature. This follows from a general principle for which Anselm had already argued (in chs. 1–4): that for any F, if God is F, God is F through himself. Hence if God is just, for example, and whatever is just is just through justice, it follows that God is himself justice.

Anselm emphasizes, however, that our ability to use ordinary language to express the simple divine nature should not be taken to imply that there is any ontological overlap between God and creatures. God's being is utterly unique, because he alone has all his being from himself, whereas all other things have their being from him. And since every non-relative term that signifies God at all signifies God's being, every predicate we apply to God will have a very different *significate* in its theological and non-theological uses.[3]

To say that these predicates have a very different *significate* is not, however, to say that they have a very different *meaning*. Anselm does suggest, provisionally, that "if anything is ever said of [the supreme essence] in words that are common to other natures, their meaning is in no way common" (*Monologion* 65). But he cannot fully endorse this suggestion, since such discontinuity of meaning would (as he clearly sees) make all the arguments of his natural theology founder on the fallacy of equivocation. So he locates the discontinuity not in the meaning of our words, but rather in the nature of the connection between mind and world that signification establishes. He distinguishes between two ways in which a word might signify or bring something to mind: *per se* and *per aliud*. When a word signifies something *per se*, it brings that thing to mind directly or straightforwardly; when it signifies something *per aliud*, it brings that thing to mind only in virtue of some additional knowledge or some other feature of the context of utterance. The names that express unqualified perfections signify *per se* the perfections that we experience in creatures; they signify God *per aliud* by "hinting at" the divine nature "through a certain likeness" (ibid.). Our knowledge of God derived from Scripture or natural theology is the only reason that such names bring God to mind at all; even then, they do so only obliquely.

AL-FĀRĀBĪ AND AVICENNA

Classical Arabic philosophy puts particular emphasis on the claim that God is *intellect*. Both al-Fārābī and Avicenna connect God's intellectual nature with his immateriality. As al-Fārābī puts it,

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[3] It is this point about God's metaphysical uniqueness, rather than any skepticism about the success of theological language, that Anselm means to convey when he says that "if God ever shares any name with other things, undoubtedly a very different signification must be understood" (*Monologion* 26).

Because the First is not in matter and has itself no matter in any way whatsoever, it is in its substance actual intellect; for what prevents the form from being intellect and from actually thinking is the matter in which a thing exists. And when a thing exists without being in need of matter, that very thing will in its substance be actual intellect; and that is the status of the First.

(*Perfect State* I.1.6, tr. Walzer, p. 71)

He adds that, since matter is also what stands in the way of intelligibility, God is also intelligible. Since God is by nature actual intellect, and he cannot depend on anything outside himself to be what he is, it follows that God thinks himself. Avicenna offers a similar account of God as self-understanding intellect, but he argues explicitly for a claim that was merely implicit in al-Fārābī: namely, that God's self-understanding does not entail any duality in God. As Avicenna puts it, "a thing's being an intelligible does not necessitate that it is intellectually apprehended by some thing, that thing being another" (*Metaphysics* VIII.6.10, tr. Marmura, p. 286).

For al-Fārābī, much of what we can say about God is reducible to claims about God's intellectual nature. "God is knowing," "God is wise," and even "God is living" all mean the same thing: that God "understands the most excellent intelligible through the most excellent intellect" (*Perfect State* I.1.10; tr. Walzer, pp. 75, 77). Avicenna offers a more complex theory, according to which we can describe God in three ways. First, we can speak of God on the basis of his unique, individual, and necessary existence. Second, we can negate any likeness between God and creatures. Third, we can attribute to God relations to creatures as their first cause. Avicenna explains these three kinds of predication as follows:

[It is evident] that, if you ascertain the truth about him, [you will find] that, after [the fact] of his individual existence, he is only described by means of negating all similarities of him and affirming to him all relations. For all things are from him, and he shares nothing in common with what [proceeds] from him. He is the principle of all things, and he is not any of the things that are posterior to him.

(*Metaphysics* VIII.5.14, tr. Marmura, p. 283)

On the basis of God's individual existence we can say that God is perfect, since he is not deficient in any way, and that he is intellect, since he is immaterial. We can also say that God is good, because the good is what everything desires, everything desires existence, and God is perfect existence. Negative and relative predications include the concept or notion of God's unique necessary existence and add to it some negation or relation. For example, if "one, without due respect, says of the First that he is a substance, he would not mean [anything] but this existence with the negation of his being in a subject." And "if he says of

him 'powerful,' he would mean by it only that he is the Necessary Existent, to which is added that the existence of [what is] other than him truly comes about only from him in the manner that has been mentioned" (*Metaphysics* VIII.7.13, tr. Marmura, p. 296).

In the course of his discussion of describing God, Avicenna (unlike al-Fārābī) seems at times to understand the claim that God is intellect as meaning no more than that God is immaterial. He writes that if someone says God is "intellect, intellectual apprehender, and intelligible, he would mean in reality only that this pure being [is such that] the possibility of mixing with matter and its attachments is negated of him," and he identifies God's intellectuality with "the negation of matter from him" (ibid.). But since Avicenna holds that God knows genera and species (though not particulars), and that God's knowledge is creative, it is clear that there is more to God's being an intellect than simply lacking matter. The emphasis on immateriality in Avicenna's discussion of divine intellect simply reflects the basic Aristotelian requirements for intellectual cognition and his conviction that those requirements are perfectly fulfilled only in God.[4]

MAIMONIDES

For Moses Maimonides, it is the oneness of God – his uniqueness and simplicity – that systematically frustrates our ability to represent God in thought and to speak meaningfully about God. Maimonides discusses five kinds of affirmative predication. (1) We cannot predicate any *definition* of God, since "there are no previous causes to his existence, by which he could be defined" (*Guide of the Perplexed* I.52). (2) We cannot predicate a *part* of a definition, since God has no parts. (3) We cannot predicate any *qualities* of God, since God is not a substratum for accidents distinct from himself. (4) We cannot predicate any *relations* of God, for two reasons. First, such predications contradict the simplicity of God. (Maimonides thinks of relations as real accidents inhering in their subjects [*Guide* I.52].) Second, such predications contradict the uniqueness of God by implying that God is a member of a larger class of objects; to say

[4] The focus on divine intellect that we find in the Arabic Aristotelians from al-Fārābī onward is perhaps surprising, given the insistence of Islamic theology on the oneness of God. The best philosophical text on the oneness of God is al-Kindī's *On First Philosophy* chs. 3–4, which offers arguments reminiscent of Plato's in the *Parmenides* for the claim that God is the true One. For these arguments and their Platonic–Plotinian background, see Michael E. Marmura and John M. Rist, "Al-Kindi's Discussion of Divine Existence and Oneness," *Mediaeval Studies* 25 (1963) 338–52, and Peter Adamson, *Al-Kindī* (Oxford: Oxford University Press, 2006) ch. 3. (I am grateful to Deborah L. Black for impressing upon me the contested place of divine intellect in this tradition, and more generally for her help with this whole section.)

that God is more powerful than human beings is to place both God and human beings together in a single class of powerful beings (*Guide* I.56). Consequently, there is no similarity between God and creatures, and there is no truth at all in the affirmative predications that imply such similarity: "The man who affirms an attribute of God knows nothing but the name; for the object to which, in his imagination, he applies that name does not exist; it is a mere fiction and invention, as if he applied that name to a non-existing being, for there is, in reality, no such object" (*Guide* I.60).

There is only one permissible kind of affirmative predication concerning God: (5) we can predicate *actions* of God. Such predications do not purport to describe God as he is in himself; they merely attribute certain effects to the divine activity. Hence, the fact that many such predications are possible – owing to the multiplicity of God's effects – does not derogate from divine simplicity. Other affirmative predications are legitimate only insofar as they are taken as disguised negations. Negative predications do not imply plurality in God, and they "are necessary to direct the mind to the truths that we must believe concerning God" (*Guide* I.58). We can say, for example, that God exists, meaning that his non-existence is impossible, or that God is living, meaning that he is not inanimate like the four elements. Since human knowledge of God is limited to negations, which "do not convey a true idea of the being to which they refer" (*Guide* I.59), the best and most becoming response to the divine nature is silence.[5]

THOMAS AQUINAS

"We cannot know what God is," Aquinas says, "but only what he is not" (*Summa theol.* 1a 3 prooem.). In saying this Aquinas appears to embrace a position very close to that of Maimonides, and many contemporary interpreters, especially (though not exclusively) those influenced by Martin Heidegger, read Aquinas as a largely apophatic thinker. But in fact Aquinas accommodates both affirmative and negative predication about God, although the transcendence and simplicity of God entail that our affirmative predications are inevitably problematic.

Aquinas was definitely influenced by Maimonides, however, and it is instructive to consider first the grounds on which Aquinas rejects Maimonides's view.

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[5] See further Hilary Putnam, "On Negative Theology," *Faith and Philosophy* 14 (1997) 407–22; Kenneth Seeskin, "Sanctity and Silence: The Religious Significance of Maimonides' Negative Theology," *American Catholic Philosophical Quarterly* 76 (2002) 7–24; and Diana Lobel, " 'Silence is Praise to You': Maimonides on Negative Theology, Looseness of Expression, and Religious Experience," *American Catholic Philosophical Quarterly* 76 (2002) 25–49.

He offers three reasons.[6] First, if all our affirmative predications are disguised negations, we will have no reason to affirm some things of God in preference to others. If we can say "God is alive" to express the claim that God is not an inanimate object, why can we not equally well say "God is a body" to express the claim that God is not pure potentiality, like matter? Second, it would follow that all affirmative names predicated of God would be said of him only in a derivative or secondary sense. Third, this is simply not what people mean when they speak affirmatively of God: "for in saying that God is alive, they intend to convey more than just that . . . he differs from inanimate bodies" (*Summa theol.* 1a 13.2c).

To this last point Maimonides could well respond that people who say "God is alive" do indeed intend to convey more than a mere negation, but that is only because they are confused. Aquinas, however, believes he can save more of the phenomena than Maimonides could, accommodating not only what believers do when they talk about God but also what they take themselves to be conveying by such talk. The positive content that believers intend to convey in their ordinary practice of affirmative predication is grounded in a genuine relation of similarity between God and creatures.[7] Any perfection in an effect must be found in its cause: either according to the same intelligible character (*ratio*), if the cause is a univocal cause, or in a more eminent way, if it is an equivocal cause. God is the first efficient cause of all creatures, and he is an equivocal cause. So all the perfections of creatures "preexist in God in a more eminent way" (ibid., 4.2c). Consequently, "every creature represents God and is like him insofar as it possesses some perfection" (ibid., 13.2c).

Our power to describe things rests on our power to know them. Since creatures represent God and are like him, we can come to know God, and hence describe him, on the basis of creatures. But creatures represent God incompletely, in a fragmentary and deficient way, so both our knowledge of God and our names for God will be fragmentary and deficient as well. The deficiency of our names for God entails that no name can be predicated univocally (with exactly the same meaning) of both God and creatures. When we predicate 'wise' of a human being, "we signify a perfection that is distinct from the human being's

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[6] Aquinas uses these same three arguments (though with different examples) to oppose the view that affirmative predications about God are disguised relative predications: that to say "God is good," for example, is really to say that God is the source of the goodness of creatures. Aquinas found this view in Alan of Lille's *Regulae celestis iuris*.

[7] It is, to be sure, a one-sided relation: creatures bear a relation of similarity to God, but God does not in turn bear any relation to creatures. The denial of real relations *ad extra* in God is standard in medieval Christian thought. By contrast, Maimonides assumes that any genuine relation is *reciprocal*.

essence, and from his power and being and so forth" (ibid., 13.5c). In that way, the predicate 'wise' delimits an isolable aspect of the thing signified and brings that aspect fully under the sway of our understanding. Things are otherwise when we predicate 'wise' of God. In that case we do not intend to signify any perfection distinct from the divine essence, since there is no such thing in God. So even when we represent and name God as wise, God remains beyond our comprehension. Accordingly, we do not predicate 'wise' of God in the same sense (*secundum eandem rationem*) in which we predicate it of a human being.

In the technical language of thirteenth-century logic, our perfection terms have a "mode of signification" (*modus significandi*) that does not apply to God (*Sent.* I.22.1.2; *Summa theol.* 1a 13.3; *Summa contra gentiles* I.30). All of our concepts derive from composite creatures, in which the thing that has a form is distinct from the form itself. So our perfection terms either signify the form as simple but non-subsistent, as 'justice' does, or else signify the thing having the form as subsistent but not simple, as 'just' does, for instance, when it signifies a person who is just. Consequently, Aquinas says, "as far as their mode of signification is concerned, [our perfection terms] are not said properly of God; for they have a mode of signification that is appropriate for creatures" (*Summa theol.* 1a 13.3c). But this fact is not sufficient to render *all* our language equivocal when applied to God. The similarity between God and creatures that is grounded in God's causal activity means that the external nature signified (*res significata*) by our names for God does exist in God, although in a more eminent way than in creatures.

Thus, our names for God are neither purely univocal nor purely equivocal; they are analogical.[8] Analogical predication is intermediate between univocity and pure equivocity.[9] It happens when a single word is said of two things in a prior and a posterior sense. In the case of religious language, God is prior in reality, since creaturely perfections reflect the divine perfection. Accordingly, the names of perfections are predicated in a prior way of God, and indeed are said more properly of God than of creatures (*Summa theol.* 1a 13.6) – even though

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[8] The proper characterization of Aquinas's doctrine of analogy is endlessly disputed. The interpretation given here is strongly influenced by E. J. Ashworth, "Signification and Modes of Signifying in Thirteenth-Century Logic: A Preface to Aquinas on Analogy," *Medieval Philosophy and Theology* 1 (1991) 39–67, and "Analogy and Equivocation in Thirteenth-Century Logic: Aquinas in Context," *Mediaeval Studies* 54 (1992) 94–135, as well as by Ralph McInerny, *Aquinas and Analogy* (Washington, DC: Catholic University of America Press, 1998).

[9] So Aquinas expressly says at *Summa theol.* 1a 13.5, notwithstanding the incredulity of Kevin L. Hughes, "The *Ratio Dei* and the Ambiguities of History," *Modern Theology* 21 (2005) p. 659 n. 7. The qualification "pure" is necessary because thirteenth-century writers classed analogical predication as a species of equivocation, corresponding to Aristotle's *pros hen* homonymy.

God is posterior in our knowledge and those names are originally imposed on the basis of our experience with creatures.

Aquinas's account of theological language suggests a close connection between semantics and cognition: our ability to use language concerning God rests on our ability to understand God, and since our understanding of God is inevitably fragmentary and deficient, so too is our language about God. His account also suggests a close connection between semantics and ontology: the possibility of non-equivocal speech about God rests upon the real similarity of creatures to God, and the impossibility of univocal speech about God rests upon the irreducible ontological diversity of God and creatures. Later medieval thinkers will suggest loosening one or both of these connections. The remainder of this chapter looks first at the connection between semantics and cognition, and second at the connection between semantics and ontology.

NAMING AND KNOWING[10]

Henry of Ghent follows Aquinas in arguing that our knowledge of God is fragmentary and incomplete in ways that make our language about God problematic, but Henry does not tie naming God to knowing God quite so closely as Aquinas had. It is possible for us to have a more adequate understanding of something than we convey in speech. Imagine two people reciting, with full conviction, the so-called Athanasian Creed. One of them is a regular person in the pew; the other is a brilliant systematic theologian. The two of them speak with equal precision, but the theologian has a far richer understanding of what is being said. Moreover, individual knowers may be incapable of expressing something to the extent to which they understand it. For example, we can grasp the immensity of God more adequately than we can express it in language (*Summa* 73.10).

Where Henry is concerned with the ways in which our knowing is keener than our naming, Scotus emphasizes the possibility of naming God more adequately than we know him. He writes: "This proposition, which is common to many opinions – I mean that 'As God is understood, so too is he named' – is false if taken strictly, because it is possible for something to be signified more distinctly than it is understood" (*Ordinatio* I.22, q. un., n. 4). This has to be the case, since otherwise we would be unable to signify anything in the category

[10] For additional thirteenth-century discussions of the connection between naming God and knowing God, see Alexander of Hales, *Summa theol.* I.2.1, tr. un. q. 1.1c; Bonaventure *Sent.* I.22, a. un. q. 1c; Giles of Rome *Sent.* I.22 princ. un. q. 1 ad 2; and Richard of Middleton, *Sent.* I.22.1c. See also E. J. Ashworth, "'Can I Speak More Clearly Than I Understand?' A Problem of Religious Language in Henry of Ghent, Duns Scotus, and Ockham," *Historiographia Linguistica* 7 (1980) 29–38.

of substance; we could signify only the feature of the substance on the basis of which the name was originally imposed. Thus, for example, the name 'rock' (*lapis*) would not signify anything in the genus of substance, but only something in the genus of action – namely, the "foot-hurting" (*laesio pedis*) on the basis of which the name was imposed. And we can signify distinctly a particular substance that underlies accidents as 'this being,' even if our only quidditative concept of the substance is the concept of *being*, which is the most general or common concept available. In the case of religious language, a name proper to God, distinctly signifying the divine essence as "this essence," might be imposed by God himself, or by an angel that knows God, or even by someone in this life (*Ordinatio* I.22, q. un., n. 10), even though we do not *know* God as "this essence," but only as (say) "this infinite being that does not depend on anything" (*Lectura* I.22, q. un., n. 4).

In contrast, William of Ockham's treatment of the question is much more explicitly tied to his semantic theory. For Ockham, there are some words that signify extramental things directly – that is, not through any mediating mental conception. This is not to say that such words do not have to be associated with a concept to be meaningful, only that they directly signify (that is, supposit for) things, rather than for the associated concepts (see Chapter 11). Since this is the case, "anyone who can genuinely understand that one thing is distinct from another can impose a name for the purpose of distinctly signifying that thing" (*Ordinatio* I.22, q. un. [*Opera theol.* IV: 55]); the adequacy or inadequacy of the person's conception of that thing is entirely beside the point. For instance, with the word 'man' I can distinctly signify someone who does not even exist yet. Or, I can impose the name '*a*' to signify whatever animal I am going to run across tomorrow. For me, and for anyone else who is willing to adopt this imposition, '*a*' will signify that animal, even though I do not distinctly understand the animal when I impose the name (and may well not distinctly understand it even when I run across it tomorrow). Accordingly, since human beings in this life "can genuinely understand and know that God is distinct from everything else" (ibid.), we can impose a name that signifies God distinctly. We can distinctly signify what we do not distinctly understand.

ANALOGY AND UNIVOCITY

The essential feature of Aquinas's theory of analogy is that a single term is predicated *per prius et posterius*: of God in a prior way and of creatures in a posterior way. Henry of Ghent gives a more detailed account of religious language, but his basic approach is very much like Aquinas's. Henry argues that perfection words are used in a prior way of God, reflecting the fact that

such perfections are in creatures only as effects of divine perfection. It is this metaphysical relation of participation or resemblance that both saves theological language from pure equivocity and also bars univocity. Henry goes a step further than Aquinas, however, by settling a question that Aquinas had left unresolved: is an analogical term subordinated to a single concept, or to more than one? Henry holds that in an analogical predication there are two distinct, though closely related, concepts.[11]

Scotus is hostile both to predication *per prius et posterius* and to Henry's claim that a distinct concept is involved in predicating perfection terms of God. In his early logical works, Scotus argues against predication *per prius et posterius* in ways that do not depend on any specifically religious claims (*Quaest. super Praedicamenta* 4; *Quaest. super librum Elenchorum* 15).[12] But these arguments are nonetheless relevant to our topic, since they rule out analogy as a mean between univocity and equivocity. They thus provide the background to Scotus's later development of the doctrine for which he is best known: the claim that all unqualified perfections are predicated univocally of God and creatures.

Scotus has a number of arguments for univocal predication and against the doctrine of analogy (*Ordinatio* I.3.1.1–2, nn. 26–55). The most widely discussed is his argument that one can be certain that something is a being and yet uncertain whether that thing is a finite or an infinite being. Such a state is possible only if the concept of *being* is univocal between finite and infinite. (Compare: I can be certain that someone is a mother while being in doubt whether she is a good mother or a bad mother. This combination of certainty and doubt is intelligible only on the supposition that 'mother' is predicated univocally of good mothers and bad mothers.)

Moreover, according to Scotus, any recognizably Aristotelian view of concept formation entails univocity. Aquinas and Henry of Ghent agree that all our concepts are derived ultimately from our experience of sensible creatures. But, Scotus argues, if this is the case, then the concepts that give meaning to our language about God will also derive from creatures. They will not merely be *like* the concepts that come from creatures, as in analogous predication; they will have to be the very same concepts that come from creatures, which entails univocal predication. Either we have the same concepts for God and creatures, or we have no concepts of God at all, in which case it would be impossible to speak about God.

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[11] For discussion and references, see Ashworth, "Analogy and Equivocation," p. 124.

[12] See Robert Prentice, "Univocity and Analogy According to Scotus's *Super libros Elenchorum Aristotelis*," *Archives d'histoire doctrinale et littéraire du moyen âge* 35 (1968) 39–64, for a discussion of Scotus's early views.

In a similar vein, Scotus argues that univocity is necessary to preserve the character of theology as a science: that is, as an argumentative discipline. Just as our power to describe God rests on our having concepts under whose extension both God and creatures fall, so too our ability to draw inferences about God depends on the univocity of the terms in which we carry on argument and the unity of the concepts that underwrite the intelligibility of such language. Without univocity, any attempt to draw inferences about God will founder on the fallacy of equivocation.

Scotus's doctrine of univocity breaks the close association between semantics and ontology – between naming and knowing – that we have seen not only in Thomas Aquinas and Henry of Ghent but in their Muslim and Jewish predecessors as well. These other thinkers all insisted, in their various ways, that some change of meaning or conceptual slippage or linguistic indirectness had to result from our attempts to apply to God the words and concepts by which we name and understand creatures – precisely because creatures are irreducibly distinct from God. These divergences from ordinary usage were, so to speak, the semantic epicycles apart from which the appearances could not be saved. For Scotus, by contrast, our describing God requires no such epicycles. Ordinary words, with their ordinary meanings, apply straightforwardly to a metaphysically extraordinary God.

PROVIDENCE

HESTER GOODENOUGH GELBER

Two texts framed medieval Christian discussions of the idea that God exercises providential care and governance over the created order: the biblical Book of Wisdom and Boethius's *Consolation of Philosophy*. In the Book of Wisdom, the term 'providence' occurs at 6:17, where Wisdom "presents herself in all providence," and again at 14:3, which says: "Father, your providence rules because you have provided a way even on the sea and a most solid path among the waves." These passages provided both warrant and mandate for theologians to investigate how God's omniscience and omnipotence were manifest in the providential governance of the created order; it was Boethius, however, who set the philosophical parameters for that investigation.

Boethius defines God's providence as the "unfolding of temporal events as this is present to the vision of the divine mind" (*Consolation* IV prose 6). He goes on to claim that:

Fate moves the heavens and the stars, governs the elements in their mixture, and transforms them by mutual change; it renews all things that are born and die by the reproduction of similar off-spring and seeds. This same power binds the actions and fortunes of men in an unbreakable chain of causes and, since these causes have their origins in an unchangeable providence, they too must necessarily be unchangeable. In this way things are governed perfectly when the simplicity residing in the divine mind produces an unchangeable order of causes. This order, by its own unchanging nature, controls mutable things which otherwise would be disordered and confused.

(ibid.)

Boethius grapples with the question of how such an unbreakable chain of causes grounded in the divine mind could be compatible with free will and human accountability for moral evil (ibid., V prose 3). He has his interlocutor, Lady Philosophy, claim that there is free will, "and that no rational nature can exist which does not have it. For any Being which by its nature has the use of reason, must also have the power of judgment by which it can make decisions and, by its own resources, distinguish between things that should be desired and

things that should be avoided" (ibid., V prose 2). Boethius famously concludes
that because God's knowledge is outside time and God knows everything as
"present" in itself, the only necessity that attaches to acts of free will is a
"conditional necessity" of the sort that arises from the necessity of the principle
of non-contradiction: if a woman chooses to be sitting, she must necessarily
be sitting, not standing, because to stand and sit at the same time would violate
the principle. If that woman chooses to sit, no necessity compels her choice
and she could just as easily have chosen to stand. The "absolute freedom" of
her own nature is not compromised in any way as a result of God's necessary
knowledge of everything that happens (ibid., V prose 6).

Yet to square human freedom with divine knowledge is not yet to square
it with divine providence. Boethius's contention that God's providence orders
everything through unbreakable chains of causes without compromising the
absolute freedom of judgment that rational creatures exercise through freedom
of the will created a philosophical conundrum for medieval schoolmen. What
is the nature of causality, and what is the nature of the will in relation to
causality that would make this position tenable? Throughout the Middle Ages,
discussions of divine providence revolved around these issues.

Although Arabic philosophy had significant impact on Latin scholastic phi-
losophy and theology, both positively and as a goad for deeper reflection where
those in the Christian tradition disagreed with their Muslim counterparts, there
is not much direct dialogue regarding providence. Matthew of Aquasparta
expressed concern that Averroes had restricted providence to species rather
than extending it to individuals, and Thomas Bradwardine cited Arabic thinkers
along with everyone else in massive lists of authorities to justify his determinist
views. Nevertheless, it was the scriptural warrant for taking up the term and
the Boethian legacy that provided the imperative and the frame for the ensuing
discussion. Although Islamic and Jewish authors discuss the problem of divine
foreknowledge (see Chapter 29), the question of how to reconcile human free
will with God's providential oversight over every particular aspect of creation
was a more pressing question among Latin authors than among the best-known
Arabic ones. What follows provides a short history of the term 'providence' as
Christian theologians understood it during the high Middle Ages – the thir-
teenth and fourteenth centuries – in light of the problem Boethius bequeathed.

THE THIRTEENTH CENTURY

The recovery of Aristotle's natural philosophy in the Latin West (and, in par-
ticular, his discussion of causality in *Physics* II.3) provided a new vocabulary for
analyzing providence. Over the course of the thirteenth century, Alexander of
Hales, Thomas Aquinas, and Matthew of Aquasparta adapted the Aristotelian

distinction between efficient, formal, material, and final causality to probe the relation between divine governance and human freedom.

Alexander of Hales

The first book of Alexander's *Summa theologica* defends at length the idea of a providential order. He argues that power, wisdom, and goodness are all attributed to God through the nature of his causality. Thus, "power is attributed to him as he is the efficient cause, wisdom as he is the formal, exemplary cause of things, and will or goodness as he is the final end" (I.1.5.2.3.1, ed. Quarrachi, I: 285a). Importantly, Alexander claims that God's formal and final causality – but not his efficient causality – are operative in the exercise of divine providence. He calls attention to the root and prefix of the term *providentia*: the root *videntia* connects with divine wisdom, and thus with formal causality; the prefix *pro* denotes the causality of governance or ordination of God's good pleasure or will, and thus God's final causality (ibid., I: 286b–87a). With respect to texts that seem to equate providence with God's power and thus with efficient causality, Alexander argues that God's power in these instances should be understood not as separate from God's wisdom and goodness or will, but as integral to them. Hence it is not God's power as an efficient cause or agent of change that is the causality directly operative in providence (ibid., I: 287b). Alexander's analysis, unlike that of either Boethius before him or Aquinas after him, emphasizes that understanding providential causality requires defining the roles of both the divine intellect and the divine will.

Restricting providence to formal and final causality opens space for freedom of the will: God's governing in this way enables the unfolding of the divine plan for creation without God's coercing particular acts of human willing as their immediate efficient cause. Alexander borrows a distinction from John of Damascus between providence understood as "acceptation" and providence understood as "concession" to work out the exact relationship. The providence of acceptation occurs when providence encounters no resistance, as in the case of natural things (like the sun's rising and setting) that operate in an orderly way and cannot be otherwise. The providence of concession comes into play where there can be resistance, as in the case of creatures with free will. God concedes to those with free will the power freely to consent to or reject good and evil and God does not coerce such choices (ibid., I: 294b); nevertheless, these acts of free will do not escape from providential governance or necessity because of their freedom. To explain this, Alexander invokes a distinction between two forms of relative necessity: "necessity *ab hoc*," which is the necessity that arises from force, violence, or the intrinsic nature of things, and "necessity *ad hoc*," which is the necessity that arises after the fact, imposing order on what has previously

come about (ibid., I: 302a–b). In the case of acts of free will, whether the will chooses well or ill, those acts are always providentially ordered to some good after the fact, whether that be the good of just punishment or of just reward (ibid., I: 302b, I: 285a–b).

Thomas Aquinas

Like Alexander, Aquinas seeks to reconcile God's providential governance with Aristotelian causality; like Boethius and unlike Alexander, however, he locates providence in God's intellect and not in both his intellect and his will. Aquinas argues that God conceives of the overall good of creation as the order all created things have toward their end, and especially toward their ultimate end, the divine goodness itself. The good each individual thing has through its substantial form is complemented by its innate ordering to an end, which, in turn, is ordered to the greater overarching divine good, and the whole system is enacted according to God's governance. Hence, prior to creation, God understood the order of everything to its ultimate end. Aquinas concludes that "the understanding of the things to be ordered to an end is in a strict sense providence" (*Summa theol.* 1a 22.1c).

This exposition of providence follows the Aristotelian formulation of final causality as the end or sake for which something is done – a principle of change located in reason, not action (and by implication not the will) (*Phys.* II.3, 194b33–95a3; II.9, 200a5–24). God acts providentially inasmuch as he is the final cause of creation. Thus, divine providence completes Aquinas's analysis of God's creative act in terms of the Aristotelian picture of causality: God is not only the first efficient and the first formal cause of everything as enacted through his will, but also, through his reason, the ultimate final cause (*Summa theol.* 1a 19.4c).

Aquinas rejects the Aristotelian legacy that restricted divine final causality to species, exclusive of individuals. He asserts that divine providence rules all things – not just universal natures, but even singulars:

That this is so is evident: for since every agent acts on account of an end, the ordination of effects to an end extends itself as far as the causality of the first agent . . . But the causality of God, who is the first agent, extends to every being, not only as to the ground of their species but also to their ground as individuals, not only to incorruptible things but also corruptible things. Whence it is necessary that everything that has being in some way is ordained by God to an end.

<div align="right">(ibid., 22.2c)</div>

As Boethius had shown, however, such complete divine control over events threatens to preclude human free will as a part of the providential order. In

response, Aquinas argues that God does not determinately fix in advance the operative power of human willing to one outcome. Human beings are rational creatures who deliberate and choose through free will. But, because the act of free will is itself reduced to God as its ultimate cause, it is necessary that those things done from free will fall under divine providence. The "providence" of human beings is contained under the "providence" of God, as a particular under a universal cause (22.2 ad 4).

A form of "gentle" compatibilism emerges when Aquinas makes clear just how God's exertion of providential power extending even to each individual is conjoined with the human exercise of free will. Discussing the text of Romans 8:20 ("all things work together for the good for those who love God"), he asserts that "God has providence over just human beings in a more excellent way than he does over the impious, in that he allows nothing to happen to them that would ultimately obstruct their salvation" (ibid.). Those whom God has elected can exercise their free will, but the circumstances under which they exercise it are such that God preserves their eventual salvation. This form of compatibilism is "gentle" because, although God determines the circumstances under which each human being wills and he knows how each will choose under those circumstances, he does not in any way interfere with the act of willing itself. Hence, whereas Alexander had looked to God's ultimate retributive justice to bring all free acts of will under the aegis of providence, Aquinas perceives God as playing a more directive role to safeguard the predestined salvation of the just.

In general, Aquinas's systematic exposition of providence provides for an overarching order immediately present in God's understanding and understood in terms of final causality; it is also worked out in terms of secondary causes and in terms of both necessary and contingent proximate causes that include room for both necessary and contingent effects (ibid., 22.4c). God's governance is achieved through such secondary causes, whose effects are perfectly foreseen (ibid., 22.3c). In addition, God's goodness guarantees space for human free will and its contingent willing as integral to the perfection of the divine order. God contains the outcome of such acts of free will by managing the causal contexts within which people exercise their acts of free choice, preventing any circumstances that would keep those chosen for salvation from exercising their free wills in a way sufficient for that end.

Matthew of Aquasparta

Toward the end of the thirteenth century, Aquasparta compiled a set of disputed questions on providence. In these questions, he argues against the "many errors of the ancients" with considerable vehemence: "Having repulsed, rejected and

repudiated these errors, one should say that the whole world is undoubtedly governed by divine providence, as are all those things that are in the world: superior and inferior, heavenly and terrestrial, incorruptible and corruptible, spiritual and corporeal, universal and particular, natural and voluntary" (q. 1, ed. Gál, pp. 240–1).

The ancients were Aristotle, Averroes, Cicero, and others who espoused limits on the reach of providence into the particular workings of the world (ibid., pp. 237–40). It is not clear whether he has more recent Aristotelians in his sights. But his assertion of God's causal power remains Aristotelian in form, even while combating Aristotelian restrictions on the extent of that power. God is the cause of things according to a threefold kind of causality: efficient, formally exemplary, and final: "For God makes everything by himself and through himself and for himself, just as the Apostle says in Romans 11:36, 'Since all things are from him and through him and in him; glory to him'" (ibid., p. 241). Divine providence is evident with respect to the world because of its perfection, its beauty and propriety, the apparent rules governing change, and the mutual connections among things. All of the completeness, proportion, regularity, and ordered relationships within the world evince God's providential intention (ibid., pp. 242–6). God does not impose undue necessity on the world through his providential guidance, however, because God's will is open to more than one effect, and God acts through a chain of mixed causes, some necessary and some contingent. The effect of any such mixed chain is assigned the mode of contingency, not necessity. Thus, even though divine providence is a first cause that acts on everything else through itself, its effects do not happen of necessity because providence also operates to cause its effects in conjunction with secondary, inferior, and particular causes (ibid., ad 7).

Aquasparta thus makes space for according special status to rational creatures with free will. Where irrational creatures are concerned, providence preserves them because preservation of their species is necessary for the perfection of the world. Since irrational creatures lack free will, they are not subject to praise or blame and are not suitable subjects for beatitude. Furthermore, they are preserved not indefinitely, but only as long as the world lasts. Rational creatures, however, do have free will and are fit for beatitude and immortality. With free will, they have dominion over their acts, and their acts are thus laudable or blameworthy, meritorious or sinful. Only merits qualify someone for beatitude, moreover, and merits consist in observance of some law; therefore, law is given to rational creatures, and observance of legal precepts results in beatitude. Still, even those who sinfully transgress those precepts may be set free through prayers. Citing John of Damascus's distinction that we saw Alexander employ earlier, Aquasparta claims that God provides for rational creatures "according

to acceptance and permission," either rewarding or punishing them according to the laws of justice, so that if they depart from the assigned order, they will necessarily fall back into another order (ibid., pp. 247–8).

As we have seen, an Aristotelian analysis of divine providential causality appears to be the norm at the end of the thirteenth century. Aquasparta, like Aquinas, provides space for contingency through secondary causes. Some differences are also apparent, however. For one, where Aquinas had specifically identified providence with God's exercise of final causality, Aquasparta identifies it with the exercise of God's causal power more generally. Also, where Aquinas, citing Romans, had emphasized God's management of the circumstances surrounding those whom he has chosen for election so that nothing will impede their eventual salvation, Aquasparta turns away from compatibilism and lays the emphasis on God's provision of laws and on the free ability people have to conform to them.

THE FOURTEENTH CENTURY

With the onset of the following century, John Duns Scotus, William of Ockham, and their successors at Oxford adopted a number of ideas that greatly strained thirteenth-century views about providence. First, Scotus rejects the idea that contingency might arise at the level of secondary causes, insisting that for contingency to exist in the world it must originate in God's own contingent will (*De primo principio* IV.15).[1] Second, and even more fundamentally, Ockham criticizes Aristotle's analysis of causality as a model for understanding God's causal relationship with the world. Finally, an entirely different model for understanding providence emerges with the spread of what Heiko Oberman has called "covenantal theology."[2]

John Duns Scotus

In the *Ordinatio* version of his lectures on the *Sentences*, Scotus directs a powerful attack against the idea that there could be any "simply necessary natural connection of cause and effect in creatures." He argues that, since every effect in the natural order depends upon the first cause, and the first cause only causes contingently, every subsequent cause must also cause its effects contingently. The necessity that seems to obtain within the natural order in some chains of

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[1] See Hester Goodenough Gelber, *It Could Have Been Otherwise* (Leiden: Brill, 2004) pp. 123–38.

[2] Heiko Oberman, *The Harvest of Medieval Theology* (Cambridge, MA: Harvard University Press, 1963).

causality is only a relative (*secundum quid*) form of necessity, ultimately sub-ordinate to the overarching contingency that anything God causes could be otherwise than it is (*Ordinatio* I.8.2 q. un [ed. Vatican, IV: 328]). Scotus's cri-tique entails that contingency arises at the level of God's causality, not at the level of secondary causes, as Aquinas had proposed. Providence – not an idea that Scotus seems to have addressed using that very term, but which he in effect discusses under the heading of divine willing – functions in the immediate present with the cooperation of the contingent and free human will as one part of the single moment of eternal creation to effect what is.[3] Scotus's critique nullifies the idea of divine "foreseeing," so that whatever 'providence' might mean, it cannot mean something prior to the immediacy of God's single act of contingent creation. His apparent disinterest in the term 'providence' makes sense if God wills everything all at once in a single moment of eternity and if the divine and human wills are cooperative co-causes of human action within that eternal moment. It would take some explaining to make a space for the term 'providence,' and Scotus instead simply chooses not to use it.

William of Ockham

In his *Quodlibetal Questions*, Ockham disputes the traditional assumption that Aristotelian causality is demonstrably applicable to God. At best, he claims, human reason can be plausibly persuaded only that God is the first efficient cause (*Quodlibet* II.1, IV.2). When it comes to final causality, there is even less to be said. Ockham defines final causality in *Quodlibet* IV.1:

> I say that the causality of the end is nothing but to be loved and desired by an agent efficiently, on account of which that which is loved is put into effect. Whence just as the causality of matter is nothing but to be informed with a form, and the causality of form is nothing but to inform matter, so the causality of the end is to be efficiently loved and desired, without which love and desire there would be no effect.
>
> (*Quodlibet* IV.1 concl. 1)[4]

He specifically sets his view apart from the more traditional definition, familiar from Aquinas, of final causality as the "end intended by the agent, which although it is first in intention, is yet last in execution; and such an end is always the produced terminus or produced operation" (IV.2 art. 1).[5] Ockham argues

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[3] See William Frank, "Duns Scotus on Autonomous Freedom and Divine Co-Causality," *Medieval Philosophy and Theology* 2 (1992) 142–64.

[4] On Ockham's views regarding final causality in general, see Marilyn McCord Adams, "Ockham on Final Causality: Muddying the Waters," *Franciscan Studies* 56 (1998) 1–46.

[5] See also Ockham, *Expositio Phys.* II.5 sec. 6.

that God is clearly not such an end because then God would be posterior to that which is the end, as the produced effect is posterior to the producing agent (ibid.).

Ockham does allow that we can know with certainty that God is a final cause of effects produced by free agents here on earth, but he explains that this is because human beings have the evident experience of acting in order to honor God (ibid., concl. 3).[6] If the human will determines its acts out of love for God, then God as the object of the will's love will serve as the final cause of such a will. But this is a far cry from the traditional view of final causality as operative on the created order, drawing each thing of necessity to its preordained end.

Covenantal theology

While Aristotelian causality was undergoing scrutiny in the fourteenth century in ways that made the thirteenth-century approaches to providence less feasible, another way of conceiving the relationship between God and human beings was taking shape that could substitute for the thirteenth-century view – namely, covenantal theology.[7] Covenantal theology binds together the moral order through a pact or covenant God makes with the faithful. Although the requirements that God places on believers are not intrinsically worthy of merit, God has bound himself to accept them as meritorious under his various covenants. Under this pact, God promises that he will not deny grace to those who do their best to conform their wills to what they believe he wants them to do as revealed through Scripture and through the determinations of the church.[8]

A leading adherent of covenantal theology is the Dominican Robert Holcot.[9] As noted at the start of the chapter, the Book of Wisdom provided the scriptural touchstone for discussions of providence, and Holcot wrote a lengthy and much circulated commentary on it. Although Holcot, like many of his British contemporaries, omitted treatment of the term 'providence' in his other works, this scriptural text made addressing it mandatory in his commentary. Holcot

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[6] Ockham, *Quaest. variae* 4, provides arguments for a position something like his own, which the editors suggest is that of the Scotist John of Reading, meaning that Ockham may not have been the first to propose such a view (see *Opera. theol.* VIII: 101 n. 12). For discussion, see Marilyn McCord Adams, *William Ockham* (Notre Dame, IN: University of Notre Dame Press, 1987) I: 143–313.

[7] Oberman's *Harvest of Medieval Theology* documents the emergence of covenantal theology in the fourteenth century, portraying Scotus, Ockham, Robert Holcot, and a number of others as proponents.

[8] See William Courtenay, "Covenant and Causality in Pierre d'Ailly," *Speculum* 46 (1971) pp. 116–19, and Gelber, *It Could Have Been Otherwise*, pp. 191–200.

[9] Oberman, *Harvest of Medieval Theology*, pp. 235–43.

explicates Wisdom 6:17 ("In every providence [Wisdom] proffers herself") as follows:

In every kind of providence, God proffers himself to the faithful, informing them about what is expedient for them to ponder, what to practice, what to expect. The Holy Spirit, therefore, wishes to say that God himself proffers himself to the faithful in every providence – that is, he bestows grace, not only by ordaining the present well, but also by providing for the future.

(*Super libros Sapientiae* VI.82, ed. Hagenau, f. o8vb)

This explication could easily continue with a fairly traditional account of providence; yet, when Holcot sets out the various ways providence functions, his explication is anything but traditional. He distinguishes four kinds of providence necessary for the perfect governance of human life: the providence of legal statutes, of temporal treasure, of personal merits, and of rule-governed responses, each of which requires human beings to live up to certain God-given responsibilities (ibid.). Rather than seeing providence as God's final causality or as a constantly guiding hand, Holcot interprets it as God's proffering human beings instructions, obligations, and responsibilities – in other words, a covenantal relationship that they will be answerable for at judgment. Each type of providence has a particular provenance. So, for example:

the first providence is instituted to make kings, princes, prelates, counselors, and royal ministers institute laws fairly such that they apply consistently and in common to both rich and poor. And this providence ought to proceed from the treasury of sacred scripture. For a law in opposition to sacred scripture, to the decrees of the church, and to good customs ought to be of no account.

(ibid.)

The second providence, in turn, enjoins all those with wealth at their disposal, and clerics in particular, to care for the poor. The third providence lays responsibility on everyone to live virtuously, returning good for evil, providing alms and fasting. The fourth providence, finally, asks all to live their lives giving thought to the state of their souls at death so that they will not sin, and so that God may judge them worthy of salvation (ibid., ff. o8vb–p1rb).

Although Holcot cites Cicero, Augustine, and Boethius, he hangs his discussion on a latticework of scriptural citations commensurate with his view that providence lies in God's revealed instructions to us. Where Aquasparta had connected providence with the order evident in the natural world, and he, Alexander, and Aquinas had tied it to Aristotelian causality, Holcot turns the discussion back to revelation as the source for God's instructions to human beings about what he expects of them.

Thomas Bradwardine took deep offense at the covenantal theology of his time, arguing strenuously against those who, in his view, attributed too much power to human beings at the expense of God's imminent action in the world. As part of his critique, he brought back the idea of providence and put it at the center of his theology. In his *De causa Dei* (*On Behalf of God* [1344]), Bradwardine throws down the gauntlet to those he calls the "Pelagians" of his age, among whom he includes Ockham, Holcot, and other covenantal theologians.[10] Bradwardine aims to defend God's effective causal engagement with every facet of the created world order, and the idea of divine providence figures prominently in his argument. When he reaches chapter 27 of Book I, asserting that "everything happens from divine providence," he has already built an argument about the nature of God's knowledge and his unimpedible will that makes his conclusion about God's providence seem undeniable. He begins the chapter with a definition: "For what is providence except the intellect seeing or foreseeing at a distance, along with the willing or prewilling of the will at a distance?" (ed. 1618, p. 261). He then lists five previously demonstrated propositions in support:

(1) God has distinct true knowledge of everything (I.6).
(2) The divine knowledge, which is his simple understanding, is also truly the cause of everything that is made and not just the cause *sine qua non* (I.17, coroll. 220).
(3) God has effective positive or negative volition in regard to everything (I.22).
(4) Both the knowledge and the will of God are immutable in every way (I.23).
(5) The divine will is universally efficacious, insuperable, and necessary in its causing, and can in no way be impeded or thwarted (I.10).

Bradwardine concludes: "It is therefore evident that everything that happens, happens from divine providence" (I.27, ed. 1618, p. 261). The unimpedible and immutable divine will, as the efficient cause and mover of all motion, directly and efficaciously causes everything that happens, whether God acts as the most loving progenitor, nurse, or vivifying conserver of everything in creation (I.9, I.22).

Bradwardine compares God's providential care to the responsibilities of a paterfamilias, who provides for everyone and everything in his household so that there is nothing out of order. In support of such proper governance, he cites Aristotle's discussion of the well-ordered household in *Economics* I.6, where Aristotle writes that "masters ought to rise earlier than their slaves and retire

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[10] Obermann, *Harvest of Medieval Theology*, identifies Ockham and his followers as those most closely identified with covenantal theology. A touchstone for identifying a member of this group would be use of the phrase *facere quod in se est*, or doing the best that is in one, as what is needed for salvation within God's covenanted agreement.

to rest later, and a house should never be left unguarded any more than a city, and when anything needs doing it ought not be left undone, whether it be day or night" (1345a13–16). So Bradwardine says: "How much more that great *Paterfamilias*, of whose abundance there is no end, and of whose wisdom there is no measure, whose goodness is immense, will govern his whole great house with all it contains, providentially for all time?" (*De causa Dei* I.27, ed. 1618, p. 262). Bradwardine ends his discussion with a reference to Matthew 10:29 and a rejection of Epicurean chance: "Since the Savior says a sparrow does not fall to earth without the will of God . . . even the most common and humble particles are ruled by divine providence, and not disturbed by fortuitous motions, whose causes we cannot comprehend" (ibid., p. 264).

There are several striking aspects of Bradwardine's view. God's providential care for the world is a necessary adjunct of his omniscient intellect and omnipotent will, and at the same time it is a personal loving concern for even the least of creatures. Divine providence is self-evident, all-pervasive, and intimate. But while Bradwardine cites quantities of authorities for his position, including Scripture, the Church Fathers, and Greek and Arabic philosophers, his take on providence is atypical and constitutes part of his strong reaction against the scholastic currents of his day. God's efficient causality extends to everything, even to the human will. Nothing escapes the necessity his care imposes (III.1). Of course, this leads directly to questions about human freedom. Free will is not the freedom to enact different outcomes, but rather the "spontaneous rational capacity to choose the good" (II.2, ed. 1618, p. 448), a freedom completely in harmony with God's effective and efficient necessitation of the will's choice. Bradwardine rejects the idea that the human will could in any way resist the divine will. This view, a minority one in Bradwardine's own time, foreshadows the stress the Protestant reformers would put on God's providential presence in every aspect of human life.[11]

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[11] See Alexandra Walsham, *Providence in Early Modern England* (Oxford: Oxford University Press, 1999); Michael Winship, *Seers of God: Puritan Providentialism in the Restoration and Early Enlightenment* (Baltimore, MD: Johns Hopkins University Press, 1996).

THE PROBLEM OF EVIL

ELEONORE STUMP

THE AUGUSTINIAN BACKGROUND

The problem of evil is raised by the combination of certain traditional theistic beliefs and the acknowledgment that there is evil in the world. If, as the major monotheisms claim, there is a perfectly good, omnipotent, omniscient God who creates and governs the world, how can the world such a God created and governs have evil in it? In medieval philosophy in the Latin-speaking West, philosophical discussion of evil is informed by Augustine's thought. But even those medieval philosophers not in the Latin-speaking world and not schooled in the thought of Augustine in effect share many of his views. For these reasons, it is helpful to begin an overview of medieval responses to the problem of evil with a brief description of Augustine's position.[1]

Augustine struggled with the question of the metaphysical status of evil; his ultimate conclusion, that evil is a privation of being, was shared by most later medieval philosophers. But 'privation' here is a technical term of medieval logic and indicates one particular kind of opposition; its correlative is 'possession.' A privation is the absence of some characteristic in a thing that naturally possesses that characteristic. So, on Augustine's view, evil is *not* nothing, as he is sometimes believed to have maintained. Rather, it is a lack or deficiency in being in something in which that being is natural. Nothing about this metaphysical position constitutes a solution to the problem of evil; nor did Augustine or any later medieval philosophers suppose it did.[2]

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[1] The literature on Augustine's reflections on goodness is vast; but see, for example, Christopher Kirwan, *Augustine* (London: Routledge, 1989), and G. R. Evans, *Augustine on Evil* (Cambridge: Cambridge University Press, 1982) for helpful introductions. For more recent discussion, see N. Kretzmann and E. Stump (eds.) *The Cambridge Companion to Augustine* (Cambridge: Cambridge University Press, 2001). For a good overview of the problem in the context of medieval philosophical theology, see Ingolf Dalferth, *Malum: Theologische Hermeneutik des Bösen* (Tübingen: Mohr Siebeck, 2008).

[2] For a general discussion of this Augustinian position in later medieval philosophy, see, e.g., Scott MacDonald (ed.) *Being and Goodness. The Concept of the Good in Metaphysics and Philosophical Theology* (Ithaca, NY: Cornell University Press, 1991).

Augustine did puzzle over the introduction of evil into a world created by a good God, and his solution has roots in his understanding of the metaphysics of evil. As he sees it, evil is introduced into creation by the misuse of free will. So-called natural evil, suffering not generated by human free will but arising from events in nature, is explained as the natural concomitant to fallen humanity. The primary cause of all suffering in the world is therefore the evil willed by God's creatures. For Augustine, however, there is *no* cause of a morally wrong act of will, and to that extent there is also no explanation for it. If we want to know the explanation why a good creature of a good creator forms a morally wrong act of will, there is nothing there to know, if the explanation we are seeking is the cause of the evil in that will. A morally wrong, free act of the will is deficient in being, as it is deficient in reason, and there is no efficient cause of this deficiency.

A theodicy is an attempt to show the compatibility of God and evil in the world. Typically, a theodicy tries to provide a morally sufficient reason for an omniscient, omnipotent, perfectly good God to allow evil. Augustine gave varying suggestions for such a reason. One suggested reason is that the suffering permitted by God contributes to the beauty and goodness of the whole universe, just as a dark patch may contribute to the lightness and beauty of a painting.

Another suggested reason ties suffering to the human propensity for wrong-doing and the remedy for that propensity, divine grace. On Augustine's view, the proclivity to moral wrongdoing is universal among human beings, and the remedy for it requires God's aid. At the end of his life, Augustine was intensely occupied by the Pelagian controversy. On Augustine's fiercely anti-Pelagian position, without the aid of divine grace it is not possible for there to be any good in a human will. Augustine himself felt that he had failed to find the solution to the philosophical and theological difficulties engendered by this anti-Pelagian position, but he was not on that account inclined to abandon it. For Augustine, there is a bentness in the human will that human beings them-selves are unable to cure. Grace is necessary for redemption from it; but, in a way not easy to explain, suffering also somehow works together with grace to effect an antidote to it.[3]

GREGORY THE GREAT

For a large part of the subsequent history of medieval philosophy, consideration of the problem of evil either is influenced by Augustine's views or is reacting

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[3] For Augustine's views on these issues, see, for example, my "Augustine on Free Will," in N. Kretzmann and E. Stump (eds.) *The Cambridge Companion to Augustine* (Cambridge: Cambridge University Press, 2001) 124–47.

to metaphysical and theological views analogous to his. Augustine's suggestion that evil is like a dark patch that contributes to the overall beauty of a picture did not altogether disappear from later medieval discussion, but it is his connection between suffering and redemption from the universal human tendency to wrongdoing that is central to later discussions of the problem of evil.

The typical medieval development of this attitude can be found already in the work of Gregory the Great, in his sixth-century commentary on the biblical book of Job. Like many other commentators on that book, Gregory puzzled over the way in which suffering and prosperity are distributed in the world, and he confessed himself mystified about how to square that distribution with the existence of a perfectly good, omnipotent, omniscient God. But Gregory's puzzle is at the antipodes from that customary in the modern period. The ways of providence are often hard to understand, Gregory said, but they are

still more mysterious when things go well with good people here, and ill with bad people . . . When things go well with good people here, and ill with bad people, a great uncertainty arises whether good people receive good so that they might be stimulated to grow into something [even] better or whether by a just and secret judgment they see the rewards of their deeds here so that they may be void of the rewards of the life to come . . . Therefore since the human mind is hemmed in by the thick fog of its uncertainty among the divine judgments, when holy people see the prosperity of this world coming to them, they are troubled with a frightening suspicion. For they are afraid that they might receive the fruits of their labors here; they are afraid that divine justice detects a secret wound in them and, heaping external rewards on them, drives them away from internal ones . . . Consequently, holy people are more fearful of prosperity in this world than of adversity.

(Bk. V, intro.)[4]

In other words, since in Gregory's view it is so difficult to understand how a just and benevolent providence could allow *good* things to happen to *good* people, when good people see there is no adversity in their lives, they cannot help but wonder whether they are not after all to be counted among the wicked. For that reason, prosperity is more frightening to them than adversity.

THE MEDIEVAL STANDARD OF VALUE

The medieval period certainly does not speak with one voice about the problem of suffering. Nonetheless, the worldview underlying Gregory's lines is common throughout the Middle Ages. To understand the medieval appropriation and development of the Augustinian position as formulated in this quotation from

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[4] Although I have preferred to use my own translation, there is a nineteenth-century translation of the whole work by James Bliss; for this passage see pp. 241–2. (A partial contemporary translation by James O'Donnell is also available online.)

Gregory, it is necessary to recognize that the problem of evil will appear differently to different thinkers grappling with it depending on the worldview they bring to it.

One important part of any worldview is the standard of value adopted. The problem of suffering challenges religious belief to produce a morally sufficient reason for a perfectly good, omniscient, omnipotent God to allow human beings to suffer. But to ask for such a reason is to ask whether there is any benefit that can defeat suffering.[5] Even to consider this question, then, requires reflecting on standards of value. What is a benefit for human beings, and on what scale could it outweigh suffering? How shall we measure the good for human beings?

On views common to many medieval authors, the genus within which the greatest goods for human beings fall is *personal relationship*. That is because, on these medieval views, it is possible for a human person to be united with God. The greatest good for a human being is to be in personal relationships of love, and the greatest personal relationship of love is union with God. Furthermore, the hallmark of a great good is that it is shareable, that it is not diminished by being distributed. Union with God, which is the greatest of goods for a human being and the best of personal relationships, is therefore also the most shareable. The love of one human being for another is also a shareable good, and human loves can themselves be woven into the shareable love between God and human persons. Heaven, then, is this best thing for human beings made permanent and unending.

If a shared loving personal relationship of this sort with God is the best thing for human beings, the worst thing is its absence. Because a human will is free, it is possible for a human being never to want or to achieve real closeness or love with God or with any human persons. Furthermore, because human beings are permanent and not transitory things, a human being is capable of being in such a condition forever; and this is hell.[6]

This view of the best thing and the worst thing for human beings thus marks out a scale of value on which human suffering and the benefits which might be thought to redeem it can be measured. The scale comes in degrees, because it is possible to have more or less of a loving relationship with any person, or to be more or less distant from a person. But the scale also has limits. The complete

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[5] 'Defeat' is a technical term in this connection. There are different formulations of the notion of defeat, but basically the idea is this. A benefit defeats suffering only if the benefit outweighs the suffering and could not be gotten without the suffering (in some suitable sense of the modality in question).

[6] This view of the best thing and the worst thing for human beings is made graphic and vivid in the *Divine Comedy* of Dante, who was himself an impressive student of medieval philosophy and theology.

and permanent absence of loving personal relationships is an extrinsic limit on one end.[7] The shared and unending loving union with God is the intrinsic limit on the other end.

THE ROLE OF SUFFERING

In varying ways, on typical medieval views, suffering is understood as one important means by which the worst thing for human beings is warded off and the best thing for human beings is achieved. Human proclivities to moral wrongdoing are an obstacle to union with God and can result in permanent separation from God. God's grace is sufficient to bring everyone to union with him, provided only that a person does not reject that grace. Suffering is a means by which a person can be brought to surrender to the help of grace. And so, on these medieval views, suffering is seen as medicinal. Because it can melt resistance to God's grace, it can be therapeutic for spiritual health.[8]

Thomas Aquinas

In his commentary on the biblical book of Job, Aquinas says,

Someone's suffering adversity would not be pleasing to God except for the sake of some good coming from the adversity. And so although adversity is in itself bitter and gives rise to sadness, it should nonetheless be . . . [acceptable to us] when we consider its usefulness, on account of which it is pleasing to God . . . For in his reason a person rejoices over the taking of bitter medicine because of the hope of health, even though in his senses he is troubled.

(ch. 1, secs. 20–1)

In fact, on Aquinas's view, the better the person, the more likely it is that he will experience suffering. The moral strength and spiritual greatness of a person render him more, rather than less, likely to suffer. That is because strenuous medical regimens are saved for the strongest patients. In the case of a person who is comparatively psychically healthy, the point of the suffering is not so

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[7] By speaking of this point as an extrinsic limit on loving relationship, I do not mean to imply that absence of personal relationship with God does not come in degrees. Zero is the extrinsic limit on the continuum of the positive integers, but there is a continuum of integers below zero. On typical medieval views of the sort exemplified by Dante in the *Inferno*, for example, although there is no mutual loving relationship between God and any persons in hell, some people in hell are more distant from that love than others.

[8] For a detailed exposition of this medieval theodicy and an examination of the underlying worldview in which it is set, see my *Wandering in Darkness: Narrative and the Problem of Suffering* (Oxford: Oxford University Press, forthcoming). See also the chapter on providence in my *Aquinas* (London: Routledge, 2003).

much warding off the worst thing as it is enabling as much as possible of the best thing, the shared union with God, which is the glory of a human being.

Because Aquinas is Christian, on his view there is a theologically important connection between suffering in its redemptive role and the suffering of Christ. Christ's passion and death are the primary means by which divine grace is brought to human beings, and it also provides consolation for human beings who are suffering. But, however important it is in Aquinas's philosophical theology, the connection between Christ's suffering and redemptive human suffering is too complicated to be explored adequately in passing here.[9]

Saadiah Gaon

In all but its specifically Christian respects, Aquinas's account is representative not only of views in the Latin-speaking medieval world but also of attitudes in Jewish thought. Consider, for example, the theodicy given by the tenth-century Jewish thinker Saadiah Gaon.[10] Aquinas and Saadiah share certain basic theological and ethical views. Unlike the fourteenth-century Jewish philosopher Levi ben Gershom (Gersonides), for example, who seems to think that God's providence does not extend to all individual human beings,[11] Saadiah, like Aquinas, assumes that God knows and cares about every individual human being. Furthermore, like Aquinas, Saadiah also supposes that God is justified in allowing some unwilling innocent to suffer only in case the benefit that justifies the suffering goes primarily to the sufferer. In his commentary on Job, Saadiah says that:

God's creating suffering, sickness, and injury in the world is also an act of beneficence and in the interest of humanity . . . What is true of sufferings felt without affecting the

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[9] For some discussion of it, see the chapters on atonement and on faith in my *Aquinas.*

[10] For detailed consideration of Saadiah's account of the problem of evil in comparison with that of Aquinas and that of Maimonides, see my "Saadya Gaon and the Problem of Evil," *Faith and Philosophy* 14 (1997) 523–49.

[11] See, for example, Levi ben Gershom, *The Wars of the Lord*, Bk. IV ch. 4 (tr. Feldman, p. 174): "It is evident that individual providence must operate in some people but not in others . . . It is evident that what is more noble and closer to the perfection of the Agent Intellect receives the divine providence to a greater degree and is given by God the proper means for its preservation . . . Since man exhibits different levels of proximity to and remoteness from the Agent Intellect by virtue of his individual character, those that are more strongly attached to it receive divine providence individually. And since some men never go beyond the disposition with which they are endowed as members of the human species . . . such people are obviously not within the scope of divine providence except in a general way as members of the human species, for they have no individual [perfections] that warrant [individual] providence. Accordingly, divine providence operates individually in some men . . . and in others it does not appear at all." For helpful discussion of Levi ben Gershom's work, see T. M. Rudavsky, "Gersonides," in E. Zalta (ed.) *Stanford Encyclopedia of Philosophy*: http://plato.stanford.edu.

body is true also of those that do affect it: the Creator does not so afflict His servant except in his [the servant's] own interest and for his own good.

(tr. Goodman, pp. 124–5)

Saadiah's scale of values by which the good for human beings is measured resembles Aquinas's as well. To begin with, Saadiah believes that a human life does not end with death but that it continues forever, after death, in a state dependent on its condition at death. In fact, not only does Saadiah hold this belief, but in his view so does every Jew. In his *Book of Beliefs and Convictions* he says:

as far as the resurrection of the dead is concerned ... it is a matter upon which our nation is in complete agreement ... The reason why [man] has been distinguished above all other creatures is that he might serve God, and the reward for this service is life in the world of recompense ... We ... do not know of any Jew who would disagree with this belief.

(tr. Rosenblatt, p. 264)

For Saadiah, the standard of value for human beings also is a function of relationship with God. So, for example, in describing the highest good to be expected in the afterlife, Saadiah describes it in terms of being gathered gloriously to God:

God has made us great and liberal promises of the well-being and bliss and greatness and might and glory that He will grant us twofold ... for the humiliation and misery that have been our lot ... [W]hat has befallen us has been likened by Scripture to a brief twinkling of the eye, whereas the compensation God will give us in return therefore has been referred to as His great mercy. For it says: *For a small moment have I forsaken thee; but with great compassion will I gather thee.*

(ibid., p. 292)

The worst thing for human beings, as well as the best thing, is what is to come in life after death:

the reward and the punishment ... will be everlasting, [and] their extent will vary according to the act. Thus, for example, the nature of a person's reward will be dependent upon whether he presents one or ten or one hundred or one thousand good deeds, except that it will be eternal in duration ... Likewise will the extent of a person's punishment vary according to whether he presents one or ten or a hundred or a thousand evil deeds, except that, whatever the intensity of the punishment may be, it will be everlasting.

(ibid., pp. 347–8)

For Saadiah, as for Aquinas, suffering has a role to play in warding off the worst thing and providing the best thing for human beings.

On Saadiah's account, which is more explicit and developed in this respect than Aquinas's is, suffering serves this function in three differing ways. First, there is the sort of suffering which constitutes training and character-building. Saadiah says, "Although these may be painful for human beings, hard, wearying, and troubling of mind, all this is for our own good. Of this the prophet says, *the chastening of the Lord, my son, despise not*" (*On Job*, p. 125). Second, there is "purgation and punishment." If the first case can be thought of as making a basically good person better, this second case can be thought of as keeping a person who has done something bad from getting worse and/or rectifying his accounts so that he is not in moral debt any more. Third, there is suffering such as Job's. To explain this sort of suffering, we need yet a third category, on Saadiah's view. This is the category of trial:

> The third case is that of trial and testing. An upright servant, whose Lord knows that he will bear sufferings loosed upon him and hold steadfast in his uprightness, is subjected to certain sufferings, so that when he steadfastly bears them, his Lord may reward and bless him. This too is a kind of bounty and beneficence, for it brings the servant to everlasting blessedness.
>
> (ibid., pp. 125–6)

That is why, Saadiah maintains, one kind of goodness that God shows his creatures is "recompense for tribulations . . . [God] records all to our account in His books. If we were to read these ledgers, we would find all we have suffered made good, and we would be confirmed in our acceptance of His decree" (ibid., p. 127). (See Chapter 33 for further discussion of Saadiah's views in this area.)

COMPLICATIONS AND VARIATIONS

In the period after Aquinas, an increasing tendency to tie morality to God's will complicates the attitude toward the problem of evil represented by Saadiah's and Aquinas's theodicies. So, for example, William of Ockham holds that God has no moral obligations but that whatever God does is done justly in virtue of the fact that God does it. In a famous passage, much cited out of context, Ockham claims that if God commanded a person to hate God, then it would be just for that person to hate God, in heaven as well as on earth (see Chapter 51).[12] Although the lineaments remain roughly the same, theodicy and the problem of evil itself will obviously look different on this way of conceiving the standard

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[12] See, e.g., Ockham, *Sent.* II.3–4 (*Opera theol.* V: 59) and *Sent.* II.15 (*Opera theol.* V: 343). For a discussion of these issues in Ockham's work, see, for example, Lucan Freppert, *The Basis of Morality According to William Ockham* (Chicago: Franciscan Herald Press, 1988).

of value for human beings. There is no need to search for a morally sufficient reason for God to allow evil if whatever God does is done justly in virtue of the fact that God does it. The apparent incompatibility of God and evil in the world is also harder to show if by God's justice we mean God's doing whatever he wills.

In addition, changing attitudes toward God's relationship to time and God's foreknowledge of things in time also make a difference to the role assigned to suffering in the process of redemption and thus also to its place in theodicy. John Duns Scotus's doctrine of predestination shows the point at issue here. According to Scotus, although God predestines human beings to salvation prior to foreknowing their actions, he does not destine human beings to damnation prior to foreknowing their actions. Rather, on the basis of foreknowledge of the bad actions of those not saved, God relegates them to damnation. In defense of this view and to explain why God's failing to destine some human beings to salvation does not constitute God's destining them to damnation, Scotus looks for a position which is Augustinian in its anti-Pelagian character but which nonetheless relegates some control over good actions to human beings. As Scotus explains this position, although on anti-Pelagian views a human being cannot merit divine grace, it is still open to a human being to merit the restoration of grace after a fall into sin. That is because the restoration of grace can be merited by suffering, in the doing of penance. Suffering that is penance can thus contribute to redemption. God is therefore justified in allowing suffering that is penitential and redemptive.

On this account, then, suffering still has a role to play in salvation, although in its details this is significantly different from Saadiah's or Aquinas's account.[13]

AN ALTERNATIVE ACCOUNT: MAIMONIDES

The general attitude toward suffering represented by the medieval accounts sketched so far would need considerably more discussion in order for them to seem anything other than alien to contemporary sensibilities. Even so, this brief presentation is enough to clarify the development of the Augustinian view expressed by Gregory the Great in the quotation above, which is central to the theodicies of Saadiah and Aquinas. Gregory finds it perplexing when good things happen to good people, because Gregory thinks that if these people were in fact morally healthy (relatively speaking), then God would bless them with

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[13] For a discussion of these issues in the work of Duns Scotus, see, for example, Richard Cross, *Duns Scotus* (Oxford: Oxford University Press, 1999). Cross (p. 106) cites in this connection *Ordinatio* I.2.2.1–4, nn. 233, 235.

the medicine of suffering to move them forward to even further spiritual health. The absence of suffering in the lives of such people is therefore mysterious to Gregory. Medicinal regimes are withheld from people only in case they are so ill that the therapy cannot do them any good. And so when *good* things happen to good people, Gregory finds the ways of providence hard to understand.

The theodicies offered by Saadiah and Aquinas are at home in this sort of attitude. There are also, however, medieval accounts of suffering that are not. In addition to the account of Levi ben Gershom alluded to above, the position of Moses Maimonides is a good example here. Maimonides knows Saadiah's theodicy, and he particularly dislikes Saadiah's view of sufferings as trials. Maimonides thinks that this view is common, vulgar, stupid, and impious. He says:

> What is generally accepted among people regarding the subject of *trial* is this: God sends down calamities upon an individual without their having been preceded by a sin, in order that his reward be increased. However, this principle is not at all mentioned in the *Torah* in an explicit text . . . The principle of the Law that runs counter to this opinion, is that contained in His dictum, may He be exalted: *A God of faithfulness and without iniquity.* Nor do all the *Sages* profess this opinion of the multitude, for they say sometimes: *There* is *no death without sin and no sufferings without transgression.* And this [the quoted view of the Sages] is the opinion that ought to be believed by every adherent of the Law who is endowed with intellect, for he should not ascribe injustice to God, may He be exalted above this, so that he believes that Zayd is innocent of sin and is perfect and that he does not deserve what befell him.
>
> (*Guide of the Perplexed*, tr. Pines, pp. 497–8)

If it is represented accurately in this passage, it is hard to see Maimonides's own account of suffering as more palatable than the view of Saadiah which Maimonides is attacking, since Maimonides's account apparently claims that there is no suffering without preceding transgression. It is not always easy to know what Maimonides's own opinions are, however, given the commitment to caution and secrecy evinced in the *Guide*; perhaps Maimonides here means to be presenting only religious views suitable for the unlearned. But there are certainly passages in which Maimonides appears to be arguing explicitly for the view that every sufferer deserves exactly what he suffers. So, for example, he says:

> It is likewise one of the fundamental principles of the Law of *Moses our Master* that [1] it is in no way possible that he, may he be exalted, should be unjust, and that [2] all the calamities that befall men and the good things that come to men, be it a single individual or a group, are all of them determined according to the deserts of the men concerned through equitable judgment in which there is no injustice whatever. Thus if some individual were wounded in the hand by a thorn, which he would take

out immediately, this would be a punishment for him, and if he received the slightest pleasure, this would be a reward for him – all this being according to his deserts. Thus he, may he be exalted, says: *For all his ways are judgment.*

<div align="right">(ibid., p. 469)</div>

As a palliative for what seems to be the manifest mistakenness of his position, Maimonides adds that human judgment of the moral state of others is often wrong, for "we are ignorant of the various modes of deserts" (ibid.).[14] On this position, there is nothing perplexing about God allowing good things to happen to good people.

<div align="center">THE END OF THE MEDIEVAL PERIOD</div>

Even Maimonides's position has this much in common with that of Saadiah and Aquinas: Maimonides takes himself to have a satisfactory theodicy, and he supposes that suffering can be understood in terms of its connection to or effects on the person who suffers. Even as punishment, suffering is somehow – directly or indirectly – good for the person who suffers, and it is allowed by God for just that reason. In marked contrast to this attitude, however, is the one expressed by an adherent to the *devotio moderna*, a religious movement important in the Netherlands in the fifteenth century. Commenting on the death of a recently appointed principal of a school for religious instruction, an anonymous adherent of the *devotio moderna* raises the problem of evil in a way that is quite devout but that has an almost contemporary sound to it:

Permit me to take a moment here to allude to the wondrous and secret judgments of our Lord God, not as if scrutinizing them in a reproachful way but rather as humbly venerating the inscrutable. It is quite amazing that our fathers and brothers had set out with a single will and labored at their own expense, to the honor of God and for the salvation of souls, to erect a school here in Emmerich to do exercises with boys and clerics . . . And now after much care and trouble, everything had been brought to a good state: we had a learned and suitable man for rector, the venerable Master Arnold of Hildesheim . . . Then, behold . . . our Lord God, as if totally unconcerned with all that we had in hand, which had just begun to flower, suddenly and unexpectedly threw it all into confusion and decline, nearly reducing it to nothing. For just as the sheep are dispersed when the shepherd is struck down, so when our beloved brother [Master Arnold] died the whole school was thrown into confusion. The youths left in swarms . . . not, it is to be feared, without some danger to their souls . . . Nonetheless, to

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[14] David Shatz has pointed out to me the need for caution with regard to Maimonides's position on deserts. It is complicated by Maimonides's unusual account of providence, which makes an individual's intellectual development a primary value for divine providence.

[him] be the honor and the glory now and through the ages, to him whose judgments, though hidden, are yet never unjust.[15]

Here we find an attitude towards the problem of evil that is not difficult for us, even with our current sensibilities, to understand. This pious author, dealing just with the establishment of a school for children, finds adversity fundamentally inexplicable, not only as regards the application of the theory of a theodicy to this particular instance of evil but even within the theological theory of theodicy. It certainly does not occur to him to tie the suffering of the loss of the school to the spiritual condition of those who suffer. However religiously committed this fifteenth-century author may be, the worldview with which he approaches the problem of evil is no longer medieval. He is focused on goods of this world, and he is not inclined to see suffering as instrumental to otherworldly goods, such as spiritual well-being; consequently, he finds an acceptable theodicy hard to imagine. His response to suffering in the world thus has more in common with modern views than with those in the medieval period.

[15] John van Engen (tr.) *Devotio Moderna: Basic Writings* (New York: Paulist Press, 1988) p. 151. I am grateful to Van Engen for calling my attention to the intriguing material in this book.

APPENDICES

Appendix A

DOCTRINAL CREEDS

1. THE NICENE CREED
THOMAS WILLIAMS

The Nicene Creed was adopted by the First Council of Nicaea (325) and revised by the First Council of Constantinople (381). Its original Greek text was in the first-person plural – "We believe" – reflecting the Creed's role as a statement of the essential faith of the Church. The most familiar Latin text, however, is in the first-person singular, recited by the priest alone at a time when the people no longer participated vocally in the Eucharistic liturgy. A strictly literal translation of the Latin text is given below.

For medieval Christians, the Nicene Creed held a unique status as a touchstone of orthodoxy. As the statement of ecumenical councils held by the undivided Church, it was (and remains) preeminently authoritative. There was nothing comparable in medieval Judaism and Islam, which had no authoritative mechanism or centralized hierarchy for determining the boundaries of correct belief.

> I believe in one God, the Father omnipotent, Maker of heaven and earth, and of all things visible and invisible.
>
> And [I believe] in one Lord, Jesus Christ, the only-begotten Son of God, and born from the Father before all ages: God from God, Light from Light, true God from true God; begotten, not made; consubstantial with the Father. Through him all things were made. For the sake of (*propter*) us human beings, and for the sake of our salvation, he descended from heaven. And he was incarnate by the Holy Spirit from the Virgin Mary, and became human (*homo factus est*). He was also crucified for us under Pontius Pilate, suffered, and was buried. And on the third day he rose again in accordance with the Scriptures. And he ascended into heaven [and] sits at the right hand of the Father. And he will come again with glory to judge the living and the dead. His kingdom will have no end.
>
> And [I believe] in the Holy Spirit, the Lord and Life-giver, who proceeds from the Father and the Son.[1] He is worshiped and glorified together with the Father and the Son. He has spoken through the prophets. And [I believe]

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[1] The phrase "and the Son" (*filioque*) was added by the Synod of Toledo in 447 and gradually came to be accepted in the West. The *filioque* has never been accepted by the Eastern churches.

one holy, catholic, and apostolic Church. I acknowledge one baptism unto remission of sins. And I look for the resurrection of the dead and the life of the age to come. Amen.

2. CREEDS IN ISLAM

DIMITRI GUTAS

Due to the particular historical circumstances of its growth and spread, the religion of Islam did not develop a centralized institutional authority that would define doctrine and impose it as orthodox. By the same token, because the Arabic text of the Quran is considered to be the very words of God – a fundamental doctrine of Islam unparalleled in both Judaism and Christianity – the holy Book itself constitutes the "creed" that is incumbent upon all Muslims to believe in and follow. For both reasons Islam does not have a creed in the sense of the Christian Nicene Creed. Muslim religious scholars throughout history have composed numerous documents summarizing the principles of their faith as they saw it, but all of these documents, because they were generated in concrete historical circumstances that called for the defense of the views of their adherents, are not so much creeds as distilled statements of a theological position. Their main purpose is to define and establish the doctrinal core of their author and refute as heterodox the positions of his opponents. Every major legal and theological school in Islam has documents of this sort, but they have never had doctrinal force or liturgical function for Muslims at large.[2]

The basic creed of Muslims can be summarized in the Profession of Faith, the *Shahāda* (literally, bearing witness to the fact that)

There is no god but God, Muhammad is the Messenger of God.
   (*lā ilāha illā llāh, Muḥammadun rasūlu llāh.*)

This formula in its composite form is not found as such in the Quran, though its two parts are (Q37:35 and Q48:29). The public profession of this statement constitutes legally valid conversion to Islam. Beyond this kern of Islamic faith, what comes closest to a creed in the Quran, and something that the Muslims themselves have considered as such, are the following verses (Q4:135):[3]

> O believers, believe in God and His Messenger
> and the Book He has sent down on His Messenger
> and the Book which He sent down before.
> Whoso disbelieves in God and His angels
> and His Books, and His Messengers,
> and the Last Day, has surely gone astray
> into far error.

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[2] A selection of them is available in English translation in W. M. Watt, *Islamic Creeds* (Edinburgh: Edinburgh University Press, 1994). A succinct and up-to-date presentation of the subject is offered in the article "Creeds" by Sabine Schmidtke in J. D. McAuliffe (ed.) *Encyclopaedia of the Qurʾān* (Leiden: Brill, 2001–6).

[3] Cited in the translation by A. J. Arberry, *The Koran Interpreted* (London: Macmillan, 1955).

Beyond this, there are certain elements of doctrine, all of them ultimately deriving from the Quran, that constitute the basis of Islamic faith and are included in the credal documents written by the religious scholars mentioned above. W. M. Watt has presented a summary of them, and it is useful to extract its highlights here.[4] Watt's summary may be tilted toward the main Sunnī theological position of the Ashʿarites, but for the most part it is quite representative. Each of these twenty articles has some basis in the Quran, and some are direct translations from various verses. They were all the object of intense theological debates in the history of Islam, and an elucidation of them, even a bare annotation, would essentially constitute a history of Islamic theology. It will be noticed, moreover, that some formulations bear distinct traces in terminology of the philosophical background and context of the debates.

1. God is one, there is no god except Him; He has no partner nor wife; He neither begets nor is begotten.

2. God exists; His existence is rationally proved from the originated character of the world.

3. God is eternal; His existence has neither beginning nor end.

4. God is different from created things. He is not a body nor a substance nor the accident of a substance. He sits on the throne, but only in the sense in which He Himself intended.

5. God will be seen by the faithful in the world to come.

6. God is eternally omnipotent, omniscient, living, willing, hearing, seeing, speaking. These attributes are eternal; they are not God, yet no other than God.

7. The Quran is the eternal and uncreated speech of God.

8. God's will is supreme and always effective; what He wills exists, and what He does not will does not exist. Actions are good and bad because He commands or forbids them, and not in themselves.

9. Man's acts are created by God, but are nevertheless properly attributed to man.

10. The punishment of the tomb – between death and the resurrection – is a reality, as are the signs portending the Last Day.

11. God will judge all men on the Last Day.

12. Certain persons, and notably the Prophet, will be permitted by God to intercede for others.

13. Paradise and Hell already exist, and will continue to exist eternally. Grave Muslim sinners will be punished in Hell, but not eternally. No monotheist will remain eternally in Hell.

14. Prayers for the dead and alms offered on behalf of them are advantageous to them.

15. God has sent to mankind prophets, who are above saints and angels. Muhammad is the seal of the prophets: the final and most excellent of them.

16. Prophets are preserved from all sin by God.

17. The best of men after the prophets, according to the Sunnīs, are Abū Bakr, then ʿUmar, then ʿUthmān, then ʿAlī. According to the Shīʿites, in contrast, ʿAlī and his descendants, the imams, are best.

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4 W. M. Watt, "Aḳīda," in H. A. R. Gibb *et al.* (eds.) *Encyclopaedia of Islam*, 2nd edn (Leiden: Brill, 1960–2004).

18. Unbelief does not necessarily follow the commission of sin by a believer.
19. Faith is knowing in the heart, confessing with the tongue, and performing works. It increases and decreases.
20. Faith and unbelief are due to God's guidance and abandonment respectively.

3. MAIMONIDES'S THIRTEEN PRINCIPLES OF FAITH

SARAH PESSIN

The question of whether Judaism has fundamental principles of belief at all is subject to much debate.[5] One can find a broad array of arguments against Judaism's having foundational beliefs: from Heinrich Graetz's insistence that Judaism is about ethical action rather than beliefs,[6] to Jewish theological reformers who see Judaism as infinitely fluid (and, hence, absent any list of basic beliefs), to even more traditional Jewish Rabbinic thinkers who, like Rabbi Isaac Abarbanel in the fifteenth century, maintain that every claim in the Torah holds equal weight, and that therefore any attempt to highlight the "most central claims" is untenable and ultimately foreign to Judaism.[7] On the other hand, there is the centuries-old theological pervasiveness of Maimonides's Thirteen Principles of Faith, heralded within many Jewish circles as the defining statement of Jewish creed. While not the first to list principles of Judaism, Maimonides is nonetheless frequently seen within Jewish theological history as the thinker responsible for most fully and definitively penning a list of such foundational beliefs.

The Thirteen Principles are taken from Maimonides's commentary on the tenth chapter of the Mishnaic tractate *Sanhedrin*, itself part of a multi-volume commentary on the Mishnah. Maimonides immediately follows up these Principles with the dual claims that anyone who understands and believes them enters the community of Israel, and that anyone who doubts any of these foundations is not simply a sinner, but is no longer a member of the community of Israel. However, despite these remarks, and despite the prevalence of the Thirteen Principles in modern Jewish theological rhetoric – appearing everywhere from prayer books to greeting cards – it is not clear that Maimonides took himself to be crafting a definitive statement of Jewish creed, or that these principles were ever actually treated as such by Jewish rabbis and theologians through the ages.[8] Maimonides does not issue these principles as part of an authoritative public proclamation on orthodoxy; instead, they are found in the closing pages of a much longer commentary.

[5] For a bibliography of sources on dogma in Judaism, see Menachem Kellner, "Dogma in Medieval Jewish Thought: A Bibliographical Survey," *Studies in Bibliography and Booklore* 15 (1984) 5–21; see, too, Louis Jacobs, *Principles of the Jewish Faith: An Analytical Study* (New York: Basic Books, 1964) pp. 7–8, 30–2; and Marc Shapiro, *The Limits of Orthodox Theology: Maimonides' Thirteen Principles Reappraised* (Oxford: Littman Library of Jewish Civilization, 2004) pp. 1–37.
[6] See Heinrich Graetz, "The Significance of Judaism for the Present and the Future," *Jewish Quarterly Review* 1 (1888) 4–13.
[7] Isaac Abarbanel (sometimes transliterated as Abravanel) explores this in his *Rosh Amanah*. For discussion, see Menachem Kellner, *Dogma in Medieval Jewish Thought: From Maimonides to Abravanel* (Oxford: Oxford University Press, 1986) pp. 179–95.
[8] For an argument to this effect, see Shapiro, *The Limits of Orthodox Theology*.

One approach to these Thirteen Principles (championed by Abarbanel and others)[9] is that Maimonides intended this as a creedal list only for the "religious masses" not able to use their intellects to attain the true principles of being. A hint of this idea can be seen in the pages leading up to his statement of the Principles. Commenting on the salvific rabbinic concept of "having a share in the world to come," Maimonides launches into an analysis of allegory and the art of writing, charting the contrast between esoteric "inner" meanings and exoteric "outer" texts, a theme on which he elaborates at greater length in his *Guide of the Perplexed*. Even in this earlier commentary on the Mishnah, Maimonides highlights the theme of writing-for-your-reader, stressing that "it is clear . . . that the words of the Sages contain both an obvious and a hidden meaning."[10] The masses cannot be expected to grasp hidden meanings, a point underscored by Maimonides's contention that "concerning this strange world to come, you will rarely find anyone to whom it occurs to think about it seriously . . . or to inquire what it really means." Hence Maimonides argues that it is sometimes crucial for these Sages to speak in simplistic terms, if they are to be understandable to the average person. He offers the analogy of a child who must be coaxed towards the truth with figs and honey – instrumental tools that lead to the truth, but that are not themselves the truth.[11]

Here is an abridged version of Maimonides's text, supplying just the opening claims and not the subsequent analysis for each principle:[12]

> The first foundation (*al-qāʿida*) is the existence (*al-wujūd*) of the Creator (*al-bāriʾ*), may He be praised. And this in the sense that there is an existent in the most perfect kind of existence, and it is the cause of the existence of all the existents.
>
> The second foundation is His oneness (*al-waḥda*), may He be exalted. And this in the sense that He, cause of all things, is one.
>
> The third foundation is the denial of corporeality to Him. And this in the sense that this One is not a body and is not a power in a body.
>
> The fourth foundation is [His] eternal preexistence (*al-qidam*). And this in the sense that this One is described as He who is absolutely eternally preexistent.
>
> The fifth foundation is that He, may He be exalted, is He Whom it is proper to worship and to praise, and to publicize His greatness and obedience to Him.
>
> The sixth foundation is prophecy.
>
> The seventh foundation is the prophecy of Moses, our Teacher.
>
> The eighth foundation is that the Torah is from heaven.

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[9] See *Rosh Amanah*, ch. 23. For a reaction against this sort of reading, see Kellner, *Dogma*, pp. 36 and 47.

[10] As translated by Arnold Jacob Wolf in *A Maimonides Reader* (ed. I. Twersky 1972) p. 409.

[11] Ibid., pp. 403–5.

[12] The translation is from the Arabic original of the *Mishnah im Perush* (ed. and [Hebrew] tr. Kafih, pp. 210–17), and partially follows David R. Blumenthal (as printed in Kellner, *Dogma*, pp. 11–16) as well as Kafih's Hebrew notes and translation.

The ninth foundation [regards] abrogation (*al-naskh*). And this in the sense that the Law of Moses shall not be abrogated [or changed] and that there shall not arise from God any Law other than this one.

The tenth foundation is that He, may He be exalted, knows the acts of men and does not overlook them.

The eleventh foundation is that He, may He be exalted, rewards him who obeys the commands of the Torah and punishes him who violates its prohibitions.

The twelfth foundation is the days of the Messiah, namely, the belief in (*al-ʾīmān*) and assent to [the truth of] (*al-taṣdīq*) his arrival.

The thirteenth foundation is the resurrection.

Appendix B

MEDIEVAL TRANSLATIONS

1. GREEK ARISTOTELIAN WORKS TRANSLATED INTO LATIN

The information in this table is adapted, with a few revisions, from Bernard G. Dod's table in the *Cambridge History of Later Medieval Philosophy*.[1] The most popular translations (judging from the number of extant manuscripts) are marked with a star (*). Translations made via the intermediary of an Arabic text are marked with an obelisk (†). Volumes published (or available electronically) through the series *Aristoteles Latinus* are indicated by AL (or ALD for volumes as yet available only electronically). Working texts of translations not yet edited as part of that series can often be found in editions of the commentaries of Thomas Aquinas and others. These other abbreviations are also used: CLCAG = *Corpus Latinum Commentariorum in Aristotelem Graecorum*; ASL = *Aristoteles Semitico-Latinus*.

Title Commentator	Translator	Date
Categories	a. Boethius* (AL I.1)	*ca.* 510–22
	b. William of Moerbeke (AL I.3)	1266
Simplicius	William of Moerbeke (AL I.4; CLCAG V)	1266
De interpretatione	a. Boethius* (AL II.1)	*ca.* 510–22
	b. William of Moerbeke (AL I.2)	1268
Ammonius	William of Moerbeke (CLCAG II)	1268
Prior Analytics	a. Boethius* (AL III.1–2)	*ca.* 510–22
	b. Anonymous (AL III.3)	twelfth century
Posterior Analytics	a. James of Venice* (AL IV.1)	1125–50 (?)
	b. Ioannes (AL IV.2)	before 1159
	c. † Gerard of Cremona (AL IV.3)	before 1187
	d. William of Moerbeke (AL IV.4) (revision of [a])	*ca.* 1269 or earlier
Themistius	† Gerard of Cremona	before 1187

(cont.)

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[1] For up-to-date details, see Jozef Brams, *La riscoperta di Aristotele in Occidente* (Milan: Jaca, 2003), as well as the Aristoteles Latinus web page: www.hiw.kuleuven.ac.be/dwmc/al.

Title Commentator	Translator	Date
Topics	a. Boethius⋆ (AL V.1–2)	*ca.* 510–22
	b. Anonymous (AL V.3)	twelfth century
Sophistici elenchi	a. Boethius⋆ (AL VI.1)	*ca.* 510–22
	b. James of Venice (AL VI.2)	1125–50 (?)
	c. William of Moerbeke (AL VI.3)	*ca.* 1269 or earlier
Pseudo-Alexander (Michael of Ephesus)	James of Venice (CLCAG VII)	1125–50 (?)
Physics	a. James of Venice⋆ (AL VII.1)	1125–50 (?)
	b. Anonymous ('Physica vaticana') (AL VII.2) (same translator as the *media* of the *Metaphysics*)	mid-twelfth century (?)
	c. † Gerard of Cremona	before 1187
	d. † Michael Scot (?)⋆	*ca.* 1220–35
	e. William of Moerbeke⋆	*ca.* 1260–70 (?)
De caelo	a. † Gerard of Cremona⋆ (ed. Opelt, in Albert the Great, *Opera* V.1)	before 1187
	b. † Michael Scot	*ca.* 1220–35
	c. Robert Grosseteste (ALD VIII.1)	after 1247 (?)
	d. William of Moerbeke⋆ (ALD VIII.2)	*ca.* 1260–70 (?)
Simplicius	a. Robert Grosseteste	after 1247 (?)
	b. William of Moerbeke⋆ (CLCAG VIII)	1271 (Viterbo)
De generatione et corruptione	a. Burgundio of Pisa⋆ (AL IX.1)	mid-twelfth century
	b. † Gerard of Cremona	before 1187
	c. William of Moerbeke⋆ (ALD IX.2)	before 1274
Meteorologica	a. Henry Aristippus (Bk. IV)⋆	before 1162
	b. † Gerard of Cremona (Books I–III)⋆ (ASL XII)	before 1187
	c. William of Moerbeke⋆ (ALD X.2)	*ca.* 1260 (?)
Alexander	William of Moerbeke	1260 (Nicea)
De anima	a. James of Venice⋆ (ALD XII.1)	1125–50 (?)
	b. † Michael Scot (?)⋆	*ca.* 1220–35
	c. William of Moerbeke⋆ (ALD XII.2)	before 1268 (?)
Philoponus (Bk. III)	William of Moerbeke (CLCAG III)	1268 (Viterbo)
Themistius	William of Moerbeke (CLCAG I)	1267 (Viterbo)

Title Commentator	Translator	Date
De sensu	a. Nicholas of Reggio (?)⋆ (ALD XIII.1)	later twelfth century
	b. William of Moerbeke⋆ (ALD XIII.2)	1260–70 (?)
Alexander	William of Moerbeke	1260–70 (?)
De memoria	a. James of Venice⋆ (ALD XIV.1)	1125–50 (?)
	b. William of Moerbeke⋆ (ALD XIV.2)	1260–70 (?)
De somno	a. Anonymous⋆ (ALD XV.1)	twelfth century
	b. William of Moerbeke⋆ (ALD XV.2)	1260–70 (?)
De longitudine	a. James of Venice⋆ (ALD XVI.1)	1125–50 (?)
	b. William of Moerbeke⋆ (ALD XVI.2)	1260–70 (?)
De iuventute	a. James of Venice (ALD XVI.1)	1125–50 (?)
	b. William of Moerbeke⋆	*ca.* 1260–70
De respiratione	a. James of Venice (ALD XVI.1)	1125–50 (?)
	b. William of Moerbeke⋆	1260–70 (?)
De morte	a. James of Venice (ALD XVI.1)	1125–50 (?)
	b. William of Moerbeke⋆	1260–70 (?)
De animalibus (comprising *Historia*, *De progressu, De motu, De partibus, De generatione*)	a. † Michael Scot (*Hist., De part., De gener.*)⋆ (ASL V)	before 1220
	b. Anonymous (*De motu*) (ALD XVII.1)	early thirteenth century (?)
	c. Anonymous (*De part. an.*)	thirteenth century (?)
	d. William of Moerbeke⋆ (AL XVII.2)	1260 (Thebes)
Metaphysics	a. James of Venice (AL XXV.1) (Bks. I–IV.4; '*vetustissima*')	1125–30 (?)
	b. Anonymous (AL XXV.1a) ('*vetus*'; revision of [a])	1220–30
	c. Anonymous (AL XXV.2) ('*media*'; lacks Bk. XI) (same translator as the *Vaticana* of the *Physics*)	twelfth century
	d. † Michael Scot⋆ (?) ('*nova*') (lacks Bk. XI)	*ca.* 1220–35
	e. William of Moerbeke⋆ (AL XXV.3) ('*novae translationis*'; revision and completion of [c])	before 1272

(*cont.*)

Title Commentator	Translator	Date
Nicomachean Ethics	a. Burgundio of Pisa★ (AL XXVI.1) (Bks. II–III; '*vetus*')	mid-twelfth century
	b. Burgundio of Pisa★ (AL XXVI.2) (Bk. I and fragments of II–X; '*nova*')	mid-twelfth century
	c. Robert Grosseteste★ (AL XXVI.3)	1246–7 (?)
	d. William of Moerbeke★ (AL XXVI.3) (revision of [c])	1250–60
Eustratius (I), Aspasius (VIII), Michael of Ephesus (IX–X)	Robert Grosseteste (CLCAG VI.1, VI.3)	1246–7 (?)
Eudemian Ethics (De bona fortuna)[2]	a. Anonymous★	thirteenth century (?)
	b. Anonymous (fragments)	thirteenth century (?)
Politics	a. William of Moerbeke (AL XXIX.1) (Books I–II; early draft)	1260–4
	b. William of Moerbeke (complete)★ (ALD XXIX.2)	1260 (?)
Oeconomica	a. Anonymous	mid-thirteenth century (?)
	b. William of Moerbeke (rev. of [a])	
	c. Durandus de Alvernia★	1295
Rhetoric	a. Anonymous (AL XXXI.1)	mid-thirteenth century (?)
	b. † Hermann the German	1240/50
	c. William of Moerbeke★ (AL XXXI.2)	before 1270
Rhetorica ad Alexandrum	Anonymous	fourteenth century (?)
	Anonymous	fourteenth century (?)
Poetics	William of Moerbeke (AL XXXIII)	1278
PSEUDO-ARISTOTELIAN AND RELATED WORKS		
Categoriae decem[3]	Anonymous (AL I.5)	350–80
Problemata	Bartholomew of Messina★ (ALD XXII)	1258–66

[2] The work circulating under this title consists of a single chapter of the *Eudemian Ethics* (VII.14) combined with a chapter from the pseudo-Aristotelian *Magna moralia* (II.8) (see below).

[3] A pseudo-Aristotelian work that is, at least in part, a translation of an unknown Greek text.

Title Commentator	Translator	Date
Physiognomia	Bartholomew of Messina★	1258–66
De mirabilibus auscultationibus	Bartholomew of Messina (ALD XXI)	1258–66
De principiis (Theophrastus, *Metaphysics*)	Bartholomew of Messina	1258–66
De signis aquarum	a. Bartholomew of Messina	1258–66
	b. Anonymous	thirteenth/fourteenth century (?)
De lineis insecabilibus	Robert Grossesteste★	*ca.* 1240–50 (?)
De mundo	a. Bartholomew of Messina (AL XI.1)	1258–66
	b. Nicholas of Sicily★ (AL XI.2)	before 1240 (?)
Magna moralia (*De bona fortuna*)[4]	a. Bartholomew of Messina★ (ALD XXVII)	1258–66
	b. Anonymous★	thirteenth century (?)
De coloribus	a. Bartholomew of Messina★	1258–66
	b. William of Moerbeke	1260–70 (?)
De inundatione Nili	Anonymous★	thirteenth century (?)
De intelligentia (anonymous introduction to the *Physics*)	James of Venice★	1125–50 (?)
De causis (Proclus)	† Gerard of Cremona★ (ed. Pattin 1966)	before 1187
Enigmata Aristotelis	Anonymous	twelfth century
Vita Aristotelis	Anonymous★	twelfth to thirteenth century
Isagoge (Porphyry)	Boethius★ (AL I.6)	*ca.* 510–22
De laudabilibus bonis	Robert Grosseteste	1240–53 (?)
Epistola ad Alexandrum (an anonymous introduction to the *Rhetorica ad Alexandrum*)	Anonymous★	thirteenth century

[4] See note 2.

2. GREEK PHILOSOPHICAL WORKS TRANSLATED INTO LATIN

MICHELE TRIZIO

The following table lists non-Aristotelian philosophical works written in Greek and translated into Latin. Authors are listed chronologically. The table is limited to philosophical material and to those theological and scientific works of philosophical interest.[5] Translations from Arabic are marked with an obelisk (†). An asterisk (*) marks those works that, although translated, had little or no influence in the Middle Ages.

Author and Work	Translator	Date
PLATO		
Timaeus	*a. Cicero (27d–37c; 38c–43b, 46c–47b) (ed. Plasberg and Ax 1938)	first century BCE
	b. Calcidius (to 53c) (ed. Waszink 1975)	first century BCE
	*c. Apuleius (?) (lost)[6]	second century
Protagoras	*Cicero (only fragments extant)	first century BCE
Phaedo	*a. Apuleius (lost)[7]	second century
	*b. Henry Aristippus (ed. Minio-Paluello 1950)	1156
Meno	*Henry Aristippus (ed. Kordeuter and Labowsky 1940)	1154/60
Parmenides	William of Moerbeke (126a–142a) (ed. Steel, in Proclus 1982–5)	1280/6
EUCLID		
Elements	† a. Adelard of Bath (ed. Busard 1983)	*ca.* 1120s
	† b. Hermann of Carinthia (ed. Busard 1967–77)	*ca.* 1140s
	† c. Gerard of Cremona (ed. Busard 1984)	before 1187
	*d. Anonymous (ed. Busard 1987)	mid-twelfth century

[5] For a useful although now out-of-date list that includes more theological works, see J. T. Muckle, "Greek Works Translated into Latin before 1350," *Mediaeval Studies* 4 (1942) 33–42, 5 (1943) 102–14. Another important source is the encyclopedic *Catalogus translationum et commentariorum: Mediaeval and Renaissance Latin Translations and Commentaries*, ed. P. O. Kristeller *et al.* (Washington, DC: Catholic University of America Press, 1960–).

[6] See. W. S. Teuffel, *Geschichte der Römische Literatur*, 6th edn (Teubner: Leipzig, 1910–16) 366.8 (III: 104).

[7] See ibid.

Author and Work	Translator	Date
PHILO OF ALEXANDRIA		
Quaestiones ad Genesim	Anonymous (ed. Petit 1973)	*ca*. fourth century
De vita contemplativa	Anonymous (ed. Conybeare 1895)	*ca*. fourth century
PTOLEMY		
Almagest	† a. Abdelmessie Wittoniensis	*ca*. 1130
	b. Anonymous (Sicily)	1160
	† c. Gerard of Cremona	before 1187
GALEN		
De alimentis	William of Moerbeke (ed. Camps 1987)	1277
De causis contentivis	Nicholas of Reggio (ed. Lyons *et al.* 1969)	early fourteenth century
De causis procatarcticis	Nicholas of Reggio (ed. Bardong 1937)	early fourteenth century
De complexionibus	Burgundio of Pisa (ed. Durling 1976)	twelfth century
De crisibus	Burgundio of Pisa (ed. Durling, in "Corrigenda" 1981)	twelfth century
De differentiis febrium	Burgundio of Pisa	twelfth century
De interioribus	Burgundio of Pisa (ed. Durling 1992)	twelfth century
De partibus artis medicativae	Nicholas of Reggio (ed. Lyons *et al.* 1969)	early fourteenth century
IRENAEUS		
Adversus Haereses	Anonymous (PG VII)	prob. third century
SEXTUS EMPIRICUS		
Outlines of Pyrrhonism	*Anonymous (ed. Wittwer, in *Sextus* forthcoming)	twelfth century
HERMES TRISMEGISTUS		
Asclepius	Anonymous (ed. Nock 1946)	third/fourth century
ORIGEN		
De principiis	Rufinus (ed. Crouzel and Simonetti 1978–84)	398–9
Homilies on Genesis	Rufinus (*Werke* vol. VI)	408–10 (?)
Homilies on Exodus	Rufinus (*Werke* vol. VI)	408–10 (?)
Homilies on Leviticus	Rufinus (*Werke* vol. VI)	408–10 (?)
Homilies on Numbers	Rufinus (*Werke* vol. VII)	408–10 (?)
Homilies on Joshua	Rufinus (*Werke* vol. VII)	408–10 (?)
Homilies on Judges	Rufinus (*Werke* vol. VII)	408–10 (?)
Homily on Kings	Rufinus (?)	408–10 (?)
Homilies on Job	Hilary of Poitiers (lost)	fourth century

Author and Work	Translator	Date
Homilies on Psalms 36–38	Rufinus (PG XII)	408–10 (?)
Homilies on the Song of Songs	Jerome (*Werke* vol. VIII)	384
Commentary on the Song of Songs	Rufinus (ed. Brésard and Crouzel 1991–2)	408–10 (?)
Homilies on Isaiah	Jerome (*Werke* vol. VIII)	after 390 (?)
Homilies on Jeremiah	Jerome (PG XIII)	381 (?)
Homilies on Ezekiel	Jerome (*Werke* vol. VIII)	381 (?)
Commentary on St. Matthew	Anonymous (*Werke* vols. X–XI)	
Homilies on Luke	Jerome (*Werke* vol. IX)	after 390 (?)
Commentary on Romans	Rufinus (ed. Hammond Bammel 1990–)	408–10 (?)
Porphyry		
Isagoge	a. Marius Victorinus (fragments) (ed. Minio-Paluello, in Porphyry 1966)	*ca.* fourth century
	b. Boethius (ed. Minio-Paluello 1966)	*ca.* 500
Basil of Caesarea		
Homilies on the Hexaemeron	*Eustathius (PL 53)	440
Gregory of Nazianzus		
Nine Homilies	Rufinus (ed. Wrobel and Engelbrecht 1910)	fourth century
Gregory of Nyssa		
De hominis opificio (*De creatione hominis*, *De imagine*)	a. Dionysius Exiguus (PL 67)	sixth century
	b. John Scottus Eriugena (ed. Cappuyns 1965)	after 862
Nemesius of Emesa		
De natura hominis	a. Alphanus (*Premnon physicon*) (ed. Burkhard 1917)	mid-eleventh century
	b. Burgundio of Pisa (ed. Verbeke and Moncho 1975)	*ca.* 1165
On the Elements (*De natura hominis*, ch. 6)	† Anonymous (Constantine the African?) (ed. Burnett, in "Physics" 2002)	twelfth century
Proclus		
Elementatio theologica	William of Moerbeke (ed. Boese 1987)	1268
Parmenides Commentary	William of Moerbeke (ed. Steel 1982–5)	1280/6

Author and Work	Translator	Date
Timaeus Commentary	William of Moerbeke (fragment) (ibid.)	*ca.* 1280 (?)
Tria Opuscula (*De decem dubitationibus, De providentia, De malorum subsistentia*)	William of Moerbeke (ed. Boese 1960)	1280
PSEUDO-DIONYSIUS		
Corpus Dionysianum (*De divinis nominibus*, *De coelesti hierarchia*, *De ecclesiastica hierarchia*, *De mystica theologia*, *Epistulae*)	a. Hilduin (ed. Théry, in *Études* 1937)	after 827
	b. John Scottus Eriugena (PL 122)	*ca.* 860–2
	c. John the Saracene (ed. in Denys the Carthusian, *Opera* vols. XV–XVI)	*ca.* 1167
	d. Robert Grosseteste	after 1235
	e. Thomas Gallus (paraphrases) (ed. in Denys the Carthusian, *Opera* vols. XV–XVI; *De mystica theologia* ed. and tr. McEvoy 2003)	1233–43
	All of the above are edited by Chevallier 1937–50	
MAXIMUS THE CONFESSOR		
Ambigua ad Iohannem	John Scottus Eriugena (ed. Jeauneau 1988)	after 860
Centurae de caritate	Cerbanus (ed. Boronkai 1975)	twelfth century
Life of St. Maximus the Confessor	Anastasius Bibliothecarius (ed. Allen and Neil 1999)	ninth century
Mystagogia (extracts)	Anastasius Bibliothecarius (ed. 1905)	ninth century
Quaestiones ad Thalassium	John Scottus Eriugena (ed. Laga and Steel 1980–90)	after 860
JOHN OF DAMASCUS		
De centum haeresibus	Robert Grosseteste (ed. Holland 1980)	1235–42
De fide orthodoxa	a. Burgundio of Pisa (ed. Buytaert 1955)	1154/5
	b. Cerbanus (ibid.)	twelfth century
	c. Robert Grosseteste (rev. of [a])	1235–42
De hymno trisagio	Robert Grosseteste (ed. Holland 1980)	1235–40
Dialectica	Robert Grosseteste (ed. Colligan 1953)	1235–42
Elementarius dogmatum	Robert Grosseteste (ed. Holland 1980)	1235–42

3. GREEK PHILOSOPHICAL WORKS TRANSLATED INTO ARABIC

DIMITRI GUTAS

The Graeco-Arabic translation movement, during which the vast majority of the works listed here were translated, lasted over two hundred years, from shortly after the foundation of Baghdad in 762 until almost the end of the tenth century. It was a complex cultural process that traversed a number of stages and reflected a constant interaction between the needs and demands of scholarship and administration on the one hand and, on the other, the ability and availability of those who could supply the information needed in terms of translated texts. Its history in detail remains largely to be written, and although scholarship has made great strides in the past few decades, we are still not in a position to draw accurate lists of translations complete with dates and names of translators. For this reason this information has not been provided in the list that follows – and, in any case, the precise date of a translation and its author are of immediate interest only to the specialist of Arabic philosophy during the period of the translation movement, and these scholars can appreciate and analyze the problems involved on their own.[8]

In the table below, the Greek authors and their works are listed, in order to avoid ambiguities, according to the *Thesaurus Linguae Graecae, Canon of Greek Authors and Works* (*TLG*) by Luci Berkowitz and Karl A. Squitier (Oxford: Oxford University Press, 1990), and provided with the following information:

(a) If the Arabic translation of the work in question is extant and published, reference is given when possible by its number in Hans Daiber's *Bibliography of Islamic Philosophy* (Leiden: Brill, 1999–2007). (In general, editions are included in this volume's bibliography only if they are not found in Daiber.) If there is more than one edition,

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[8] For a discussion of some of these problems see Dimitri Gutas, *Greek Thought, Arabic Culture* (London: Routledge, 1998) pp. 136–50, as well as Gerhard Endress and Dimitri Gutas, *Greek and Arabic Lexicon* (Leiden: Brill, 1992–) I: 1*–9*. A number of articles and book chapters offer narrative surveys of the information presented here in tabular form. For the earliest Greek philosophical texts available in Arabic see Gerhard Endress, "Building the Library of Arabic Philosophy. Platonism and Aristotelianism in the Sources of al-Kindī," in C. D'Ancona (ed.) *The Libraries of the Neoplatonists* (Leiden: Brill, 2007) 319–50. Conveniently located in the same volume, for the purposes of comparison with the information provided by Endress, is the survey of Syriac translations by Henri Hugonnard-Roche, "Le corpus philosophique syriaque aux VIᵉ–VIIᵉ siècles," 279–91. A bibliographically thorough survey of "Le opere tradotte" is offered by Cristina D'Ancona in the book edited by her, *Storia della filosofia nell' Islam medievale* (Turin: Einaudi, 2005), pp. 201–41, the most reliable and comprehensive general history of the classical period of philosophy in medieval Islam. A fundamental survey of medieval Arabic philosophical and scientific literature with full bibliography, to the time of its appearance, is offered in the book-length articles by Endress, "Die wissenschaftliche Literatur," in *Grundriss der Arabischen Philologie*, ed. H. Gätje and W. Fischer (Wiesbaden: Reichert, 1987–92) vols. II and III. A brief bibliographical guide on Greek works translated into Arabic, including philosophy, can be found in Gutas, *Greek Thought, Arabic Culture,* pp. 193–6. Indispensable, finally, for a complete account of the Arabic versions of works by individual philosophers, are the entries under their name in the *Dictionnaire des philosophes antiques*, ed. R. Goulet (Paris: CNRS, 1999–).

reference is generally given only to the latest (in whose introduction earlier editions are normally mentioned), or to the critically most sound. If none is satisfactory, then I list them all chronologically.

(b) If the Arabic translation is extant but not published, reference is given to the bibliographical source which lists the manuscripts and other sources in which it is extant.

(c) If the Arabic translation, to the best of our current knowledge, is not extant but there is a reference to it, in the Arabic bibliographical sources (mainly in Ibn al-Nadīm's *Fihrist*), as having existed, its title is put in square brackets. The information provided by such sources is still unprocessed by modern scholarship, so that its nature cannot be ascertained. Specifically, we cannot tell whether such a translation existed in Syriac or in Arabic, whether Ibn al-Nadīm and other bibliographers saw the actual translation or merely heard about it from their own sources, and finally whether the attribution of the work to the philosopher concerned is authentic or not.

Titles listed in *TLG* are given in Latin as they appear there; all others are given in English translation of the Arabic title in the sources.

Further, to help the user in assessing the significance and nature of the Arabic translations, the following signs precede the authors' names and titles of works:

* before an author's name: some works by this author that are not extant in Greek are preserved in Arabic;
+ before the title of a work: work extant in Arabic only;
> before the title of a work: the Arabic translation contains more text than the extant Greek original;
[ ] titles in brackets: the work is listed or mentioned in Arabic sources but no manuscript of it has so far been recovered; extant fragments are normally listed.

These abbreviations have also been used:

D	Daiber, *Bibliography of Islamic Philosophy* (1999). The references are to Daiber's serial numbers, followed by the letter *S* for those in the *Supplement* (2007).
DPhA, DPhAS	*Dictionnaire des Philosophes Antiques* (1999); *Supplément* (2003) (ed. Goulet)
F	Ibn al-Nadīm, *Kitāb al-Fihrist* (ed. Flügel)
GALex	*A Greek and Arabic Lexicon*, vol. I (ed. Endress and Gutas)
GAP	Endress, "Die wissenschaftliche Literatur," in *Grundriss der Arabischen Philologie*
GAS	*Geschichte des arabischen Schrifttums* (Sezgin)
GCAL	*Geschichte der christlichen arabischen Literatur* (Graf)
Ullmann *Med.*	Ullmann, *Die Medizin im Islam*
Ullmann *Natur*	Ullmann, *Die Natur- und Geheimwissenschaften im Islam*

AETIUS Doxogr. [Ps.-Plutarchus Chaeronensis]
> *De placitis reliquiae*; ed. and tr. Daiber (D2130)

Alexander Phil. Aphrodisiensis

(As listed in the entries in *DPhA* (Goulet and Aouad) and *DPhAS* (Fazzo), which
   should be consulted in all instances; the numbers before the titles refer to their
   numbers.)

(1) [*In Aristotelis analyticorum priorum librum i commentarium*]; F249,7–8

(2) [*In Aristotelis topicorum libros octo commentaria*]; F249,18–24

(3) [*In Aristotelis meteorologicorum libros commentaria*]; F251,9

(4) *In Aristotelis metaphysica commentaria*; F251,27–8; frg. ed. Freudenthal (D3179);
   GAP III,32n49

(5) +*Commentary on Categories*; F248,25; frg. ed. Zonta (D9497/1)

(6) [*Commentary on De Interpretatione*]; F249,2

(9) [*In analytica posteriora commentaria*]; F249,13; F252,27–8

(10) [*In Aristotelis sophisticos elenchos commentarius*]; F249,29

(11) +*Commentary on Physics*; F250,7; F252,27; frg. ed. Badawī (D795); frg. ed. and
   tr. Giannakis (D3540)

(12) [*Commentary on De Caelo*]; F250,29

(13) +*Commentary on De Generatione et Corruptione*; F251,4; ed. and tr. Gannagé
   (D3301/3*S*), tr. E. Gannagé (2005).

(16) *On the Soul*; cf. Gätje (D3400), pp. 69–70; frg. ed. Günsz (D3798)

(19a–p) >Ἀπορίαι καὶ λύσεις; various *Quaestiones* extant in Arabic (some are by
   Philoponus); see the lists in *DPhA* and *DPhAS*

(21) >*De anima libri mantissa*; various treatises extant in Arabic; see the list in *DPhA*
   and *DPhAS*

(22) +*On Providence*; F253,8; ed. and tr. Thillet, 2003

(23) +*On Time* (= *Refutation of Galen on Time and Place*, F253,5–6 ?); ed. Badawī
   (D385)

(24) +*On the Principles of the Universe*; F253,7; ed. and tr. Genequand (D3431/1*S*); ed.
   Endress (D2641/1*S*)

(25) +*Refutation of Galen's Critique of Aristotle on the Theory of Motion*; ed. and tr.
   Rescher and Marmura (D395)

(26) +*Refutation of Xenocrates on Form and Genus*; ed. Badawī (D382); tr. Pines (D7058)

(27) +*Refutation of Galen on the Possible* (?); frg. ed. and tr. Rescher and Marmura
   (D7503)

(28) +*On the Conversion of Premises*; F253,6–7; ed. Badawī (D377)

(29) +*On the Specific Difference*; F253,11; ed. and tr. Dietrich (D2344)

(30) +*On the Governance of the Spheres* (= a parallel version of *On Providence*, no. 22
   above); ed. and tr. Ruland (D7695)

(31) +*On Sound*; ed. Badawī (D383)

(32) *On Form*; ed. Badawī (D384), tr. Badawī (D1119)

(33) (Ps.-Alexander = Philoponus) *That the Act is More General than Motion*; ed. and
   tr. Hasnawi (D4019)

(34) +*On the Division of Genera*; ed. Badawī (D379), tr. Badawī (D1119)

(35) (Ps.-Alexander = Philoponus) *On Creation ex nihilo*; F254,9; ed. and tr. Hasnawi
   (D4019)

(36) (Ps.-Alexander = Philoponus) *That Every Separate Cause is in All Things and in
   None*; ed. and tr. Zimmermann (D9484)

(37) *On the Celestial Sphere*; MS Istanbul, Carullah 1279, ff. 53b–54a; part of (24) above

(38) Ps.-Alexander (?), *Poetic Gleanings*, actually on topics; see Zimmermann (D9486)

(39) +*On the Cause*; ed. Endress (D2641/1*S*); ed. and tr. Genequand (D3431/1*S*)

(43) [*On Melancholy*]; F253,11

(57) [*That Being Is Not of the Same Genus as the Categories*]; F253,7–8

(59) >*Problemata*; *GAP* III,139n3; cf. Filius (D3084*S*) p. xvi

*Alexandri Magni Epistulae, *see* Aristoteles, *Epistulae*

*Alexandrini Philosophi, *see* Summaria Alexandrinorum

*Allīnūs (?)
[*Commentary on the Categories*]; F248,21
+Frg. tr. F. Rosenthal (D7618)

Ammonius Phil. Alexandrinus

[*On the Purposes of Aristotle's Books*]; F253,22
[*In Aristotelis Categorias commentarius*]; F248,21
[*Commentary on the Topics*]; F249,19–24
[*Commentary on Aristotle on the Creator*]; F253,22
[*Aristotle's Proof of the Oneness (of God)*]; F253,22–3

Anacharsis Scythicus
+Sayings; in Arabic gnomologia, cf. Gutas (D3818)

Anonymi *De Anima Paraphrasis*
+ ed. and tr. Arnzen (D879)

Aristoteles Phil. et Corpus Aristotelicum

Analytica priora ed. Badawī (D757), ed. Jabr (1999) I: 169–416

Analytica posteriora; ed. Badawī (D758); ed. Jabr (1999) I: 417–620

De anima; survey of the transmission in Arabic by Gätje (D3400); ed. Badawī (D762, 1088); medieval Hebrew tr. from the Arabic ed. Bos (D763); medieval Latin tr. from the Arabic ed. Crawford (D4522), tr. of the Latin by Taylor (2009); cf. *GAP* III,29n27, 33n57. *See also* Anonymi, *De Anima Paraphrasis*

De caelo; survey of the transmission in Arabic by Endress (D2643); ed. Badawī (D1089), ed. Endress (forthcoming); cf. *GALex* I: 17*

Categoriae; ed. Bouyges (D4550); ed. Badawī (D761); ed. Jabr (1999) I: 1–96

[*De coloribus*]; apparently not translated; cf. Gätje (D3404) p. 285

De divinatione per somnum, see *Parva naturalia*

Divisiones aristoteleae; ed. Kellermann (D5005); *GALex* I: 33*

+*Epistulae*; survey of the transmission in Arabic by Gutas, "Epistolary 'Novels'" (forthcoming); cf. Gutas *Greek Thought* (1998) pp. 194–5; ed. Maróth, in *Correspondence* (2006)

Ethica Nicomachea; unpublished ed. and tr. Dunlop; ed. Akasoy and Fidora (D778, 778*S*)

De generatione animalium; ed. Brugman and Drossaart Lulofs (D765)

De generatione et corruptione; survey of the transmission in Arabic by Eichner (D4537/1*S*, pp. 291–332); medieval Hebrew translation from the Arabic translation ed. Tessier (D768)

Historia animalium; ed. Badawī (D779)

De insomniis, see *Parva naturalia*

De interpretatione; ed. Badawī (D770); ed. Jabr (1999) I: 97–166

De longitudine et brevitate vitae, see *Parva naturalia*

Magna moralia; ed. Kellermann (D5005); *GALex* I: 20*

Mechanica; extant paraphrastic summary ed. and tr. Abattouy (2001)

De memoria et reminiscentia, see *Parva naturalia*

Metaphysica; survey of the transmission in Arabic by Bertolacci (D1432/1*S*); ed. Bouyges (D1591), ed. Badawī (D786), ed. Mishkāt (D787)

Meteorologica; the Arabic and medieval Latin tr. from the Arabic ed. Schoonheim (D7978*S*); cf. *GAP* III,28n22

[*Mirabilium auscultationes*]; no trace has so far been found in Arabic; the entry on it in Peters *Aristoteles Arabus* (1968) p. 61 is based on a mistaken reference by Walzer, corrected by Walzer later in his *Greek into Arabic* (1962) 140n5–6

De mundo; ed. Brafman (D1603); cf. *GAP* III,30n41

Oeconomica; ed. Maʾlūf (D793), tr. Shunnar (D9049); cf. Peters *Aristoteles Arabus* (1968) pp. 62–3

De partibus animalium; ed. Kruk (D773)

Parva naturalia; survey of the transmission in Arabic by Gätje (D3400) pp. 81–92; ed. Hansberger, in *Transmission* (2006)

Physica; ed. Badawī (D795)

Physiognomica; ed. and tr. Ghersetti, in *Il Kitāb Arisṭāṭalīs* (1999)

Poetica; ed. and modern Latin tr. Margoliouth (D5935), ed. and modern Latin tr. Tkatsch (D8661), ed. Badawī (D797), ed. ʿAyyād (D798)

Politica; tr. of parts only; cf. Pines (D7037), Brague (D1607)

>*Problemata*; ed. Filius (D3084*S*); cf. *GAP* III,139n3

[*Protrepticus*]; cf. Fakhry (D2789)

Rhetorica; ed. Lyons (D801)

Sophistici elenchi; ed. Badawī (D803); ed. Jabr (1999) II: 897–1203

De sensu et sensibilibus, see *Parva naturalia*

De somno et vigilia, see *Parva naturalia*

Testamentum; ed. and modern Latin tr., references in *GALex* I: 23*

Topica; ed. Badawī (D809); ed. Jabr (1999) II: 627–896

De virtutibus et vitiis; ed. Kellermann (D5005); *GALex* I: 34*

>Sayings, ed. Gutas (D3809); cf. Gutas (D3818)

+Ps.-Aristoteles

 +*De lapidibus*, ed. Ruska; see Peters, *Aristoteles Arabus* (1968) p. 60

 +*De pomo*, ed. Khayrallāh (D775); see Aouad in *DPhA* I: 537–41; cf. Kotzia, Περί του Μήλου (2007)

 +Pseudepigrapha; see Peters, *Aristoteles Arabus* (1968) 55–75, *GAP* III,31n42

 +*Secretum secretorum*, ed. Badawī (D780), ed. al-Aʿwar (D802); cf. Forster, *Das Geheimnis der Geheimnisse* (2006).

*Bryson Phil.
   +Οἰκονομικός; ed. Plessner (D7146)

Cebes Phil.
   Cebetis tabula; see Gutas in *DPhA*; cf. F. Rosenthal (D7647)

*Corpus Hermeticum
   Numerous works ascribed to Hermes are preserved in Arabic. The degree to which
   these are actually translations from the Greek or correspond to surviving works and
   fragments in Greek has been little investigated. See Goulet in *DPhA* III: 649–
   50; *GAS* IV,38–44; Ullmann *Natur* 165–70; *GAP* III,144–5; van Bladel, *Hermes
   Arabicus* (2004).

*Diogenes Phil. et Trag.
   >Sayings; tr. Gutas (D3820)

*Eudemus Phil. Rhodius
   +Sayings; ed. and tr. Gutas (D3807/1S)

*Galenus Med. Pergamenus
   (Only philosophically relevant works are given, as listed in the entry by V. Boudon
     in *DPhA*, which should be consulted in all instances; the numbers before the titles
     refer to her numbers.)
   (1) *Adhortatio ad artes addiscendas* (*Protrepticus*); *GAS* III,138 (#151); Ullmann *Med.*
        53 (#73); extant Arabic epitome ed. Badawī (D3283)
   (3) *Quod optimus medicus sit quoque philosophus*; ed. and tr. Bachmann (D1065)
   (4) *De sectis ad eos qui introducuntur*; ed. Sālim (1977)
   (6) [*De placitis Hippocratis et Platonis*]; *GAS* III,105 (#37); Ullmann *Med.* 40 (#12)
   (7) *Quod animi mores corporis temperamenta sequantur*; ed. and tr. Biesterfeldt (D1457,
        D1456)
   (8) (8a) [*De propriorum animi cuiuslibet affectuum dignotione et curatione*]; Ullmann *Med.*
        51 (#65)
   (9) *De consuetudinibus*; ed. and tr. Klein-Franke (D5210)
   (10) [*Institutio logica*]; Ullmann *Med.* 51 (#63)
   (12) *De elementis secundum Hippocratem libri ii*; cf. *GAP* III,120n25; ed. Sālim (1987)
   (14) [*On the Authentic and Inauthentic Book by Hippocrates*]; Ullmann *Med.* 53 (#72);
         GAS III,137 (#146)
   (15) +*On Cohesive Causes*; ed. and tr. Lyons (1969).
   (16) [*On Antecedent Causes*]; Ullmann *Med.* 57 (#91); *GAS* III,135 (#138)
   (17) [*An Outline of Empiricism in Medicine*]; Ullmann *Med.* 52 (#67); *GAS* III,131
         (#118)
   (18) +*On Affections and their Cure, III*; see Steinschneider, *Die hebräischen Übersetzungen*
         §415,13
   (19) +*De experientia medica*; ed. and tr. Walzer (D3284)
   (20) =(8)
   (21) +*That Good Men Benefit from Their Enemies*; Ullmann *Med.* 65 (#117)
   (22) >*De demonstratione*; Ullmann *Med.* 62 (#12); *GAP* III,31 and 53n180; for ed. frg.
         see *DPhA*

(23) *De propriis placitis*; Ullmann *Med.* 51 (#64); for the surviving parts see *DPhA*

(24) +*De nominibus medicinalibus*; ed. and tr. Meyerhof and Schacht (1931)

(25) +*De moribus*; ed. Kraus (D3286), tr. Mattock (D6129)

(26) >*In Platonis Timaeum commentarius* (Περὶ τῶν ἐν τῷ Πλάτωνος Τιμαίῳ ἰατρικῶς εἰρημένων); *GAS* III,126 (#90); Ullmann *Med.* 64 (#115); frg. ed. P. Kahle (1934).

(27) +*Compendium Timaei*; ed. and tr. Kraus and Walzer (D3279), ed. Badawī (D3280); see Gutas, "Plato Arabus," in *DPhA*

(28) +*Compendium Rei publicae*; Ullmann *Med.* 64 (#114b); used by Averroes for his *Middle Commentary*, ed. and tr. E. I. J. Rosenthal (D4558; cf. D4559–62); see Gutas, "Plato Arabus," in *DPhA*

(29) +*Compendium Legum*; Ullmann *Med.* 64 (#114c); epitomes by al-Fārābī and Ibn al-Ṭayyib (see Gutas D3808), ed. and tr. Gabrieli (D2965), ed. Druart (D2510/1); see Gutas, "Plato Arabus," in *DPhA*

(30) +[*Compendium Phaedonis*]; Ullmann *Med.* 64 (#114d); cf. Rowson (D7660) pp. 29–41; see Gutas, "Plato Arabus," in *DPhA*

   (30.1) +[*Compendium of Cratylus*]; see Gutas, "Plato Arabus," in *DPhA*

   (30.2) +[*Compendium of Sophist*]; see Gutas, "Plato Arabus," in *DPhA*

   (30.3) +[*Compendium of Politicus*]; see Gutas, "Plato Arabus," in *DPhA*

   (30.4) +[*Compendium of Parmenides*]; see Gutas, "Plato Arabus," in *DPhA*

   (30.5) +[*Compendium of Euthydemus*]; see Gutas, "Plato Arabus," in *DPhA*

(32) [*De dolore evitando*]; Ullmann *Med.* 65 (#118); for frg. see *DPhA*

(33) +*In primum movens immotum*; Ullmann *Med.* 65 (#116); see *DPhA*

(34) [*On the Providence of the Creator*]; see *DPhA*

(36) [Περὶ οὐσίας τῆς ψυχῆς κατ' Ἀσκληπιάδην]; Syriac tr. Degen, in "Galen im Syrischen" n. 124

(41) [Περὶ τοῦ τῶν συλλογισμῶν ἀριθμοῦ]; Syriac tr. Degen, ibid., n. 115

(48) [*On the Possible*]; see *DPhA*

(95) +*Platonicorum dialogorum compendia octo*; see *GAP* III,31n43, 43n121; Ullmann *Med.* 63 (#114); Gutas, "Plato Arabus," in *DPhA*

(98) [*Commentary on De Interpretatione*]; F249,2–3

Ars medica (*parva*); *GAS* III,80 (#4); Ullmann *Med.* 45 (#38); *GAP* III,120n25

De usu partium; *GAS* III,106 (#40); Ullmann *Med.* 41 (#15)

In Hippocratis aphorismos commentarii; *GAS* III,123 (#71); Ullmann *Med.* 50 (#58)

[*De libris propriis*]; *GAS* III,78 (#1); Ullmann *Med.* 35 (#1)

[*De ordine librorum suorum ad Eugenianum*]; *GAS* III,79 (#2); Ullmann *Med.* 35 (#2)

+*In Hippocratis de aere aquis locis commentaria*; *GAP* III,119n24; *GAS* III,123 (#81); Ullmann *Med.* 61 (#107); ed. Strohmaier in preparation

+*De examinando medico*, ed. Iskandar (*GAP* III,120n25, 127n73); Ullmann *Med.* 52 (#70)

+*De partibus artis medicativae*, ed. Lyons; *GAS* III,112 (#49); Ullmann *Med.* 52 (#69)

+*De somno et vigilia*; *GAS* III,126 (#92); Ullmann *Med.* 55 (#84)

+[*De voce*]; *GAS* III,103 (#30); Ullmann *Med.* 54 (#79)

*Pseudo-Galenus Med.

[*Definitiones medicae*]; *GAS* III,138 (#153); Ullmann *Med.* 38 (#3)

+*De Plantis*; *GAS* IV,314

+*Book of Poisons*; *GAS* III,121 (#67); Ullmann *Med.* 61 (#106)

+*On the Soul*; ed. Jellinek (1852)

+*In Hippocratis legem commentarius*; ed. F. Rosenthal: *GAS* III,123 (#70); Ullmann *Med.* 62 (#111)

+*Oeconomica*; see Plessner (D7146), pp. 205–13

Georgius Gemistus Plethon

Works preserved in Arabic translation in MS Istanbul, Ahmet III, 1896; cf. Tardieu, "La recension arabe" (1995) pp. 157–8.

*Hippocrates Med. et Corpus Hippocraticum

(Only the philosophically relevant works are listed, as discussed by J. Jouanna and C. Magdelaine in *DPhA* III, 786–90)

[*De prisca medicina*]; *GAS* III,43 (#24); Ullmann *Med.* 31 (#13)

De aere aquis et locis; ed. Mattock and Lyons (*GALex* I: 27*–28*); *GAS* III,36 (#8); Ullmann *Med.* 27 (#3)

Aphorismi; ed. Tytler (*GALex* I: 28*); *GAS* III,28 (#2); Ullmann *Med.* 28 (#4)

Jusjurandum; ed. and tr. see Ullmann *Med.* 32 (#25); *GAS* III,28 (#1); *GAP* III,119n23

Lex; ed. and tr. see Ullmann *Med.* 33 (#27); *GAS* III,38 (#11)

De humoribus; ed. Mattock (*GALex* I: 29*); *GAS* III,35 (#6); Ullmann *Med.* 30 (#9)

De natura hominis, ed. Mattock and Lyons (*GALex* I: 29*–30*); *GAS* III,37 (#9); Ullmann *Med.* 27 (#2)

De ventis; Ullmann *Med.* 32 (#22); *GAS* III,46 (#8)

[*De carnibus*]; *GAS* III,46 (#11)

De alimento; ed. and tr. Mattock (*GALex* I: 28*); Ullmann *Med.* 30 (#10); *GAS* III,41 (#16)

[*De medico*] (?); Ullmann *Med.* 33 (#28)

>*De septimanis*; Ullmann *Med.* 32 (#20); *GAS* III,40 (#14)

*Pseudo-Hippocrates Med.

>*Epistulae*; *GAS* III,43 (#21); Ullmann *Med.* 34 (#30)

Testamentum; tr. F. Rosenthal (Ullmann *Med.* 33, #26; *GAS* III,39, #12)

+*Secreta Hippocratis / Capsula eburnea*; *GAS* III,39 (#12b); Ullmann *Med.* 33 (#29)

Hippolytus Scr. Eccl. Romanus

Refutatio omnium haeresium; partially preserved in "Ps.-Ammonius," ed. Rudolph (D7681); see *GAP* III,30n37, 146n52

Historia et Sententiae De Ahiqar

Historia et sententiae de Ahiqar; ed. in Conybeare *et al.*, *The Story of Ahikar* (1898)

*Iamblichus Phil.

[*Commentary on the Categories*]; F248,23

[*Commentary on De Interpretatione*]; F249,2

+*Commentaria in Carmen aureum Pythagorae*; ed. Daiber (D2158)

Isocrates Orat.
  +Sayings; ed. Alon (D436)

*Joannes Philoponus Phil. Alexandrinus
  [*In Aristotelis meteorologicorum libros commentaria*]; *GCAL* I,418 #4
  [*In Aristotelis libros de generatione et corruptione commentaria*]; *GCAL* I,418 #4
  >*In Aristotelis physicorum libros commentaria*; F250,18, 255,2; ed. Badawī (D795); tr.
    Giannakis (D3541); tr. Lettinck (D7012); ed. and tr. of the corollaries on place and
    void Giannakis (D3542/1)
  De aeternitate mundi contra Proclum; F254,25; frg. (from Bīrūnī) ed. and tr. Giannakis
    (D3541/1S); see above, Alexander Aphrodisiensis, nos (33) and (35), and Hasnawi
    (D4019)
  +*Contra Aristotelem*; F254,27; frg. ed. and tr. Mahdi (D5784, D5773); frg. ed. and tr.
    Kraemer (D5265); frg. tr. Wildberg (D9267)
  +*De contingentia mundi*; *GCAL* I,418 #1; ed. and tr. Troupeau (D8713); tr. Pines
    (D7036)
  +*In Galeni libros commentaria*; F255,1; *GCAL* I,418 #4
  [*Every finite body has a finite power*]; F254,25–6
  [*Commentary on Aristotle's Problemata*]; F254,26–7

Nemesius Theol.
  De natura hominis; F255,10; ed. Weisser, in *Buch über das Geheimnis* (1980); cf. Samir
    (D7873)

*Nicolaus Hist. Damascenus
  +*De plantis*; *GAS* IV,312–3; *GAP* III,30n40; ed. and tr. Drossaart Lulofs (D2491)
  +*Epitome of Aristotle's philosophy*; F254,4; frg. ed. and tr. Drossaart Lulofs (D2489); frg.
    ed. and tr. Takahashi (D8501/6S)
  [*Summary of Aristotle's De anima, one book*]; F254,3
  [*Summary of Aristotelian zoology*]; F251,23; Ullmann *Natur* 9
  [*Refutation of those who make the act and what is acted upon identical*]; F254,4

Nicomachus Math. Gerasenus
  Introductio arithmetica; ed. Kutsch (*GAP* III,65n20)

Olympiodorus Alchim.
  Εἰς τὸ κατ' ἐνέργειαν Ζοσίμου; see Endress, "Building the Library" (2007)
    327n18

*Olympiodorus Phil.
  [*Commentary on Plato's Sophistes*]; F246.12
  [*Commentary on De Generatione et Corruptione*]; F251,5
  +*In Aristotelis Meteora paraphrasis*; F251,8; ed. Badawī (D6911)
  [*Commentary on De anima*]; F251,13–14

Oracula Chaldaica
  Oracula; frg. ed. and tr. Tardieu, in "La recension arabe" (1995)

Plato Phil. (See Gutas, "Plato Arabus," in *DPhA*)

No dialogue of Plato is known to have been fully translated into Arabic, and none survives. Some portions of the more famous dialogues were literally translated, but for the most part the works of Plato were known in Arabic through the epitomes of Galen (for which see under Galen), citations in the works of other authors who quoted him (notably Galen and Aristotle in *Metaphysics* A and M–N), and doxographies and gnomologia, the most significant among which is al-ʿĀmirī's (?) *Al-Saʿāda wa-al-isʿād* (for which see Arberry, D736). Of the dialogues that were known the best, three were known by name, *Laws* (Gutas, D3808), *Republic* (Reisman, D7457/4), and *Timaeus* (evidence of an abbreviated translation by Ibn al-Biṭrīq in al-Kindī's work: Rescher, D7483), and one anonymously, *Phaedo* (Rowson, D7660). For the *Symposium*, see Gutas (D3817); for the *Meno*, see Endress (D2642). For his sayings see Gutas (D3809).

Plotinus Phil.

Enneades IV–VI; ed. and tr. Dieterici (D804, D2340); ed. Badawī (D806); tr. Lewis (D7155); see *GAP* III,30n35, and Adamson (D218/4S)

Plutarchus Biogr. et Phil. Chaeronensis (see Gutas [D3818] 4944n5)

[*De cohibenda ira*]; F254,8
[*On the Soul = De animae procreatione in Timaeo?*]; F254,8
[*De capienda ex inimicis utilitate*]; F254,7–8

Pseudo-Plutarchus

Placita Philosophorum, see Aetius
[*On Training = Περὶ ἀσκήσεως*]; F254,8; cf. Gutas (D3818) 4944n5

Pseudo-Polemon

Physiognomica; ed. and tr. Hoyland (2007)

Porphyrius Phil. vel Malchus (see Walzer [D9152])

Vita Pythagorae; see F. Rosenthal (D7644)
Isagoge sive quinque voces; ed. Badawī (D7184); ed. Ahwānī (D7185); *GALex* I: 32*–33*
[*In Aristotelis Categorias*]; F248,20
[*Commentary on De Interpretatione*]; F249,2
[*Introduction to Categorical Syllogisms*]; F253,15–16
[*Commentary on Physics*]; F250,21–2
[*On the Elements*]; F253,17
+*On the Soul*; ed. and tr. Kutsch (D5362)
[*On the Intellect and the Intelligible = Ἀφορμαὶ πρὸς τὰ νοητά?*]; F253,16
[*Refutation of ? on the Intellect and the Intelligible*]; F253,16–17
[*Commentary on Nicomachean Ethics*]; F252,2
[*Epistula ad Anebonem*]; F253,16; frg. tr. F. Gabrieli (D3261)
Fragmenta; ed. Wasserstein (D7183)
[*Historia philosophiae*]; F253,18; frg. ed. F. Rosenthal (D7614)

*Proclus Phil. Atheniensis (see G. Endress, *Proclus Arabus* [1973] = D2656)

[*In Platonis rem publicam commentarii*]; Endress, *Proclus Arabus* 29

Institutio theologica; *GAP* III,30n36; ed. Endress (D2656); frg. ed. Badawī (D7123); see
also Alexander Aphrodisiensis, no. 36 – *De causis*; Endress, *Proclus Arabus* 18–24; ed.
Badawī (D782); ed. and tr. Taylor (D8565); ed. Badawī (D7207)

[*Institutio physica*]; Endress, *Proclus Arabus* 27

In Platonis Timaeum commentaria; Endress, *Proclus Arabus* 24; frg. tr. Pfaff (D7205)

[*De decem dubitationibus*]; Endress, *Proclus Arabus* 27–8

+*De aeternitate mundi*; Endress, *Proclus Arabus* 15–18; frg. ed. Badawī (D7206); tr.
Badawī (D1119); tr. Anawati (D645); ed. and tr. Maróth (D5998)

+*Problemata physica*; Endress, *Proclus Arabus* 26; ed. Badawī (D7208)

+(Ps.-Proclus?)[9] *Comm. in Carmen aureum Pythagorae*; Endress, *Proclus Arabus* 26–7;
ed. Linley (D5575)

[*In Platonis Gorgiam commentaria*]; Endress, *Proclus Arabus* 28

[*In Platonis Phaedonem commentaria*]; Endress, *Proclus Arabus* 28–9

[*In Aristotelis De Interpretatione commentaria*]; Endress, *Proclus Arabus* 29–30

[*On the Supernal Substances*]; Endress, *Proclus Arabus* 30

[*On the Atom*]; Endress, *Proclus Arabus* 30

Claudius Ptolemaeus Math.
Syntaxis mathematica; *GAS* VI,88–9; *GAP* III,89n23
Tetrabiblos; *GAS* VII,43 (#1); *GAP* III,105n7

*Pseudo–Ptolemaeus
Fructus; *GAS* VII,44–5 (#2); *GAP* III,105n8

*Ptolemaeus Pinacographus, 4 A.D.?
+*Vita Aristotelis et pinax*; F255,11–12; tr. Plezia (D7150); cf. Düring (D2554), Gutas
(D3822)

<Pythagoras> Phil.
Carmen aureum; *GAP* III,39n91; cf. Endress, "Building the Library" 331n30; ed.
Cheikho (D7239); ed. Ullmann (D8820)
>Sayings; ed. and tr. Gutas (D3809); cf. Gutas (D3818)

Secundus, *see* Vita et Sententiae Secundi

<Septem Sapientes> Phil.
>Sayings in Arabic gnomologia; cf. Gutas (D3818)

Simplicius Phil. (see Gätje [D3399])
[*In Aristotelis Categorias commentarium*]; F248,21; cf. Türker (D8735)
[*In Aristotelis libros De anima commentaria*]; F251,15
[*Commentary on the Introduction of Euclid's Elements*]; F268,15

Socrates Phil. Atheniensis
>Sayings; ed. and tr. Gutas (D3809); ed. and tr. Alon (D438, D439)

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[9] See L. G. Westerink, "Proclus commentateur des *Vers d'Or*," in G. Bos and G. Seel (eds.), *Proclus
et son influence* (Zurich: Éditions du Grand Midi, 1987), 62–78.

Stephanus Phil. Alexandrinus, Constantinopolitanus
[*Commentary on Categories*]; F248,20–1

Summaria Alexandrinorum
[*On De anima*]; F251,15–16

Syrianus Phil. Atheniensis
[*In Aristotelis Metaphysica B commentaria*]; F251,31

*Thales Phil.
>Sayings; in Arabic gnomologia, cf. Gutas (D3818)

*Themistius Phil. et Rhet.
Περὶ φιλίας; Syriac tr. ed. Sachau (D7759)
Περὶ ἀρετῆς; Syriac tr. ed. Mach (D8613)
[*Commentary on Categories*]; F248,21
[*In Aristotelis Analyticorum priorum paraphrasis*]; F249,8
Against Maximus, on the Reduction of the Second and Third Figure to the First; ed. Badawī
    (D8612)
[*In Aristotelis Analyticorum posteriorum paraphrasis*]; F249,12–13
[*Commentary on Topics*]; F249,23
[*Commentary on Poetics*]; F250,5
[*In Aristotelis physica paraphrasis*]; F250,22
Commentary on De caelo; F250,30; ed. Landauer (D8604)
[*Commentary on De generatione et corruptione*]; F251,6
In Aristotelis libros de anima paraphrasis; F251,12–18; ed. Lyons (D8603); partial tr. Gätje
    (D3385)
+*Epitome of Aristotelian zoology*; Ullmann *Natur* 9–10; ed. Badawī (D8608)
+*Commentary on Book Lambda of the Metaphysics*; F251,30; ed. Landauer (D8606); ed.
    Badawī (D8605, D 8607)
[*Commentary on Nicomachean Ethics*]; F252,3
[*On the Soul = De anima paraphrasis?*]; F253,27
+*Letter to Julian, on politics*; F253,26–7 mentions two letters without indication of their
    identity; ed. Cheikho (D8609); ed. Sālim (D8610); ed. Shahid (D8611)

*Theon Smyrnaeus
+*Life and Works of Plato*; F246,4; 255,12–13; ed. in Ibn al-Qifṭī, ed. Lippert (D7291)
    17–25; cf. Lippert (D5577)

Theon (?)
[*Commentary on Categories*]; F248,22

Theophrastus Phil.
[*De causis plantarum*]; F252,9–10; *GAS* IV,313
[*De sensu et sensibilibus*]; F252,8
Metaphysica; ed. Gutas (forthcoming)
[*Commentary on Categories*]; F248,21; F252,10–11
[*Commentary on De Interpretatione*]; F249,3

+*Meteorologica*; ed. and tr. Daiber (D2154); frg. ed. and tr. Takahashi (D8501/6S)
[*On the Soul*]; F252,7
[*On Education*]; F252,8
+Sayings; ed. Gutas (D3811)
+Fragments; ed. and tr. Gutas (D8617), ed. and tr. Daiber (D2171)

VITA ET SENTENTIAE SECUNDI
  Vita Secundi; ed. Perry (D6991)
  >Sayings; in Arabic gnomologia, cf. Gutas (D3818)

4. ARABIC PHILOSOPHICAL WORKS TRANSLATED INTO LATIN

CHARLES BURNETT

The following table lists translations according to the chronological order of the author in the Arabic original. Works that have not survived in Arabic, or in the Latin translation, or that have not been identified, are marked with an asterisk (*). Translations made via the intermediary of a Hebrew text are marked with an obelisk (†). Certain works that primarily belong to other genres, such as mathematics and medicine, have been added because they include substantial discussions of topics germane to *falsafa*. The following abbreviations have been used: AL = *Aristoteles Latinus*; ASL = *Aristoteles Semitico-Latinus*; AvL = *Avicenna Latinus*. A previous version of this table published in the *Cambridge Companion to Arabic Philosophy* contains fuller bibliographical details, and extends into the Renaissance.

Author and Work	Translator	Date
ARISTOTLE		
Posterior Analytics	Gerard of Cremona (AL IV.3)	before 1187
Rhetoric	Hermann the German	1240/50
Physics	Gerard of Cremona	before 1187
De caelo	Gerard of Cremona	before 1187
De generatione et corruptione	Gerard of Cremona	before 1187
Meteora I–III, paraphrase of Yaḥyā ibn al-Biṭrīq	Gerard of Cremona (ASL XII)	before 1187
De animalibus	Michael Scot (ASL V)[10] (=*Historia an., De part. an., De gen. an.*)	before 1220
PSEUDO-ARISTOTELIAN AND RELATED WORKS		
On the Pure Good (= Proclus, *Elements of Theology*)	Gerard of Cremona (*Liber de causis*) (ed. Pattin 1966)	before 1187

[10] Michael Scot also translated the *De caelo*, and perhaps the *Physics*, *De anima*, and *Metaphysics*, as part of Averroes's Long Commentaries on these works (see Appendix B1, and below under 'Averroes').

Author and Work	Translator	Date
*On the Causes of the Properties of the Four Elements	Gerard of Cremona (Bk. I only) (ed. Vodraska 1969)	before 1187
On Plants (Nicholas of Damascus)	Alfred of Shareshill (ASL IV)	*ca.* 1200
Secret of Secrets	a. John of Seville (partial) (ed. Suchier 1883)	*ca.* 1120
	Philip of Tripoli (complete) (ed. in Roger Bacon's commentary [ed. Steele *et al.* V: 2–172])	*ca.* 1220
On the Apple (The Death of Aristotle)	† Manfred (*De pomo*) (ed. Plezia 1960)	*ca.* 1260
Summa Alexandrinorum (a compendium from the *Nicomachean Ethics*)	Hermann the German	1243–4
EUCLID		
Elements	a. Adelard of Bath (ed. Busard 1983)	*ca.* 1120s
	b. Hermann of Carinthia (ed. Busard 1967–77)	*ca.* 1140s
	c. Gerard of Cremona (ed. Busard 1984)	before 1187
PTOLEMY		
Almagest	a. Abdelmessie Wittoniensis	*ca.* 1130
	b. Gerard of Cremona	before 1175
ALEXANDER OF APHRODISIAS		
On the Intellect	Dominicus Gundisalvi ("*est cum Gond.*") (ed. Théry, in "Autour de décret" 1926)	*ca.* 1160/90
On Time, On the Senses, and *That Augment and Increase Occur in Form, not in Matter*	Gerard of Cremona (ed. in Théry, ibid.)	before 1187
THEMISTIUS		
Posterior Analytics Comm.	Gerard of Cremona (ed. O'Donnell 1958)	before 1187
NEMESIUS		
On the Elements (= *On the Nature of Man*, ch. 6)	Anonymous (Constantine the African?) (ed. Burnett, in "Physics" 2002)	twelfth century

(*cont.*)

Author and Work	Translator	Date
PSEUDO-APOLLONIUS		
On the Secrets of Nature	Hugo of Santalla (ed. Hudry 1997–9)	*ca.* 1150
MĀSHĀʾALLĀH		
On the Elements and Orbs (On the Knowledge of the Movement of the Orb)	a. Anonymous b. Gerard of Cremona	before 1149 before 1187
ANONYMOUS		
Turba philosophorum	Anonymous (ed. Ruska 1931)	
QUSṬĀ IBN LŪQĀ		
On the Difference between Spirit and the Soul	John of Seville (ed. Wilcox 1985)	1125/52
On Physical Ligatures	Constantine the African (ed. Wilcox and Riddle 1995)	before 1198
ABŪ MAʿSHAR		
Great Introduction to Astrology	a. John of Seville and Limia (ed. Lemay 1995–6) b. Hermann of Carinthia (ed. Lemay 1995–6)	1133 1140
AL-KINDĪ		
On the Five Essences	Gerard of Cremona (ed. Nagy, in *Philosophischen Abhandlungen* 1897)	before 1187
On Sleep and Vision	Gerard of Cremona (ed. Nagy, ibid.)	before 1187
On the Intellect	a. Dominicus Gundisalvi (?), *De intellectu* (ed. Nagy, ibid.) b. Gerard of Cremona, *De ratione* (ed. Nagy, ibid.)	*ca.* 1160/90 before 1187
Two Letters on Weather Forecasting	Anonymous, *De mutatione temporum* (ed. Bos and Burnett, in *Scientific Weather Forecasting* 2000)	
On Rays (The Theory of the Magic Arts)	Anonymous, *De radiis stellarum* (ed. d'Alverny and Hudry 1974)	
Commentary on *Almagest*, Bk. 1	*Hugo of Santalla	
AL-FĀRĀBĪ		
On the Classification of the Sciences	a. Dominicus Gundisalvi (ed. Schneider 2006) b. Gerard of Cremona (ed. Schupp 2005)	*ca.* 1160/90 before 1187

Author and Work	Translator	Date
On the Intellect	Dominicus Gundisalvi (? "*est cum Gond.*") (ed. Gilson, in "Les sources" 1929–30)	*ca.* 1160/90 (?)
Directing Attention to the Way to Happiness (Kitāb al-tanbīh ʿalā sabīl al-saʿāda)	Dominicus Gundisalvi (?), *Liber exercitationis ad viam felicitatis* (ed. Salman 1940)	*ca.* 1160/90 (?)
The Sources of the Questions[11] (*ʿUyūn al-masāʾil*)	Anonymous (fragment) (*Fontes questionum/Flos Alpharabii secundum sententiam Aristotelis*)	
On De Interpretatione	Anonymous (abbrev. excerpts) (ed. Grignaschi, in "Les traductions" 1972)	
*On the Syllogism	*Gerard of Cremona (not found)	before 1187
*On Posterior Analytics	Cited by Albert the Great (not found)	
Introduction to the Book of Rhetoric (Ṣadr kitāb al-khiṭāba)	Hermann the German (*Didascalia in Rhetoricam Aristotelis ex glosa Alpharabii*) (ed. Grignaschi and Langhade, in *Deux ouvrages* 1971)	
*On Physics	*Gerard of Cremona (*Distinctio super librum Aristotilis de naturali auditu*)[12]	before 1187
Explanation of the Problems in the Postulates of the Fifth Book of Euclid	Dominicus Gundisalvi (?) (ed. Burnett, in "Euclid and al-Fārābī" 2004)	*ca.* 1160/90 (?)
*Pseudo-Fārābī, On the Rise of the Sciences	Anonymous (Dominicus Gundisalvi?)	twelfth century
Iᴋʜᴡᴀ̄ɴ ᴀʟ-Ṣᴀғᴀ̄ʾ		
Letter on Proof	Anonymous (*Liber introductorius in artem logicae demonstrationis*) (ed. Nagy, in *Phil. Abhandlungen* 1897)	
Letter on Geography	Anonymous (*Epistola fratrum sincerorum in cosmographia*) (ed. Gauthier-Dalché 1988)	

(*cont.*)

[11] A collection of comments on Aristotle's logic. See Jeanne Bignami-Odier, "Le manuscrit Vatican latin 2186," *Archives d'histoire doctrinale et littéraire du moyen âge* 11 (1938) 133–66.

[12] See a text ascribed to al-Fārābī in Lynn Thorndike and Pearl Kibre, *A Catalogue of Incipits of Mediaeval Scientific Writings in Latin* (London: Mediaeval Academy of America, 1963) col. 1253: "Liber de natura loci ex latitudine et longitudine: Quod naturam loci scire oportet in scientia naturali."

Author and Work	Translator	Date
Final Letter	Anonymous (*Liber de quatuor confectionibus*) (ed. Sannino 2000)	
ISAAC ISRAELI		
*On the Elements	Gerard of Cremona (ed. 1515)	before 1187
*On the Description and Definition of Things	a. Dominicus Gundisalvi (?) (ed. Muckle 1937–8)	*ca.* 1160/90
	b. Gerard of Cremona (ibid.)	before 1187
AVICENNA		
al-Shifā[13]		
prologue of Juzjānī	Avendauth (with the aid of an unknown Latinist) (ed. Birkenmajer, in "Avicennas Vorrede" 1970)	*ca.* 1160/80
I. Logic		
1. *Isagoge*		
Bk. 1, chs. 1 and 12	Avendauth (with the aid of an unknown Latinist)	*ca.* 1160/80
Bk. 1, chs. 2–11, 13–14, Bk. 2, chs. 1–4	Anonymous (Toledo?) (not Dominicus Gundisalvi)	twelfth century
5. *Posterior Analytics*, Bk. 2, ch. 7	Dominicus Gundisalvi, *De convenientia et differentia scientiarum* (within his *De divisione philosophiae* [ed. Baur 1903])	*ca.* 1160/90
8. *Rhetoric* (excerpts)	Within Hermann the German's translation of Aristotle's *Rhetoric*	1240/50
II. Natural Science		
1. *Physics*	(*Sufficientia*)	
Bks. 1–3 (beginning only)	Anonymous (Toledo?) (AvL)	twelfth century
Bk. 3, chs. 1–10 (continuation of previous translation)	Juan Gonzalves de Burgos and Salomon (AvL)	1275–80
2. *On the Heavens*	Juan Gonzalves de Burgos and Salomon (ed. Renaud 1973)	

[13] For further information, see Marie-Thérèse d'Alverny, "Notes sur les traductions médiévales des œuvres philosophiques d'Avicenne," *Archives d'histoire doctrinale et littéraire du moyen âge* 19 (1952) 337–58. Most recently, see Amos Bertolacci, "A Community of Translators: The Latin Medieval Versions of Avicenna's *Kitāb al-Shifā' (Book of the Cure),*" in C. Mews and J. Crossley (eds.) *Communities of Learning, Religious Diversity, and the Written Record 1085–1453* (forthcoming).

Author and Work	Translator	Date
3. *On Generation and Corruption*	Juan Gonzalves de Burgos and Salomon (AvL)	
4. *On Actions and Passions*	Juan Gonzalves de Burgos and Salomon (AvL)	
5. Bks. 1–2 (*Meteora*)	Juan Gonzalves de Burgos and Salomon	1275/80
Bk. 1, ch. 1 and 5 *On Stones and Metals*	Alfred of Shareshill (*De congelatione et conglutinatione lapidum*) (ed. Holmyard and Mandeville 1927)	*ca.* 1200
Bk. 2, ch. 6 (*On Floods*)	Alfred of Shareshill (?)	*ca.* 1200
6. *On the Soul*	Avendauth and Dominicus Gundisalvi (AvL)	*ca.* 1160/90
7. *On Plants*	*Liber eiusdem (Avicenne) de vegetabilibus*[14]	
8. *On Animals*	Michael Scot	
IV. *Metaphysics*	Dominicus Gundisalvi and an unknown collaborator (AvL)	*ca.* 1160/90
Letter on Medicines for the Heart	a. Avendauth and Dominicus Gundisalvi (chs. 2–7) (in Avicenna's *De anima* [AvL])	*ca.* 1160/90
	b. Arnold of Villanova	*ca.* 1300
Pseudo-Avicenna		
Book on the Heavens and the World	Dominicus Gundisalvi *Liber caeli et mundi* (ASL XIV)	*ca.* 1160/90
Abū Wafā' al-Mubashshir ibn Fātik		
Choicest Maxims and Best Sayings (1048–49)	a. Gerard of Cremona (the sayings of Ptolemy, in the preface to the *Almagest*) (ed. Burnett, "Ptolemaeus" 2009)	before 1187
	b. John of Procida (?) (*Liber philosophorum moralium antiquorum*) (ed. Franceschini 1931–2)	
al-Ghazālī		
Prologue to the Aims and the Destruction of the Philosophers	Anonymous (ed. Salmon, in "Algazel" 1936)	

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[14] Only as an item in the 1338 catalogue of the library of the Sorbonne.

Author and Work	Translator	Date
The Aims of the Philosophers	Magister Johannes and Dominicus Gundisalvi (*Summa theorice philosophie*) (on logic ed. Lohr 1965; on metaphysics and physics ed. Muckle 1933)	*ca.* 1160/90
The Destruction of the Philosophers	Included within Averroes, *The Destruction of the Destruction*, q.v.	1328
RAYMOND LULL		
*Arabic logical compendium, dependent on the logic of *The Aims*	Raymond Lull (*Compendium logicae Algazelis*) (ed. Lohr 1967)	1275–6 or 1288
IBN AL-HAYTHAM		
On the Configuration of the World	a. Anonymous (Oxford, Canon. misc. 45) (ed. Mancha 1990)	late thirteenth century
	b. Anonymous (Madrid, BN, 10059) (ed. Millás Vallicrosa, in *Traducciones orientales* 1942)	before early fourteenth century
Optics	Two unknown translators (ed. Smith 2001–8)	before late thirteenth century
SOLOMON IBN GABIROL		
**Fount of Life*	Johannes Hispanus and Dominicus Gundisalvi, *Fons vitae* (ed. Baeumker 1892–5)	*ca.* 1160/90
AL-BITRŪJĪ		
**On the Movements of the Heavens*	Michael Scot and Abuteus Levita	1217
AVERROES		
*Middle Comm. on *Isagoge*	William of Luna	1258/66
Middle Comm. on *Categories*	William of Luna (ed. Hissette forthcoming)	1258/66
Middle Comm. on *De interpretatione*	William of Luna (?) (ed. Hissette 1996)	1258/66
Middle Comm. on *Prior Analytics*	William of Luna (?) (ed. 1562, etc.)	1258/66
Middle Comm. on *Posterior Analytics*	William of Luna (?) (ed. 1562, etc.)	1258/66
Middle Comm. on *Rhetoric*	Excerpt in Hermann the German's translation of Aristotle's *Rhetoric*	1240/50

Author and Work	Translator	Date
Middle Comm. on *Poetics*	Hermann the German (AL XXXIII)	1256
*Long Comm. on *Physics*	a. Michael Scot (?) (ed. 1562, etc.)	*ca.* 1220/35
	b. Hermann the German (?) (only Bk. 7 [ed. Schmieja 2007] and Bk. 8, comm. 80–6)	
	c. Theodore of Antioch (Proemium) (ed. 1562, etc.)	
Long Comm. on *De caelo*	Michael Scot (ed. Carmody and Arnzen 2003)	*ca.* 1220/35
Middle Comm. on *De gen. et corr*	Michael Scot (?) (ed. 1562, etc.)	
Middle Comm. on *Meteora*	Anonymous (Bk. 4 only) (ed. 1562, etc.)	
Middle Comm. on nine books of *De animalibus*	Michael Scot (?)	
*Long Comm. on *De anima*	Michael Scot (?) (ed. Crawford 1953)	*ca.* 1220/35
Epitomes of *Parva naturalia*	Michael Scot (?) (ed. Shields 1949)	
Long Comm. on *Metaphysics*	Michael Scot (?) (ed. 1562, etc.)	*ca.* 1220/35
*Middle Comm. on *Nicomachean Ethics*	Hermann the German (?) (ed. 1562, etc.)	1240
On the Substance of the Orb	Michael Scot (?) (ed. 1562, etc.)	
On the Separation of the First Principle	Afonso Dinis of Lisbon and Magister Alfonsus Conversus (Abner of Burgos) (ed. Steel and Guldentops 1997)	mid-fourteenth century
On the Possibility of Conjunction with the Active Intellect, treatises 1 and 2	*De animae beatitudine* (possibly by same as previous) (ed. Geoffroy and Steel 2001)	
Al-Damīma	Ramón Martí (*Epistola ad amicum*) (ed. Alonso, in *Teología* 1947)	
Destruction of the Destruction	Calonymos ben Calonymos (incomplete)	1328

(*cont.*)

Author and Work	Translator	Date
Abū Muḥammad ʿAbdallāh Ibn Rushd (the son of Averroes)		
On the Possibility of Conjunction	Anonymous (*De intellectu*) (ed. Burnett and Zonta 2000)	early thirteenth century
Maimonides[15]		
Guide to the Perplexed	† John of Palermo (?) (*Dux neutrorum*)	*ca.* 1230 (?)
Liber de uno deo benedicto (= *Guide* Bk. 2, chs. 1–2)	Anonymous	thirteenth century
Liber de parabola (= *Guide* Bk. 3, chs. 29–30, 32–49)	Anonymous	early thirteenth century

5. LATIN PHILOSOPHICAL WORKS TRANSLATED INTO GREEK

john a. demetracopoulos

From the quantitative point of view, medieval Latin philosophical literature is some dozen times bulkier than the Byzantine tradition. This sheer quantity of work, along with the language barrier, made it difficult for Byzantine thinkers to catch up with the Latins. Thus the vast majority of ancient and medieval Latin philosophical writings remained always inaccessible to the Byzantines. Still, some exceptions do exist, including some major works, including many ones by Thomas Aquinas. These Latin pieces were made known little by little in Byzantium after the capture of its capital, Constantinople, in the course of the Fourth Crusade (1204), especially on the occasion of the numerous diplomatic contacts between the churches of Constantinople and Rome, as well as between the Byzantine emperors and the Holy See, in the later thirteenth and fourteenth centuries. In the fifteenth century, George Scholarios – Gennadios II stands as an exceptional case: he explicitly advocates the superiority of scholastic thought in general as well as of the scholastic interpretation of Aristotle over the interpretation by Neoplatonic and Byzantine commentators en bloc. Scholarios was particularly impressed by Aquinas, whose works he consulted in regard to almost every topic.

The present list, in addition to those works that can be properly classified as philosophical, contains some principally theological writings too, in cases where they touch upon some philosophical matters. This list should not be taken as definitive. Several of

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[15] For the medieval Latin translations of Maimonides, see Wolfgang Kluxen, "Literargeschichtliches zum lateinischen Moses Maimonides," *Recherches de théologie ancienne et médiévale* 21 (1954) 23–50.

the translations remain unedited;[16] and, since their manuscript tradition has not been as yet adequately explored, surprises will no doubt meet us in the future. Further, even in the cases where an edition is available, little research into the Latin provenance of these translations has yet been carried out. Finally, there are some texts (both edited and unedited) that, although passing for original Byzantine treatises, are in fact just translations (full, abridged, or enriched) from Latin.

Author and Work	Translator	Date
ALFRED OF SHARESHILL	Manuel Holobolos (ed. Drossaart	before 1314
Translation of the pseudo-Aristotelian *De plantis* (Nicholas of Damascus)	Lulofs and Poortman 1989)	
ANONYMOUS		
De sex principiis[17]	George Scholarios – Gennadios II (Œuvres VII: 283–337)	1435/6
Paraphrase of *Physics* Bks. I–V	George Scholarios – Gennadios II (Œuvres VIII: 1–133)	*ca.* 1431
Prolegomena to the *Physics*	George Scholarios – Gennadios II (Œuvres VIII: 134–57)	*ca.* 1431
ANSELM OF CANTERBURY		
Cur Deus homo	Manuel Kalekas	before 1397/8
De processione Spiritus sancti	Demetrios Kydones	after 1358 (?)
AUGUSTINE		
De beata vita I.4–II.9	Prochoros Kydones	before 1370/1
De libero arbitrio I (to 13.27.90)	Prochoros Kydones (ed. Hunger 1990)	before 1370/1
De Trinitate	Maximos Planudes (ed. Papathomopoulos *et al.* 1995)	before 1281
De vera religione I.1–VIII.15	Prochoros Kydones	before 1370/1
BERNARD GUI		
Vita S. Thomae de Aquino ch. 53 ("De numero et nominibus librorum et tractatuum") and ch. 54 ("De opusculis")	Demetrios Kydones (ed. Demetracopoulos, in "Demetrius Cydones" 2010)	1364/5

(*cont.*)

[16] A recently inaugurated research project, "Thomas de Aquino Byzantinus" (National Hellenic Research Foundation, Athens; editor: John A. Demetracopoulos) is intended to offer an edition of the Byzantine translations of Aquinas's texts listed here.

[17] The translator remarks that this work "is not by Aristotle, as somebody says, but possibly by Boethius and more probably by Gilbert of Poitiers" (Œuvres VII: 214).

Author and Work	Translator	Date
BOETHIUS		
Consolatio philosophiae	Maximos Planudes (ed. Papathomopoulos 1999)	*ca.* 1295
De hypotheticis syllogismis	Maximos Planudes (ed. Nikitas 1982)	before 1268
De topicis differentiis	a. Manuel Holobolos (ed. Nikitas 1990)	*ca.* 1267
	b. Prochoros Kydones (ed. Nikitas 1990)	1360/7
De Trinitate	Manuel Kalekas (ed. Demetracopoulos 2005)	1396/9
PSEUDO-BOETHIUS		
A Division of the Dialectical Topoi[18]	George Pachymeres (?) (ed. Nikitas 1990)	before 1283
CICERO		
De senectute	Theodore Gazes (ed. Salanitro 1987)	1451/55
Somnium Scipionis (= *De re publica VI*)	Maximos Planudes (ed. Pavano 1992)	
Macrobius's commentary on *Somnium Scipionis*	Maximos Planudes (ed. Megas 1995)	before 1305
De amicitia (?)[19]	Theodore Gazes	before 1475
De officiis (?)	Theodore Gazes	before 1475
PSEUDO-CICERO		
Rhetorica ad Herennium, Bk. III, 16.28–24.40	Maximos Planudes or Bessarion (ed. Bernardinello 1973)[20]	late thirteenth century/ mid– fifteenth century
HERVAEUS NATALIS		
Sentences Bk. I, dist. I qq. 1–4 and 7	Prochoros Kydones	before 1370/1

[18] On the Latin provenance of this text see Sten Ebbesen, "George Pachymeres and the *Topics*," *Cahiers de l'Institut du Moyen Age Grec et Latin* 66 (1996) 169–85. For the attribution of the translation to George Pachymeres, see Börje Bydén, "'Strangle Them with these Meshes of Syllogisms!': Latin Philosophy in Greek Translations of the Thirteenth Century," in J. O. Rosenqvist (ed.) *Interaction and Isolation in Late Byzantine Culture* (Stockholm: Swedish Research Institute in Istanbul, 2004) 153–6.

[19] There is some meager evidence that Gazes translated this and the following work.

[20] According to Bernardinello, it is slightly more probable that this text was translated by Bessarion than by Theodore Gazes and much more probable that it was translated by either of these scholars than by Maximos Planudes. More recent scholars, however, have unanimously rejected the ascription to Bessarion.

Author and Work	Translator	Date
PETER OF SPAIN		
Summulae logicales, tract. I–VI	George Scholarios – Gennadios II (*Œuvres* VIII: 338–50)	1435/6
PLINY THE ELDER		
Naturalis historia II.4.12–13	Theodore Gazes	1440s
RADULPHUS BRITO		
Quaestiones super artem veterem Prooemium	George Scholarios – Gennadios II[21] (*Œuvres* VIII: 11–18)	*ca.* 1433/5
Isagoge (Intro., qq. 1–5, 10–16, 19–32)	(*Œuvres* VII: 20–9; 32–6; 48–104)	
Categories (qq. 8–9; 12–17; 19; 21–30)	(*Œuvres* VII: 132–9, 157–9; 163–71; 180–2; 188–90, 191–4; 205–7)	
De Interpretatione (qq. 16, 24)	(*Œuvres* VII: 297–300; 347–8)	
Sophistici elenchi (prooemium)	(*Œuvres* VII: 8–11)	
THOMAS AQUINAS		
De ente et essentia	George Scholarios – Gennadios II (*Œuvres* VI: 154–77)	1445/50
Armandus de Bellovisu, comm. on *De ente et essentia*	George Scholarios – Gennadios II (*Œuvres* VI: 177–326)	1445/50
Summa contra gentiles	Demetrios Kydones	1354
Compendium of the *Summa contra gentiles*	by George Scholarios – Gennadios II	1464
Summa theologiae		
1a, 1a2ae, 2a2ae	Demetrios Kydones (2a2ae: ed. Leontsinis *et al.* 1976–2002)	*ca.* 1355–8?
3a qq. 45, 49, 54–5	Prochoros Kydones	1358/70 (?)
Supplementum (76 qq.)	Prochoros Kydones	1358/70 (?)
Compendium of 1a	by George Scholarios – Gennadios II (*Œuvres* V: 338–510)	1464
Compendium of 1a2ae	by George Scholarios – Gennadios II (*Œuvres* VI: 1–153)	after 1464
Compendium of 1a2ae (qq. 1–7)	by Bessarion	mid-fifteenth century
Florilegium Thomisticum I (Summa contra gent. and 1a)	by George Scholarios – Gennadios II (ed. Demetracopoulos 2002)	1444/53
Florilegium Thomisticum II (Summa contra gent. III)	by George Scholarios – Gennadios II (ed. Demetracopoulos 2007)	1444/53

[21] See Sten Ebbesen and Jan Pinborg. "Gennadios and Western Scholasticism: Radulphus Brito's *Ars Vetus* in Greek Translation," *Classica et Mediaevalia* 33 (1981–2) 263–319.

Author and Work	Translator	Date
Extracta Thomistica (*Summa contra gent.* II–III, 1a, 2a2ae)	by George Gemistos Plethon (ed. Demetracopoulos, in *Apo tēn historia* (2004)	1414/33 (?)
De aeternitate mundi	Prochoros Kydones	before 1370/1
De potentia	Prochoros Kydones (?)	before 1370/1
De spiritualibus creaturis	Prochoros Kydones (?)	before 1370/1
De interpretatione commentary (nearly complete)	George Scholarios – Gennadios II (*Œuvres* VIII: 242–308)	1433/5
Post. Analytics commentary (I.1 nn. 1–6)[22]	George Scholarios – Gennadios II (*Œuvres* VII: 18–20)	1433/5
De anima commentary	George Scholarios – Gennadios II (*Œuvres* VI: 327–581)	*ca.* 1435
Physics commentary (I.1 nn. 3–15; II.1–12)	George Scholarios – Gennadios II (*Œuvres* VIII: 163–254)	before 1438
Metaphysics comm. (prologue)	Prochoros Kydones	before 1370/1
Quodlibet I.1	George Scholarios – Gennadios II (?) (ed. Cacouros, in "Georges Scholarios" 2000)	first half of fifteenth century (?)
Pseudo-Thomas Aquinas		
De fallaciis	George Scholarios – Gennadios II (*Œuvres* VIII: 255–82)	*ca.* 1435/6

6. ANCIENT PHILOSOPHICAL WORKS AND COMMENTARIES TRANSLATED INTO HEBREW

mauro zonta

The following table lists philosophical texts originally written either in Greek or in Latin in antiquity (up to the mid-sixth century) that were translated into Hebrew during the Middle Ages, mostly in the period 1200–1500. None of them was directly translated from Greek, but instead either from a medieval Arabic version (see Appendix B3) or from a Latin version directly based upon the Greek original or upon an Arabic version of the Greek (see Appendices B1 and B2). Many of these texts are not translations of the original, but of medieval commentaries that contain literal passages or paraphrases or summaries, or questions on some points, where the contents of the original works were sometimes altered. Often, however, these commentaries are the only way by which medieval Hebrew scholars read and knew these texts. Each reference mentions either the critical edition of the text or the first edition, if any. (Editions not yet published, including those edited as part of a Ph.D. thesis, are not mentioned.)

A = translation from an Arabic version
AL = translation from an Arabic-into-Latin version

[22] See Ebbesen and Pinborg, "Gennadios and Western Scholasticism," p. 267. Scholarios himself attests to having made a translation of the entire commentary (*Œuvres* VII: 4–5), but it is lost.

L   = translation from a Latin version
LC = translation from a Latin-into-Catalan version

Author and Work (with commentators)	Translator	Date
ALEXANDER OF APHRODISIAS		
De anima (Bk. I)	Samuel of Marseilles (A)	1323–40
De intellectu		
Averroes	Anonymous (A) (ed. Davidson 1988)	before 1340
ARISTOTLE		
Categories		
al-Fārābī (summary)	Three anonymous translators (A)	thirteenth century
al-Fārābī (long commentary)	Anonymous (Samuel of Marseilles?) (A) (ed. Zonta 2006)	fourteenth century (?)
Averroes (summary)	Jacob ben Makhir (A) (ed. Marcaria 1559)	1289
	revised by Samuel of Marseilles (A)	1329
Averroes (middle commentary)	Jacob Anatoli (A) (ed. Davidson 1969)	1232
	revised by Samuel of Marseilles (A)	1330 (?)
pseudo-Marsilius of Inghen (questions)	Abraham Shalom (L)	before 1492
De interpretatione		
al-Fārābī (summary)	Two anonymous translators (A)	thirteenth century
al-Fārābī (long commentary)	Anonymous (A)	before 1320 (?)
Averroes (summary)	Jacob ben Makhir (A) (ed. Marcaria 1559)	1289
	revised by Samuel of Marseilles (A)	1329
Averroes (middle commentary)	Jacob Anatoli (A)	1232
pseudo-Marsilius of Inghen (questions)	Abraham Shalom (L)	before 1492
Prior Analytics		
al-Fārābī (summary)	Two anonymous translators (A)	thirteenth century
al-Fārābī (*Short Book of Syllogism*)	Moses ibn Tibbon (A)	1255
Averroes (summary)	Jacob ben Makhir (A) (ed. Marcaria 1559)	1289
	revised by Samuel of Marseilles (A)	1329
Averroes (middle commentary)	Jacob Anatoli (A)	1232

(cont.)

Author and Work (with commentators)	Translator	Date
Posterior Analytics		
al-Fārābī (summary)	Judah ibn Tibbon (?) (A)	second half of twelfth century
Averroes (summary)	Jacob ben Makhir (A) (ed. Marcaria 1559)	1289
	revised by Samuel of Marseilles (A)	1329
Averroes (middle commentary)	Jacob Anatoli (A)	1232
Averroes (long commentary)	Calonymos ben Calonymos (A)	1314
Topics		
al-Fārābī (summary)	Moses ibn Lajis (?) (A)	thirteenth century (?)
Averroes (summary)	Jacob ben Makhir (A) (ed. Marcaria 1559)	1289
	revised by Samuel of Marseilles (A)	1329
Averroes (middle commentary)	Calonymos ben Calonymos (A)	1313
Sophistical Refutations		
al-Fārābī (summary)	Anonymous (A)	second half of twelfth century (?)
Averroes (summary)	Jacob ben Makhir (A) (ed. Marcaria 1559)	1289
	revised by Samuel of Marseilles (A)	1329
Averroes (middle commentary)	Calonymos ben Calonymos (A)	1313
Rhetoric		
al-Fārābī (summary)	Todros ben Todrosi (A)	1330–40
Averroes (summary)	Jacob ben Makhir (A) (ed. Marcaria 1559)	1289
	revised by Samuel of Marseilles (A)	1329
Averroes (middle commentary)	Todros ben Todrosi (A) (ed. Goldenthal 1842)	1337
Poetics		
al-Fārābī (summary)	Todros ben Todrosi (A)	1330–40
Averroes (summary)	Jacob ben Makhir (A) (ed. Marcaria 1559)	1289
	revised by Samuel of Marseilles (A)	1329

Author and Work (with commentators)	Translator	Date
Averroes (middle commentary)	Todros ben Todrosi (A) (ed. Lasinio 1872)	1337
Physics	Judah Messer Leon (Bks. I–IV) (L)	1473–5
Averroes (summary)	Moses ibn Tibbon (A) (ed. Marcaria 1559)	*ca.* 1250
Averroes (middle commentary)	a. Zerahyah ben Isaac Hen (A)	1284
	b. Calonymos ben Calonymos (A)	1316
Averroes (long commentary)	Calonymos ben Calonymos (A)	1315 (?)
pseudo-Robert Grosseteste (summary)	Anonymous (L)	*ca.* 1450 (?)
Albert of Orlamünde (summary)	a. Anonymous (L)	before 1400
	b. Abraham Shalom (L)	before 1492
John Letourneur (questions)	Eli Habillo (L)	1472
Thomas Bricot (summary)	David ibn Shoshan (L)	end of fifteenth century
De caelo et mundo		
Themistius (paraphrase)	Zerahyah ben Isaac Hen (A) (ed. Landauer 1902)	1284
Pseudo–Avicenna (questions) (Hunayn ibn Ishaq?)	Solomon of Melguiri (AL)	1290–1300 (?)
Averroes (summary)	Moses ibn Tibbon (A)	*ca.* 1250
Averroes (middle commentary)	Solomon ibn Ayyub (A)	1259
Pseudo-Robert Grosseteste (summary)	Anonymous (L)	*ca.* 1450 (?)
Albert of Orlamünde (summary)	a. Anonymous (L)	before 1400
	b. Abraham Shalom (L)	before 1492
John Letourneur (questions)	Eli Habillo (L)	1473
Thomas Bricot (summary)	David ibn Shoshan (L)	end of fifteenth century
De generatione et corruptione	Zerahyah ben Isaac Hen (A) (ed. Tessier 1984)	1284
Averroes (summary)	Moses ibn Tibbon (A) (ed. Kurland 1958)	1250

(cont.)

Author and Work (with commentators)	Translator	Date
Averroes (middle commentary)	Calonymos ben Calonymos (A) (ed. Kurland 1958)	1316
Albert of Orlamünde (summary)	a. Anonymous (L)	before 1400
	b. Abraham Shalom (L)	before 1492
John Letourneur (questions)	Eli Habillo (L)	1472
Thomas Bricot (summary)	David ibn Shoshan (L)	end of fifteenth century
Meteorology	Samuel ibn Tibbon (A) (ed. Fontaine 1995)	1210
Averroes (summary)	Moses ibn Tibbon (A)	*ca.* 1250
Averroes (middle commentary)	Calonymos ben Calonymos (A)	1316
Albert of Orlamünde (summary)	Abraham Shalom (L)	before 1492
Thomas Bricot (summary)	David ibn Shoshan (L)	end of fifteenth century
Historia animalium	Anonymous (Samuel ha-Levi?) (AL)	before 1300
De partibus animalium	Anonymous (Samuel ha-Levi?) (AL)	before 1300
Averroes (middle commentary)	Jacob ben Makhir (A)	1302
De generatione animalium	Anonymous (Samuel ha-Levi?) (AL)	before 1300
Averroes (middle commentary)	Jacob ben Makhir (A)	1302
De anima	Zerahyah ben Isaac Hen (A) (ed. Bos 1994)	1284
Averroes (summary)	Moses ibn Tibbon (A)	1244
Averroes (middle commentary)	a. Shem Tov ben Isaac (A)	*ca.* 1260 (?)
	b. Moses ibn Tibbon (A) (ed. Ivry 2003)	1261
Averroes (long commentary)	Baruch ibn Ya'ish (?) (AL)	before 1470
pseudo-Robert Grosseteste (summary)	Anonymous (L)	*ca.* 1450 (?)
Albert of Orlamünde (summary)	Abraham Shalom (L)	before 1492
Thomas Aquinas	Anonymous (L)	before 1448

Author and Work (with commentators)	Translator	Date
Giles of Rome	Judah Romano (L)	*ca.* 1320–30
John of Jandun (questions)	Baruch ibn Yaʿish (?) (L)	before 1475
John Letourneur (questions)	Eli Habillo (L)	1472
Thomas Bricot (summary)	David ibn Shoshan (L)	end of fifteenth century
Parva naturalia		
Averroes (summary)	Moses ibn Tibbon (A) (ed. Blumberg 1954)	1254
John Letourneur (questions)	Eli Habillo (L)	1473
Thomas Bricot (summary)	David ibn Shoshan (L)	end of fifteenth century
Metaphysics	Baruch ibn Yaʿish (L)	*ca.* 1485
Themistius (Bk. XII) (paraphrase)	Moses ibn Tibbon (A) (ed. Landauer 1903)	1255
al-Fārābī (summary)	Anonymous (A)	fourteenth century (?)
Averroes (summary)	Moses ibn Tibbon (A)	1258
Averroes (middle commentary)	a. Zerahyah ben Isaac Hen (A)	1284
	b. Calonymos ben Calonymos (A)	1317
Averroes (long commentary)	a. Calonymos ben Calonymos (?) (A)	1315 (?)
	b. Moses ben Solomon of Beaucaire (A)	1320–5 (?)
Thomas Aquinas	Abraham ibn Nahmias (L)	1490
Antonius Andreas (questions)	Eli Habillo (L)	after 1473 (?)
Nicomachean Ethics	a. Meir Alguadez (L) (ed. Satanow 1790)	*ca.* 1400
	b. Baruch ibn Yaʿish (L)	*ca.* 1480
Averroes (middle commentary)	Samuel of Marseilles (A) (ed. Berman 1999)	1321
John Letourneur (questions)	Eli Habillo (L)	after 1473 (?)
Pseudo-Aristotle		
De causis (Proclus)	a. Hillel of Verona (AL) (ed. Halberstam 1874)	*ca.* 1260 (?)
	b. Zerahyah ben Isaac Hen (A) (ed. Schreiber 1916)	1284
	c. Judah Romano (AL)	*ca.* 1313
	d. Eli Habillo (AL)	1471 or 1477

(cont.)

Author and Work (with commentators)	Translator	Date
De mineralibus	a. Anonymous (A)	before *ca.* 1300
	b. Anonymous (L)	fifteenth century (?)
De pomo	Abraham ibn Hasdai (A) (ed. Marcaria 1562, etc.)	*ca.* 1210–30
Economics (Bks. I and III)	a. Anonymous (L)	*ca.* 1440 (?)
	b. Baruch ibn Ya'ish (?) (L)	*ca.* 1480 (?)
Moral Epistle	Judah al-Harizi (A) (ed. Marcaria 1559, etc.)	*ca.* 1200
Problemata physica (pt. I)	Moses ibn Tibbon (A) (ed. Filius 1999)	1264
Secretum secretorum (short version)	Anonymous (A) (ed. Gaster 1907–8)	*ca.* 1300
Boethius		
De consolatione	a. Samuel Benveniste (LC)	1412
philosophiae	b. Bonafous Bonfil Astruc (L) (ed. Sierra 1967)	1423
Bryson		
Economics	David ibn Ya'ish (A) (ed. Plessner 1928)	*ca.* 1375
Nicholas of Damascus		
De plantis	Calonymos ben Calonymos (A) (ed. Drossaart Lulofs and Poortman 1989)	1314
Plato		
Republic		
Averroes (summary)	Samuel of Marseilles (A) (ed. Rosenthal 1966)	1320–1
Porphyry		
Isagoge		
al-Fārābī (summary)	Four anonymous translations	thirteenth–fourteenth centuries
Averroes (summary)	Jacob ben Makhir (A) (ed. Marcaria 1559)	1289
	revised by Samuel of Marseilles (A)	1329
Averroes (middle commentary)	Jacob Anatoli (A) (ed. Davidson 1969)	1232
Pseudo-Marsilius of Inghen (questions)	Abraham Shalom (L)	before 1492

Appendix C

BIOGRAPHIES OF MEDIEVAL AUTHORS

An effort has been made to provide an entry for every medieval author who has been the subject of significant philosophical research in modern times, from the eighth to the early fifteenth century. Inevitably, such an effort will be imperfect: some notable authors have doubtless been omitted, and moreover there is considerable vagueness in the boundaries of such a census. Many figures included here are not philosophers even in a very broad sense of the term. Although the entire appendix is the responsibility of one hand, a great deal of advice has been received from many contributors to the volume and also, especially, from Russell Friedman, Martin Pickavé, and Chris Schabel.

Authors are organized by first name, unless, as with most Arabic authors, that name is not commonly used. In the lists of secondary sources, items of special bio-bibliographical importance are placed first. The following works are abbreviated:[1]

BBK	*Biographisch-Bibliographisches Kirchenlexikon* (Bautz)
BCPMA	[*Blackwell*] *Companion to Philosophy in the Middle Ages* (Gracia and Noone)
BEIP	*Biographical Encyclopaedia of Islamic Philosophy* (Leaman)
CALMA	*Compendium Auctorum Latinorum Medii Aevi* (Lapidge, Leonardi, and Garfagnini)
CHLMP	*Cambridge History of Later Medieval Philosophy* (Kretzmann, Kenny, and Pinborg)
CTMPT	*Cambridge Translations of Medieval Philosophical Texts* (vol. I, Kretzmann and Stump; vol. II, McGrade, Kilcullen, and Kempshall; vol. III, Pasnau)
DBI	*Dizionario biografico degli Italiani* (Ghisalberti)
DMA	*Dictionnaire du Moyen Âge* (Gauvard, de Libera, and Zink)
Dronke	*A History of Twelfth-Century Western Philosophy*
DS	*Dictionnaire de spiritualité* (Viller)
DSB	*Dictionary of Scientific Biography* (Gillispie)
DTC	*Dictionnaire de théologie catholique* (Loth and Michel)
EI	*Encyclopaedia of Islam*, 2nd edn (Gibb)

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[1] Three further resources worthy of special notice are Hans Daiber, *Bibliography of Islamic Philosophy* (Leiden: Brill, 1999; suppl. 2007); Rolf Schönberger and Brigitte Kible, *Repertorium edierter Texte des Mittelalters* (Berlin: Akademie Verlag, 1994); and Steven Nadler and T. M. Rudavsky, *The Cambridge History of Jewish Philosophy* (Cambridge: Cambridge University Press, 2009). At present, general reference works freely available on the web, most notably Wikipedia, are extremely unreliable for medieval philosophy.

Emden	*A Biographical Register of the University of Oxford to A.D. 1500*
FA	*Franciscan Authors, 13th–18th Century* (Van Der Heijden and Roest)
Glorieux	*Répertoire des maîtres en théologie de Paris au XIIIᵉ siècle*
HIP	*History of Islamic Philosophy* (Nasr and Leaman)
HJP	*History of Jewish Philosophy* (Frank and Leaman)
Kaeppeli	*Scriptores Ordinis Praedicatorum Medii Aevi*
Lohr	"Medieval Latin Aristotle Commentaries," supplemented by *Latin Aristotle Commentaries*
ODB	*Oxford Dictionary of Byzantium* (Kazhdan *et al.*)
ODNB	*Oxford Dictionary of National Biography*, rev. edn (Matthew and Harrison)
Pennington	*Medieval Canonists: A Bio-Bibliographical Listing*
PG	*Patrologiae cursus completus: series graeca* (Migne)
PL	*Patrologiae cursus completus: series latina* (Migne)
REP	*Routledge Encyclopedia of Philosophy* (Craig)
Roensch	*Early Thomistic School*
SEP	*Stanford Encyclopedia of Philosophy* (Zalta)
Sirat	*A History of Jewish Philosophy in the Middle Ages*
Weijers	*Le travail intellectuel à la Faculté des arts de Paris*

ABBO OF FLEURY b. Orléanais, 945/50; d. Gascony, 1004. Influential teacher and monastic leader, notable for his scientific and mathematical interests. Early eduation at the Benedictine monastery at Fleury. Studied at Paris, Rheims, and Orléans, returning to Fleury to teach. Traveled to England, teaching at Ramsey Abbey from 985 to 987, before becoming abbot at Fleury from 988 until his death. Killed in a quarrel between feuding monks. Among his works pertaining to philosophy are *Questiones grammaticales* [*ca.* 988] (ed. and [Fr] tr. Guerreau-Jalabert 1982); a *De ratione spere* [978] (ed. Thomson, in "Two Astronomical Tractates" 1985); a commentary on the *Calculus* of Victorius of Aquitaine (ed. Peden, in *Abbo of Fleury* 2003); a *Computus* for calculating Easter; an early logical treatise, the *Syllogismorum categoricorum et hypotheticorum enodatio* (ed. van de Vyver and Raes 1966); and a treatise *De syllogismis hypotheticis* (ed. Schupp 1997). The bulk of his works are collected in PL 139. A contemporary *vita* by Aimoin of Fleury is also extant (ed. and [Fr] tr. Bautier *et al.* 2004).

Secondary sources. Cousin, *Abbon de Fleury* (1954); Germann, *De temporum ratione* (2006); Mostert, *Political Theology* (1987); Obrist (ed.) *Abbon de Fleury* (2004); Riché, *Abbon de Fleury* (2004); CALMA; DMA (Morelle and Lemoine); ODNB (Pfaff).

ʿABD AL-JABBĀR b. Asadabad (western Iran) *ca.* 935; d. 1025. Muʿtazilite theologian. Studied in Basra and elsewhere; subsequently lived in Baghdad, then in Rayy, where he was appointed chief judge. Principal work is a vast theological summa, *Al-Mughnī fī abwāb al-tawḥīd wa-al-ʿadl* (*Summa on Matters of Unity and Justice*) [970–80] (ed. 1960–).

Secondary sources. Reynolds, "Rise and Fall" (2005); Frank, "Autonomy of the Human Agent" (1982); Heemskerk, *Suffering* (2000); Hourani, *Islamic Rationalism* (1971); Peters, *God's Created Speech* (1976); Vasalou, "Equal Before the Law" (2003); EI (Stern).

AL–ABHARĪ (Athīr al-Dīn) b. Mosul, *ca.* 1200; d. 1264 (?). Author of several brief, influential philosophical textbooks. Student of Fakhr al-Dīn al-Rāzī. Best known for the *Hidāyat al-ḥikma* (*Guide to Philosophy*) (ed. Mumtāz al-Dīn 1960/5), which ranges over logic, physics, and theology. Also influential is *Al-Isāghūjī fī al-manṭiq* (*Introduction to Logic*), an adaptation of Porphyry (tr. Calverly 1933). Both were the subject of many later commentaries.

   Secondary sources. BEIP (Thomas); EI (Brockelmann).

ABNER OF BURGOS (Alfonso of Valladolid) b. *ca.* 1270; d. *ca.* 1348. Jewish convert to Christianity, best known for his rejection of free will. Studied medicine, philosophy, and astronomy. Converted to Christianity *ca.* 1320. Subsequently wrote a series of polemical treatises against Judaism, including the dialogue *Mostrador de justicia*, surviving only in Castillian (ed. Mettmann 1994–6); the *Minḥat Kena'ot* (*Offering of Jealousy*) (ed. [Castillian] Mettmann 1990), a response to criticisms from Isaac Pulgar; and the *Tesuvot la-Meharef* (*Response to the Blasphemer*) (ed. [Castillian] Mettmann 1998).

   Secondary sources. Baer, "Abner of Burgos" (1940); Sirat.

ABRAHAM ABULAFIA b. Saragossa (Spain), *ca.* 1240; d. Comino [Malta], *ca.* 1291. Mystical theologian. Founding figure of prophetic Kabbalah, an attempt to access the ancient, hidden truths of the Torah. Excerpts from various works are available in translation (tr. Meltzer *et al.* 1976).

   Secondary sources. Idel, *Mystical Experience* (1988); Tirosh-Samuelson, "Philosophy and Kaballah" (2003); Wolfson, *Abraham Abulafia* (2000).

ABRAHAM BAR ḤIYYA (bar Hayya) b. *ca.* 1065; d. Barcelona, *ca.* 1140. Scientist, philoso-pher. Born into a prominent Jewish family; held a position at the court of Alfonso I of Aragon. A pioneer in writing philosophical and scientific texts in Hebrew. Philosophical works include the *Hegyon ha-Nefesh ha-Azuvah* (*Meditation of the Sad Soul*) (ed. Wigoder 1971; tr. Wigoder 1969) and the *Megillat ha-Megalleh* (*Scroll of the Revealer*) (ed. Poznanski 1924), a treatise on the arrival of the Messiah. Important scientific works include the first Hebrew scientific encyclopedia, the *Yesode ha-Tevuna u-Migdal ha-'Emuna* (*Foundations of Understanding and Tower of Faith*) (ed. and [Sp] tr. Millás Vallicrosa 1952); the *Heshbon Mahalkhot ha-Kokhavim* (*Book of Calculation and the Movement of the Stars*) (ed. and [Sp] tr. Millás Vallicrosa 1959); *Sefer ha-'Ibur* (*Book of Intercalation*) (ed. Filipowski 1851), on the Jewish calendar; and the *Sefer Ṣurat ha-'Ares* (*Sphaera mundi*) (ed. Hebrew and Latin 1546). Perhaps the Abraham who collaborated with Plato of Tivoli on various Latin scientific translations.

   Secondary sources. Sela, *Rise of Medieval Hebrew Science* (2003); DSB (Levey); REP (Wigoder); Sirat.

ABRAHAM IBN DAUD (ben David; Rabad) b. southern Spain, *ca.* 1110; d. Toledo, *ca.* 1180. Philosopher and historian, author of the first systematic attempt to integrate Aristotelianism into Jewish thought. Studied with his uncle in Cordoba, moving to Toledo *ca.* 1147. Principal philosophical work is the *Ha-Emunah ha-Ramah* (*The Exalted Faith*) [*ca.* 1160] (ed. and tr. Samuelson and Weiss 1986), originally in Arabic but extant

only in Hebrew translation. Also well known is the Hebrew *Sefer ha-Qabbalah* (*The Book of Tradition*) [*ca.* 1160] (ed. and tr. Cohen 1967), a survey of the history of Judaism. Perhaps to be identified with the Arabic–Latin translator known as Avendauth, who collaborated with Dominicus Gundisalvi in Toledo.

Secondary sources. Eran, "Substance and Accident" (1997); Fontaine, *In Defense of Judaism* (1990), "Polemics" (2005); Samuelson, "Causation and Choice" (1979); REP (Samuelson); SEP (Fontaine).

ABRAHAM IBN EZRA (ben Meïr; Abraham Avenezra) b. Tudela (southern Spain), *ca.* 1093; d. 1167. Poet, astrologer, scientist, mystic, and Neoplatonic philosopher. Lived in Tudela until *ca.* 1140, when the Almohad conquests prompted him to wander through Europe, spending time in Italy, southern France, and England. Nearly all of the large body of his extant works dates from this later period (1140–60). His writings are mainly brief treatises in Hebrew (with a few written directly into Latin with the assistance of a Christian scholar) on a wide variety of topics ranging over the arts, sciences, and theology (ed. 1970 in 4 vols.; ed. Levin 1985). Among the more philosophical of his works are the visionary allegory *Hayy ben Meqitz* (*Texture of the Divine*) [prob. before 1140] (tr. Hughes, in *Texture of the Divine* 2004) and the *Yesod Mora* (*The Foundation of Reverence*) [1158] (ed. Cohen and Simon 2002), on the commandments of the Jewish religion. Important astrological treatises include the *Reshit Ḥokhmah* (*The Beginning of Wisdom*) [1148] (ed. and tr. Levy and Cantera 1939), the *Sefer ha-Yesodot* (*Book of Foundations*) (tr. [Fr] Halbronn 1977), and the *Sefer ha-Te'amim* (*Book of Reasons*) [1148; rev. 1154] (ed. and tr. Sela 2007). Also extant are important commentaries on the Hebrew Bible: available translations include Isaiah [1145] (ed. and tr. Friedländer 1873/1960), Hosea (ed. and tr. Lipshitz 1988), and the Pentateuch (tr. Strickman *et al.* 1988–2004). His poetry is also available in various anthologies (ed. 1975; tr. Weinberger 1997).

Secondary sources. Sela and Freudenthal, "Scholarly Writings" (2006) (bibliography); Díaz Esteban (ed.), *Abraham Ibn Ezra* (1990); Friedländer, *Essays* (1877/1963); Goldstein, "Astronomy and Astrology" (1996); Greive, *Studien* (1973); Levy, *Astrological Works* (1927); Sela, *Rise of Medieval Hebrew Science* (2003); Tomson (ed.), *Abraham Ibn Ezra* (2000); Twersky and Harris (eds.), *Rabbi Abraham ibn Ezra* (1993); REP (Jospe); SEP (Langermann); Sirat.

ABRAHAM MAIMONIDES (ben Moses, Maimuni, he-Hasid [the Pious]) b. Fustat (Egypt), 1186; d. 1237. Theologian, physician, rabbinical authority. The only son of Moses Maimonides, he continued his father's work as a scholar and community leader. Principal work is the *Kifāyat al-ʿābidīn* (*Complete Guide for Devotees*) [*ca.* 1230] (part. ed. Dana 1989; [Hebrew and English] tr. Wincelberg 2008), a monumental compendium of jurisprudence and religious philosophy that departs from his father's views in stressing ethical perfection as the ultimate human goal. Among various other extant works is the *Milhamot ha-Shem* (*Wars of the Lord*) [after 1235] (ed. Margaliot 1953); the *Ma'aseh nisim* (*Act of Miracles*) (ed. and [Hebrew] tr. Goldberg 1867), both defenses of his father's work; and a brief treatise in defense of his ethical pietism (tr. Goitein 1965).

Secondary sources. Eppenstein, *Abraham Maimuni* (1914) [life and works]; Cohen, "Soteriology" (1967–8); Goitein, "Pietist Circle" (1967); REP (Fenton).

ABŪ BISHR MATTĀ (ibn Yūnus al-Qunnāʾī) d. Baghdad, 940. Logician, translator, founding figure of the Baghdad Peripatetics. A Nestorian Christian, of Syriac origins. Worked in Baghdad, where he was the teacher of al-Fārābī and Yaḥyā ibn ʿAdī. Famously argued for the universal validity of logic in a debate with the grammarian Abū Saʿīd al-Sīrāfī [932] (ed. and tr. Margoliouth, in "Discussion" 1905). Responsible for a great many translations from the Syriac of both Aristotle and his commentators, as well as commentaries on the logical works and on the *Physics* (part. tr. McGinnis and Reisman, in *Classical Arabic Philosophy* 2007).

Secondary sources. Endress, "Grammatik und Logik" (1986); Mahdi, "Language and Logic" (1970); Rescher, *Development* (1964); EI (Endress).

ABŪ ḤANĪFA (al-Nuʿmān ibn Thābit; Imām al-Aʿẓam) b. *ca.* 699; d. Baghdad 767. Theologian and legal scholar, founder of prominent schools of thought in both law and theology. Lived in Kufa, where he studied religious law and became an authority and teacher, though without becoming a judge (*qāḍī*). Died in prison. Although he did not compose any writings on religious law, his efforts at a theoretically systematic account have survived in the work of his disciples, to whom he dictated his ideas. His theological thought is represented by various prominent works, most prominently *Al-ʿĀlim wa-al-mutaʿallim* (*The Scholar and the Student*) and the *Fiqh al-Absat* (*The Comprehensive Book of Jurisprudence*) (both ed. al-Kawthari 1949), although these are now thought to be the work of his disciples. Of the *Fiqh al-akbar* (*The Great Book of Jurisprudence*), only the first part represents his views (ed. 1907; tr. Ibn Yusuf 2007).

Secondary sources. Hallaq, *Origins and Evolution of Islamic Law* (2005); Shibli Numani, *Abu Hanifah* (1988); BEIP (Kiliç); EI (Schacht).

ABŪ HĀSHIM (ʿAbd al-Salām al-Jubbāʾī) b. Basra; d. Baghdad, 933. Muʿtazilī theologian. Son of al-Jubbāʾī. No writings are extant, but his views are discussed extensively in later polemical works. Best known for his account of the divine attribute in terms of modes.

Secondary sources. Frank, "Attribute" (1982); Gimaret, "Théorie des *aḥwāl*" (1970), "Matériaux" (1976); EI (Gardet).

ABŪ AL-HUDHAYL AL-ʿALLĀF b. Basra *ca.* 750; d. Samarra, 840/50. Foundational Muʿtazilī theologian. Spent most of his life in Basra; later joined the court circle at Baghdad. Although a prolific author, no works are extant. His influence on later thought was nevertheless considerable, both through his writings and through the disciples he attracted.

Secondary sources. Frank, *Metaphysics of Created Being* (1966); BEIP (İskenderoğlu); EI (Nyberg).

ABŪ MAʿSHAR (Jaʿfar ibn Muḥammad ibn ʿUmar al-Balkhī; Albumasar) b. 787; d. 886. Leading Arabic advocate of astrology, active in Baghdad, where he was at first a rival and then an associate of al-Kindī. Grounded his astrological theory in a well-developed astronomical system, drawing above all on the work of Aristotle, but also Neoplatonism and a wide range of other sources. Influential on Latin authors in the twelfth and thirteenth centuries; regarded as a principal authority in astrology. Major works include

the *Madkhal al-kabīr* (*Greater Introduction to Astronomy*) (ed. [Arabic/Latin] Lemay 1995); an abridgement of that work (ed. [Arabic/Latin] and tr. Burnett *et al.* 1994); and the *Kitāb al-milal wa-al-duwal* (*Book of Great Conjunctions*) (ed. [Arabic/Latin] and tr. Yamamoto and Burnett 2000).

Secondary sources. Adamson, "Defense of Astrology" (2002); Lemay, *Abu Maʿshar and Latin Aristotelianism* (1962); BCPMA (Hackett); DSB (Pingree); EI (Burnett).

ABŪ SAʿĪD AL-SĪRĀFĪ d. 979. Judge and grammarian. Famous for his Baghdad debate with Abū Bishr Mattā [932] (ed. and tr. Margoliouth, in "Discussion" 1905), in which he argued that Greek logic is valid only for the Greek language and that Arabic grammar requires its own logic. His magnum opus is a massive commentary on Sībawayhi's *Kitāb* (ed. ʿAbd al-Tawwāb *et al.* 1986–).

Secondary sources. Endress, "Grammatik und Logik" (1986); Gunaydin, "Theory of 'Lingua-Logical' Grammar" (2006); Mahdi, "Language and Logic" (1970); EI (Humbert).

ABŪ TAMMĀM *fl.* Khurasan, tenth century. Ismāʾīlī missionary and philosopher. Disciple of Muḥammad al-Nasafi. Probably the author of the *Kitāb al-shajara* (pt. 2 ed. Tāmir 1965, as *Kitāb al-īḍāḥ*; pt. 1 part. ed. and tr. Madlung and Walker 1998).

Secondary sources. Walker, "Abū Tammām" (1994), "The Ismāʾīlīs" (2005).

ABŪ ZAYD AL-BALKHĪ b. near Balkh (Afghanistan), *ca.* 850; d. 934. Wide-ranging scholar. Traveled to Iraq as a young man, where he was a student of al-Kindī. His only known philosophical work is the recently discovered *Maṣaliḥ al-abdān wa-al-anfus* (*Sustenance for Body and Soul*) (ed. Miṣrī 2005).

Secondary sources. Rosenthal, "Politics" (1989); EI (Dunlop).

ACCURSIUS b. near Florence, *ca.* 1184; d. Bologna, *ca.* 1260. Italian jurist. A student of Azo, becoming professor at Bologna. Composed the *Glossa ordinaria* or *Magna glossa* [1220/50] (ed. 1488/1968, etc.) on Roman law as codified by Justinian.

Secondary sources. Landsberg, *Glosse* (1883); Tierney, "Origins of the Modern State" (1968); Weigand, *Naturrechtslehre* (1967); DBI (Fiorelli); CALMA.

ACHARD OF ST. VICTOR b. England; d. *ca.* 1170/1. Theologian and spiritual author. Studied at St. Victor in Paris, becoming abbot in 1155. Elected bishop of Avranches in 1161. Extant works include treatises *De discretione animae et spiritus et mentis* (ed. Häring 1960) and *De trinitate* (*De unitate divinae essentiae et pluralitate creaturarum*) (ed. Martineau 1987), as well as a set of fifteen sermons (ed. Châtillon 1970), all available in translation (tr. Feiss 2001).

Secondary sources. Châtillon, "Le *De discretione*" (1964), *Theologie, spiritualité et métaphysique* (1969); Ilkhani, *Philosophie de la création* (1999); CALMA.

ADAM OF BALSHAM (Parvipontanus) b. near Cambridge, 1100/2; d. 1157/69. Logician. Studied in Paris from *ca.* 1120. Master of a school on the Petit Pont in Paris by 1132,

which gave rise to one of the main schools of twelfth-century logic, the *Adamiti* or *Parviponti*. Canon of the Paris Cathedral from 1146. Took part in several Church councils investigating Gilbert of Poitiers. His chief work, the *Ars disserendi* [1132] (ed. Minio-Paluello 1956), is an important and influential early text in medieval logic. Also extant is a treatise on rare words, the *De utensilibus ad domum regendam* (or *Phalae tolum*) (ed. Hunt, in *Teaching and Learning* 1991).

Secondary sources. De Rijk, *Logica modernorum* (1962–7); Minio-Paluello, "Ars disserendi" (1954); CALMA; DMA (de Libera); Dronke; ODNB (Klibansky).

ADAM OF BUCKFIELD (Bockenfield, Bocfeld) b. Northumberland, *ca.* 1220; d. 1279/92. Oxford arts master and author of influential commentaries on Aristotle. Studying at Oxford by 1238; master by 1243. Canon of Lincoln Cathedral by 1263. Commentaries on a large number of Aristotelian works are extant in many manuscripts, often in multiple redactions (mostly unedited), including the *Metaphysics* (part. ed. Maurer 1955), *Physics*, *De caelo*, *De generatione*, *Meteorologica*, *De anima* [*ca.* 1145] (part. ed. Callus, in "Two Early Oxford Masters" 1939), and the *Parva naturalia*, as well as the *De causis*. Commentaries on the *De somno et vigilia*, the *De somnis*, and the *De divinatione per somnum* have been edited as works of Aquinas (ed. 1852–73, etc.).

Secondary sources. Grabmann, "Aristoteleskommentatoren" (1936); Noone, "Evidence" (1992); Thomson, "Works" (1944), "Further Note" (1958); CALMA; DMA (Beyer de Ryke); Lohr; ODNB (Long); Weijers.

ADAM MARSH (de Marisco) b. Bath, *ca.* 1200; d. 1259. Theologian, founding figure of the Franciscan chapter at Oxford. Master of arts at Oxford by 1226. Joined the Franciscan order in 1232. Studied theology under Robert Grosseteste, becoming the first Franciscan theology master at Oxford from 1242 to 1250. Despite his scholarly reputation, particularly as a biblical scholar, the only extant writings ascribed with certainty are a collection of letters [1241–59] (ed. Brewer 1858).

Secondary sources. Lawrence, "Letters" (1991); Little, "Franciscan School" (1926); CALMA; ODNB (Lawrence).

ADAM PULCHRAE MULIERIS (Bellefemme) *fl. ca.* 1230. Paris master of theology. Almost nothing is known about Adam's life (even the name is suspected of being corrupt). Extant works are fragments of a *Sentences* commentary (unedited), and the *Memoriale rerum difficilium naturalium* (or *Liber de intelligentiis*) [*ca.* 1230] (ed. Baeumker, in *Witelo* 1908), a work seemingly inspired by Robert Grosseteste's metaphysics of light, which would later be cited by Aquinas and others.

Secondary sources. Baeumker, "Zur Frage" (1924); CALMA; DMA (Beyer de Ryke); Weijers.

ADAM WODEHAM (Wodham, Wodam, Godam) b. *ca.* 1298; d. 1358. Franciscan friar and theologian. Lectured on the *Sentences* in London and again in Norwich in the late 1320s, before moving to Oxford in the early 1330s, where he became regent master around 1338. A younger contemporary of Ockham's, and perhaps his assistant, but an

independent thinker in many respects, and often cited by later scholastics. His principal surviving philosophical work is his *Sentences* commentary, in multiple redactions. The interrelationship of these redactions is controversial. The so-called *Lectura secunda* [Bk. I up to d. 26] (ed. Wood and Gál 1990; d. 1 q. 1 tr. CTMPT III), a *reportatio* found in a single manuscript, has been identified by its editors with his lectures in Norwich, but has also been claimed to be a version of his Oxford lectures. The Oxford lectures (*ca.* 1332–4) have survived in three redactions, and are also printed in an abbreviated form (ed. Major 1512). No full edition from the manuscripts has been made, even though this is clearly Wodeham's most important work. Also surviving are two works on the continuum, the brief *Quaestio de divisione et compositione continui* (ed. Murdoch and Synan, in "Two Questions" 1966) and the book-length *Tractatus de indivisibilibus* (ed. and tr. Wood 1988), both written between 1322 and 1331.

Secondary sources: Courtenay, *Adam Wodeham* (1978); Brower-Toland, "Facts vs. Things" (2006); Grassi, *Intuizione e significato* (1986); Kretzmann, "Adam Wodeham's Anti-Atomism" (1984); Perler, "Seeing and Judging" (2008); Wood, "Adam Wodeham on Sensory Illusions" (1982); BCPMA (Wood); CALMA; ODNB (Courtenay).

ADELARD OF BATH b. Bath, *ca.* 1080; d. *ca.* 1152. English natural philosopher. Also published in metaphysics and translated mathematical works into Latin from Arabic. Studied at Tours, taught at Laon. Spent seven years in Salerno, Sicily, and the near East, where he learned Arabic. An influence on thirteenth-century English thinkers, such as Grosseteste and Roger Bacon, although his work in natural philosophy would largely be overshadowed by Aristotle. His most important work in natural philosophy is the *Quaestiones naturales* [before 1137, probably much earlier] (ed. and tr. Burnett *et al.* 1998), written in dialogue form. The metaphysical *De eodem et diverso* [before 1116] (ibid.) attempts a reconciliation of Plato and Aristotle, and offers a theory of universals. Among his many other scientific and mathematical treatises are a work on hawking, *De avibus* (ibid.), and an early work *Regulae abaci* (ed. Boncompagni 1881). Particularly influential were three versions of Euclid's *Elements*, in differing formats, all of which circulated widely, although only the first is ascribed to Adelard with confidence (ed. Busard 1983; ed. Busard and Folkerts 1992; ed. Busard 2001).

Secondary sources: Burnett, *Adelard of Bath* (1987); Burnett, "Algorismi" (1996); Clagett, "The Medieval Latin Translations of Euclid" (1953); Cochrane, *Adelard of Bath* (1994); Dickey, *Adelard of Bath* (1982); Jolivet, *Philosophie médiévale arabe et latine* (1995); BCPMA (Hackett); CALMA; DMA (Ricklin); Dronke; DSB (Clagett); ODNB (Burnett).

ADHEMAR OF ST. RUF d. *ca.* 1184. Theologian from the "little school" of Porretanians. Augustinian canon regular at St. Ruf (Avignon). Author of a *De Trinitate* (ed. Häring 1964) in defense of Gilbert of Poitiers. Assembled a large collection of patristic texts (unedited).

Secondary sources. Dondaine, *Écrits* (1962); Häring, "Vatersammlung" (1963), "Patristic Collection" (1966); Pelster, "Verteidigungsschrift" (1948); CALMA.

AEGIDIUS, *see* Giles.

AELRED OF RIEVAULX (Ailred) b. Hexham (Northumberland), *ca.* 1110; d. 1167. Cistercian monastic leader and spiritual author. Educated at Hexham and probably Durham; joined the court of the Scottish king after 1124. Entered the Cistercian monastery at Rievaulx (Yorkshire) in *ca.* 1134. Abbot from 1147 until his death, during which time he exercised considerable political and ecclesiastical influence. His writings include a *De anima* [*ca.* 1165] (ed. Talbot 1952; tr. Talbot 1981) and various spiritual works, including the *Speculum caritatis* [1142] (tr. Webb and Walker 1962) and a dialogue *De spiritali amicitia* [*ca.* 1160] (tr. Williams 1994). Also extant are a large number of sermons and various historical and hagiographical works (PL 195). An edition of the *Opera omnia* is in progress (ed. Hoste and Talbot 1971–). There is also a contemporary *Vita Ailredi* by Walter Daniel (ed. and tr. Powicke 1950/1978/1994).

Secondary sources. Hoste, *Bibliotheca Aelrediana* (1962); Burton, *Bibliotheca Aelrediana Secunda* (1997); Nouzille and Boulnois, *Expérience de Dieu* (1999); Squire, *Aelred of Rievaulx* (1981); CALMA; DMA (Nouzille); ODNB (Bell).

ALAN OF LILLE (Alanus ab Insulis, Alain de l'Isle, von Ryssel) b. Lille, *ca.* 1120; d. Cîteaux, 1202/3. Theologian, philosopher, and poet. Studied with Gilbert of Poitiers in Chartres or Paris, and probably with Bernard Silvestris in Tours. Taught in Paris and Montpellier, after *ca.* 1150. Later retired to the monastery of Cîteaux, where he remained until his death. His best-known works are two allegorical treatises: *De planctu Naturae* [late 1160s] (ed. Häring 1978; tr. Sheridan 1980), in which Nature plays a role like that of Philosophy in Boethius's *Consolation of Philosophy*, and the verse epic *Anticlaudianus* [*ca.* 1182–83] (ed. Bossuat 1955; tr. Sheridan 1973), which takes as its subject "the good and perfect man." Also extant are a treatise *De virtutibus et vitiis* (ed. Lottin, in *Psychologie et morale* VI [1960]), a *Liber penitentialis* (ed. Longère 1965) and three major works of theology: *Regulae caelestis iuris* (*Theologicae regulae*) [1170–80] (ed. Häring 1981); *Summa 'Quoniam homines'* [1170–80] (ed. Glorieux 1953); and *De fide catholica* (*Summa contra haereticos*) [1185–1200] (ed. PL 210; excerpts tr. Wakefield and Evans, in *Heresies* 1969), the last a guide to preaching against heretics and unbelievers. For various shorter works and further bio-bibliographical information, see *Textes inédits* (ed. d'Alverny 1965).

Secondary sources. Evans, *Alan of Lille* (1983); Raynaud de Lage, *Alain de Lille* (1951); Sweeney, *Logic, Theology, and Poetry* (2006); BCPMA (Marenbon); CALMA; DMA (Erismann); Dronke.

ALBERIC OF PARIS *fl.* 1130s–40s. Influential logician, opponent of nominalism. Replaced Peter Abaelard at the school of Mount St. Geneviève near Paris in 1137. Traveled to Bologna, perhaps studying parts of Aristotle's new logic there; subsequently returned to teach at Mount St. Geneviève. No works are extant, but Alberic's influence is evident in the writings of his followers, the Albricani and the Montani.

Secondary sources. De Rijk, "New Evidence" (1966); Iwakuma, "Influence" (2004); Marenbon, *Aristotelian Logic* (2000).

ALBERT THE GREAT (Albertus Magnus, Albert of Cologne) b. *ca.* 1200; d. 1280. Dominican philosopher and theologian, and one of the great masters of the scholastic era; the first medieval Latin author to attempt a comprehensive study of the entire Aristotelian

corpus. An important figure in subsequent centuries, as shown by the enduring legacy of Albertists among later scholastics. Joined the Dominican order in 1223 while studying law at Padua, continued his studies under the Dominicans, probably in Cologne, and subsequently taught at various Dominican schools in Germany throughout the 1230s. Sent to Paris to study theology *ca.* 1241 and subsequently became regent master of theology from 1245 to 1248, the period when Aquinas commenced his studies at Paris (although Aquinas was perhaps at first studying in the arts faculty). Returned to Cologne in 1248 to found a Dominican *studium generale*, taking Aquinas with him. The remainder of his career was divided between various ecclesiastical and teaching positions throughout Germany.

Early major works include the *De natura boni* [1230s], *Summa de creaturis* [by 1246], and a *Sentences* commentary [completed 1249], works that already display his extensive familiarity with Aristotle and the Greco-Arabic commentary tradition. Beginning in Cologne, and for the next twenty years, he undertook a series of commentaries on nearly all of Aristotle's corpus, mostly in the form of paraphrases. This is the most extensive such set of commentaries from the Middle Ages. Among the most notable are the *Physics* [circa 1250], *Ethics* [1250–52, and again in 1262–63] (Bk. X of the earlier, tr. CTMPT II), the Organon [1252–6], and *Metaphysics* [1263–7]. Albert also produced commentaries on many other works, including those of pseudo–Dionysius [late 1240s] (*Mystical Theology* tr. Tugwell 1988), Euclid's *Elements* [1262–3], and an extensive set of biblical commentaries. Two comparable older versions of Albert's *Opera omnia* are available (ed. Jammy 1651, 21 vols.; ed. Borgnet 1890–9, 38 vols.). A critical edition is in progress, but less than half complete (ed. Geyer *et al.* [Cologne] 1951–, 40 vols. projected).

Secondary sources. Resnick and Kitchell, *Albert the Great: Bibliography (1900–2000)* (2004); Craemer-Ruegenberg, *Albert the Great* (2005); de Libera, *Métaphysique et noétique* (2005); Hoenen and de Libera (eds.), *Albertus Magnus und der Albertismus* (1995); Kovach and Shahan (eds.), *Albert the Great* (1980); Meyer and Zimmermann (eds.), *Albertus Magnus* (1980); Senner and Anzulewicz (eds.), *Albertus Magnus* (2001); Weisheipl (ed.), *Albertus Magnus and the Sciences* (1980); Zimmermann (ed.), *Albert der Große* (1981); BCPMA (Dreyer); CALMA; Kaeppeli; REP (de Libera); SEP (Führer); Weijers.

ALBERT OF ORLAMÜNDE *fl.* late thirteenth century. Dominican friar, teacher in Thüringen. Author of a short textbook on natural philosophy, the *Philosophia pauperum* or *Summa naturalium* (ed. Venice 1496, etc.; part. ed. Geyer, in *Summa naturalium* 1938), based on the writings of Albert the Great.

Secondary sources. Grabmann, "Philosophia pauperum" (1918); CALMA; Kaeppeli.

ALBERT OF SAXONY (Albert of Rickmersdorf, Albertus Parvus, Albertutius) b. *ca.* 1316; d. 1390. Arts master at Paris from 1351 to 1361, author of influential works in logic and natural philosophy. Founder and first rector of the University of Vienna in 1365. Bishop of Halberstadt from 1366 until his death. Later regarded as one of the principal adherents of nominalism, along with his near contemporaries at Paris, John Buridan and Marsilius of Inghen, whose works are often so similar as to be confused with each other. The subsequent wide circulation of Albert's work made him a better-known figure in some areas than more talented contemporaries like Buridan and Nicole Oresme.

Albert's principal logical work is the *Perutilis logica* [*ca.* 1360] (tr. [Sp] Muñoz García 1988, with text of 1522/1974 ed.; tract. II ed. Kann, *Eigenschaften* 1993; tract. VI. c. 1, *De insolubilibus*, tr. CTMPT I); he also authored a *Sophismata* [*ca.* 1359] (ed. 1502/1975, etc.]) and a set of twenty-five *Quaestiones logicales* [*ca.* 1356] (ed. Fitzgerald 2002), as well as commentaries on the *ars vetus* [*ca.* 1356] (ed. Muñoz García 1988) and the *Posterior Analytics* (ed. 1497/1986, etc.). His surviving Aristotle commentaries are mostly in natural philosophy, most prominently the *Physics* [*ca.* 1351] (ed. Patar 1999); *De caelo* [*ca.* 1354] (ed. 1492/1986 etc.); and *De generatione et corruptione* (ed. 1505/1970, etc.). Commentaries on the *Nicomachean Ethics* and the *Economics* also survive (both unedited), as well as several short mathematical texts, most notably the *Tractatus proportionum* [*ca.* 1353] (ed. Busard 1971). Although Albert studied theology in Paris, no theological writings survive.

Secondary sources. Sarnowsky, *Theorie der Bewegung* (1989) [life and works]; Muñoz García, "Albert of Saxony, Bibliography" (1990) [texts, manuscripts, editions]; Berger, "Bibliographie der Sekundärlitteratur" (1994); Biard (ed.), *Itinéraires d'Albert de Saxe* (1991); Heidingsfelder, *Kommentar zur Nikomachischen Ethik* (1927); Kann, *Die Eigenschaften der Termini* (1993); BCPMA (Grant); CALMA; DMA (de Libera); DSB (Moody); Lohr; REP (Biard); SEP (Biard); Weijers.

ALCHER OF CLAIRVAUX d. *ca.* 1165. Cistercian monk. Once thought the author of the influential pseudo-Augustinian *De spiritu et anima* (PL 40; tr. McGinn 1977) [mid-twelfth century], but this is now generally doubted. Various other works have also questionably been ascribed to Alcher, including *De diligendo Deo*, *Soliloquium animae ad Deum*, *Liber meditationum* (all PL 40), and *De anima* (PL 177 and 184).

Secondary sources. Raciti, "Autore" (1961); CALMA; DS (Canivez).

ALCUIN (Albinus) b. Northumbria, *ca.* 740; d. Tours, 804. Poet, historian, theologian, philosopher, and political force; central figure in the Carolingian renaissance. Educated at the cathedral school at York, where he remained until 786, when he journeyed to the court of Charlemagne. Returned to York in 790, and then back to the French court in 793. Appointed abbot of St. Martin's at Tours in 796. Alcuin's philosophical importance lies in his role in reviving the study of the arts and theology in both England and France. His extant works reflect his core pedagogical interests in the *trivium*, and include treatises *De orthographica* (ed. Bruni 1997), *De grammatica*, *De dialectica*, *De rhetorica et virtutibus* (ed. and tr. Howell 1941), as well as a *De vera philosophia* and a *De vitiis et virtutibus*. Among his theological writings, the *De fide sanctae trinitatis* and the *Contra haeresim Felicis* (ed. Blumenshine 1980) are particularly notable. His works are collected in PL 100-1. A great many letters are also extant (ed. Dümmler 1895; tr. Allot 1974).

Secondary sources. Germann, *De temporum ratione* (2006); Houwen and MacDonald (eds.), *Alcuin of York* (1998); Jullien and Perelman, *Clavis des auteurs Latins* (1999); Marenbon, *Circle of Alcuin* (1981); Wallach, *Alcuin and Charlemagne* (1959); CALMA; DMA (Veyrard-Cosme); ODNB (Bullough).

ALEXANDER OF ALEXANDRIA (Bonini) b. Alessandria (Piedmont), *ca.* 1268; d. Rome, 1314. Franciscan theologian. Became a friar as a youth. Sent to Paris to study theology;

after an interruption in his studies caused by ecclesiastical controversy, he became regent master in Paris in 1307–8, succeeding Scotus. Named Franciscan provincial minister of Genoa in 1308 and minister general in 1313. Extant works include commentaries on the *Metaphysics* [1304/6] (ed. 1572) and *De anima* [*ca.* 1306] (ed. 1481, etc.); an early *Sentences* commentary heavily dependent on Bonaventure [1301–3]; a rewritten and original commentary [1307–8]; and a *Quodlibet* [1307–8] (all unedited). In addition, various biblical commentaries survive (unedited), as well as several treatises concerning the Franciscan spiritualist controversy, which he took a strong role in combatting: a *Responsio ad Ubertinum de Casale* (ed. Chiappini 1914) and a *Tractatus de usu paupere* (ed. Heysse 1917). Also extant is a *Tractatus de usuris* (ed. Hamelin 1962).

Secondary sources. Amerini, "Nature of Essence" (2004), "Natura degli accidenti" (2005); Krause, "Abriss der Erkenntnistheorie" (1980); Rossini, "Quod coexsistit exsistit" (1995); Schabel and Rossini, "Time and Eternity" (2005); Veuthey, "Alexandre d'Alexandrie" (1931–2); DBI (Manselli); DMA (Boulnois); FA; Lohr; Weijers.

ALEXANDER OF HALES b. Gloucestershire, *ca.* 1185; d. Paris, 1245. Founding father of scholastic theology, insisted on the independence of philosophy and gave considerable impetus to the later medieval project of systematic theology. Son of a wealthy English family, he studied at Paris, became master of arts before 1210 and master of theology *ca.* 1220. Entered the Franciscan order in 1236, and became the first Franciscan at Paris to hold a chair in theology. Remained regent master in Paris for most of his life, and his chair would subsequently be reserved for a Franciscan. Alexander instituted the practice of commenting on Lombard's *Sentences*, and his *Glossa* on the Sentences [1223–7] (ed. 1951–7) is his earliest known work. Traditionally he is best known for the *Summa theologica* (*Summa Halesiana, Summa Fratris Alexandri*) (ed. 1924–48), but it is now clear that although he began this influential work, it was in large part written by others, albeit under his direction, and often using material from his earlier work. His other principal surviving works are a series of theological disputations; those dating from before 1236 have been edited (ed. 1960); an equally large number of later questions awaits an edition.

Secondary sources. Osborne, "Alexander of Hales" (1994) [biography]; Herscher, "Bibliography" (1945); Boehner, "System of Metaphysics" (1945); Gössmann, *Metaphysik und Heilsgeschichte* (1964); BCPMA (Cullen); CALMA; REP (Gál).

ALEXANDER LANGELEY *fl.* 1330s. Franciscan theologian. Lectured on the *Sentences* at Oxford between 1335 and 1340, from which a commentary on Bks. I–III is extant (Bk. I ed. Edwards 1999). An earlier set of lectures has not been found.

Secondary sources. Edwards, "Themes and Personalities" (2002); CALMA.

ALEXANDER NECKAM (Nequam) b. St. Albans (Hertfordshire), 1157; d. Kempsey (Worcestershire), 1217. Encyclopedic scholar. Studied first at the grammar school at St. Albans, and then in Paris from 1175 to 1182. Subsequently returned to England, teaching at St. Albans and later teaching theology at Oxford in the 1190s. Became an Augustinian canon at Cirencester in 1197/1202; elected abbot in 1213. Best known for two encyclopedic works, the *De naturis rerum* [before 1205] (Bks. I–II ed. Wright 1863) and the verse *De laudibus divinae sapientiae* [*ca.* 1213] (ed. Wright 1863), supplemented

by the *Suppletio defectuum* [*ca.* 1213] (Bk. I ed. and tr. McDonough 1999). His many theological works include a scholastic *summa*, the *Speculum speculationum* (ed. Thomson 1988). Also extant is a commentary on Martianus Capella [*ca.* 1177] (ed. McDonough 2006), collections of fables (ed. Garbugino 1987), and a number of biblical commentaries and sermons (unedited).

Secondary sources. Hunt, *Schools and the Cloister* (1984); CALMA; DMA (Grondeux); Dronke; ODNB (Goering).

ALEXANDER OF VILLA DEI b. near Avranches, *ca.* 1160/70; d. Avranches, *ca.* 1240. Mathematician and grammarian. Educated at Paris, becoming canon of the cathedral of Avranches. Extant works include the verse grammar *Doctrinale* (ed. Reichling 1893/1974); the *Ecclesiale* (ed. and tr. Lind 1958); a *Massa compoti* (or *Computus ecclesiasticus*) ranging widely over canon law, theology, and science (ed. and [Fr] tr. Van Wijk 1936); and the *Carmen de musica* (ed. Seay 1977).

Secondary sources. Gutiérrez Galindo, *El Doctrinal* (1993) [Sp. tr. with introduction and notes]; CALMA; Weijers.

ALFARABI, *see* Fārābī.

ALFRED OF SHARESHILL (Shareshel, Alfredus Anglicus) b. Shareshill (near Lichfield); *fl. ca.* 1197 − *ca.* 1222. Scientist, translator. Little is known of his life, but he likely spent time in Toledo, since his translations of Aristotle seem part of the larger project advanced there by Gerard of Cremona and Michael Scot. Translated the pseudo-Aristotelian *De plantis* of Nicholas of Damascus (ed. Drossaart Lulofs and Poortman 1989) and *De mineralibus* [from Avicenna's *Shifā'*] (ed. Holmyard and Mandeville 1927/1982). Wrote commentaries on these works (*In De plantis* ed. Long 1985) and on the *Meteorology* (ed. Otte 1988). Best known for an independent treatise, the *De motu cordis* (ed. Baeumker 1923), an early example of the influence of the new Aristotle on Latin philosophy. A large number of other Aristotelian commentaries, no longer extant, testify to his importance in that movement.

Secondary sources. Baeumker, *Stellung* (1913); Otte, "Life and Writings" (1972), "Reception of Aristotle (1990); Struve, "Anthropologie" (1973); CALMA; DMA (Beyer de Ryke); Dronke; ODNB (Burnett); Weijers.

ALGAZALI, *see* Ghazālī.

ALGER OF LIÈGE b. Liège, *ca.* 1060; d. Cluny, 1132/5. Theologian, historian. Studied at Liège, where he became deacon of St. Bartholomew. Canon of the St. Lambert Cathedral *ca.* 1100–21, subsequently retiring to the monastery at Cluny. Author of the *Liber de misericordia et iusticia* (ed. Kretzschmar 1985), an early source for canon law; a treatise on the Eucharist, *De sacramento corporis et sanguinis Domini* (ed. 1873); and a *Libellus de gratia et libero arbitrio* (PL 180).

Secondary sources. Brigué, *Alger de Liège* (1936); BBK (Bautz); CALMA.

ALHAZEN, *see* Ibn al-Haytham.

ʿALĪ IBN AL-ʿABBĀS AL-MAJŪSĪ (Haly Abbas) b. al-Ahwāz; d. 982/95. Leading medical authority. Lived in Shiraz. Author of the *Kitāb kāmil al-ṣināʿa al-ṭibbīyya* (*The Complete Book of the Medical Art*) (ed. Sezgin 1985), which became an important medical textbook in both Arabic and Latin. The first Latin translation was by Constantine the African [*ca.* 1080], who called it the *Pantegni* (ed. 1515). It was translated again by Stephan of Antioch in 1127, as the *Liber regalis dispositionis* (ed. 1492).

Secondary sources. Burnett and Jacquart (eds.), *Constantine the African* (1994); EI (Elgood).

ALKINDI, *see* Kindī.

ʿALLĀMA AL-ḤILLĪ b. Hilla (Iraq), 1250; d. 1325. Influential Shīʿite theologian. Born into a family of distinguished scholars; studied philosophy with al-Ṭūsī. Moved to Persia in 1305, where he was influential in the adoption of Shīʿism as the state religion. Hundreds of works are attested, mostly lost. His *Bāb al-ḥādī ʿashar* (ed. Muḥaqqiq 1986; tr. Miller 1928) and *Sharḥ tajrīd al-iʿtiqād* (*Commentary on* [*al-Ṭūsī's*] *Abstract of Theology*) (ed. 1988) are fundamental texts of Imāmī Shīʿism.

Secondary sources. Schmidtke, *Theology* (1991); BEIP (Leaman); EI (Jafri).

ALPHONSUS VARGAS OF TOLEDO d. 1366. Augustinian friar and theologian. Lectured on the *Sentences* at Paris [1344–45] (Bk. I only, ed. 1490/1952). Succeeded Gregory of Rimini to the Augustinian chair of theology at Paris in 1346/7. Elected archbishop of Seville in 1361. A set of questions on the *De anima* is also extant (ed. 1477, etc.).

Secondary sources. Kürzinger, *Alfonsus Vargas* (1930); Schabel, *Theology at Paris* (2000); Trapp, "Augustinian Theology" (1956); CALMA; Weijers.

ALRAZI, *see* Rāzī.

AMALRIC OF BENE (Amaury) b. Bène (near Chartres); d. *ca.* 1206. Studied the arts in Paris, becoming master there. Censured by the university shortly before his death. Condemned posthumously in 1210, along with his disciples, for his alleged pantheistic statement that *quicquid est est Deus*. No works survive; his views are known only through the criticisms of others (ed. Capelle, in *Amaury* 1932).

Secondary sources. D'Alverny, "Fragment du procès" (1950–1); Lucentini, "L'eresia" (1987); Thijssen, "Master Amalric" (1996); DMA (Casadei); Dronke; Weijers.

AL-ʿĀMIRĪ (Abū al-Ḥasan Muḥammad ibn Yūsuf) b. Khorasan; d. Nishapur, 992. Philosopher and theologian. Studied with Abū-Zayd al-Balkhī; subsequently lived in Rayy, Baghdad, Bukhara, and Nishapur. His work (ed. Khalifat 1996), while philosophical, tends to defend Islam against philosophical encroachment. Among his extant works are a treatise on the afterlife, *Kitāb al-amad ʿalā al-abad* (*On the Afterlife*) [986] (ed. and tr. Rowson 1988) and a paraphrase of Proclus's *Elements of Theology* (ed. and [German] tr. Wakelnig 2006).

Secondary sources. Wakelnig, "Hierarchy of Being" (2007); REP (Gaskill); HIP (Rowson); EI (Rowson).

ANDREW OF CORNWALL b. Cornwall; *fl.* late thirteenth century. Master of arts in Paris. Extant works are questions on the *Isagoge* and on the *Liber de sex principiis* (both unedited).

Secondary sources. Andrews, "Reception of Modism" (1999); CALMA; Lohr; Weijers.

ANDREW OF NEUFCHÂTEAU (Andreas de Novo Castro) b. Lorraine; d. *ca.* 1400. Franciscan theologian at Paris. Commented on the first book of Lombard's *Sentences* in 1358–9 (ed. 1514; part. ed. Friedman, in "Divine Omnipotence" 1994; part. ed. and tr. Idziak 1997). His work has attracted particular attention for its treatment of the semantics of propositions. Also composed a treatise on the immaculate conception (ed. Piana *et al.* 1954).

Secondary sources. Elie, *Le complexe significabile* (1936); Tachau, "Questiones" (1992); CALMA; FA.

ANDREW OF ST. VICTOR b. England, *ca.* 1110; d. Wigmore (Herefordshire), 1175. Biblical scholar. Studied in Paris, becoming an Augustinian canon at St. Victor. Returned to England *ca.* 1147 to become the first abbot of Wigmore. His exegetical treatises are distinctive for their use of the Hebrew text, but are not highly theological in character. Extant works include commentaries on Samuel, Kings, Wisdom, Ezechiel, and Daniel (ed. Lohr *et al.* 1986–).

Secondary sources. Smalley, *Study of the Bible* (1983); CALMA; ODNB (Gibson).

ANGELO OF FOSSOMBRONE *fl.* 1395–1402. Arts master and logician. Taught at Bologna from 1395 to 1400 and Padua from 1400 to 1402. Author of an *Insolubilia* (unedited) and a commentary on part of William Heytesbury's *Regulae* (unedited).

Secondary sources. Federici Vescovini, "Commento" (1982); Spade, *Mediaeval Liar* (1975); DBI (Leonardi); CALMA.

ANSELM OF CANTERBURY (of Aosta, of Bec) b. Aosta (northwest Italy), 1033; d. Canterbury, 1109. Philosopher and theologian whose ontological argument is only the most famous of his many important ideas. Left his native land as a young man; arrived in 1059 at the Benedictine monastery at Le Bec (Normandy), where he studied with Lanfranc. Quickly became prior and eventually abbot. Consecrated archbishop of Canterbury in 1093, a position he held until his death, although twice in exile. A contemporary biography by Eadmer (ed. and tr. Southern 1962) presents a clear picture of his life.

Best-known works in philosophical theology are the *Monologion* [1075–6] and *Proslogion* [1077–8], as well as the later *Cur Deus Homo* [1095–8], on the incarnation. Of special philosophical interest are the early *De grammatico* [1059–60] and three closely related dialogues: *De veritate*, *De libertate arbitrii*, and *De casu diaboli* [1080–86], which focus on issues of freedom and responsibility to which he later returned in the *De concordia* [1107–8]. The standard edition is Schmitt (1946/1968); many translations are available.

Secondary sources. Davies and Leftow, *Cambridge Companion* (2004); Southern, *Portrait* (1990); Evans, *Concordance* (1984), *Anselm* (1989); Henry, *Logic of Saint Anselm* (1967); Williams and Visser, *Anselm* (2008); CALMA; BCPMA (Hopkins); DBI (Schmitt); ODNB (Southern); REP (Hopkins); SEP (Williams).

ANSELM OF COMO *fl.* 1335–44. Master of arts at Bologna. Regarded as an Averroist. Extant works include a short *Quodlibet* and various other brief works (ed. Kuksewicz, in *Averroïsme bolonais* 1965).

Secondary sources. CALMA.

ANSELM OF LAON (Anselmus Laudinensis) b. Laon, before 1050; d. 1117. Renowned exegete and teacher. Probably studied at Bec with Anselm of Canterbury. Taught at Paris from 1076 to 1080, then returned to Laon to take over the direction of the cathedral school with his brother Ralph of Laon. His most important literary legacy is his commentaries on the Bible, including the Psalms (PL 116) and the Song of Songs (ed. and tr. Dove 1997). He seems, with his brother, to have begun what would become the *Glossa ordinaria* on the entirety of the Bible, which would circulate anonymously for centuries (ed. *Biblia latina*, 1480–1/1998; part. ed. PL 113–14). Various theological *Sententiae* are also attributed to Anselm (ed. Bliemetzrieder 1919; ed. Lottin, in *Psychologie* 1959, vol. V), though it is difficult to distinguish his from his students' contribution.

Secondary sources. Bliemetzrieder, "Autour de l'œuvre théologique" (1929); Flint, "School of Laon" (1976); Lefévre, *De Anselmo Laudunensi* (1895); Smalley, *Study of the Bible* (1983); CALMA; DMA (Brouwer).

ANTONINUS OF FLORENCE b. Florence, 1389; d. Florence, 1459. Theologian and famed preacher, particularly influential for his ethical and social thought. Entered the Dominican order as a youth, quickly assuming an important administrative role. Archbishop of Florence from 1446. Principal writings are his *Summa theologica* (*Summa moralis*) [1440–54] (ed. 1740/1959, etc.) and *Confessionale "Defecerunt"* (ed. 1490, etc.)

Secondary sources. Gaughan, *Social Theories* (1951); Howard, *Beyond the Written Word* (1995); Orlandi, *Antonino* (1959); CALMA; DBI; Kaeppeli.

ANTONIUS ANDREAE b. Aragon, *ca.* 1280; d. Catalonia, *ca.* 1320/5. Influential disciple of Scotus. Franciscan friar, studied at Lérida (Catalonia) and then at Paris under Scotus in 1304/7. His published works, which would circulate widely, include a *Sentences* commentary (ed. 1572, etc.), questions on the *ars vetus* (ed. 1508, etc.) and the *Metaphysics* (ed. 1491, etc.), a further *Expositio* of the *Metaphysics* (printed in older Scotus editions), and two shorter works: a *Tractatus formalitatum* and *Quaestiones de tribus principiis rerum naturalium* (both ed. 1475, etc.).

Secondary sources. Bérubé, "Antoine André" (1979); Gensler, "Catalogue of Works" (1992), "Concept of the Individual" (1996); Pini, "Una lettura scotista" (1991), "Scotistic Aristotelianism" (1995); CALMA; FA; Weijers.

ANTONIUS DE CARLENIS DE NEAPOLI b. Monte Aquilo (Cassino), 1386; d. 1460. Philosopher and Dominican theologian. Master of arts in Bologna from 1406 to 1408; subsequently joined the Dominican order. Studied theology in Bologna in 1439; master by 1447. Archbishop of Amalfi from 1449. Extant works include a *Sentences* commentary [1439–40] (part. ed. and tr. Livesey 1994), and questions on both the *Posterior Analytics* [1340s] and *Metaphysics* (both unedited).

Secondary sources. Meersseman, "Antonius de Carlenis" (1933); CALMA; Kaeppeli.

ARETHAS OF CAESAREA b. Patras, *ca.* 850; d. *ca.* 944. Byzantine scholar and politician. Elected archbishop of Caesarea in 902. Extant works include a commentary on the Apocalypse (PG 106) as well as various scholia on Plato, Aristotle, and other classical texts, including comments on the *Isagoge* and *Categories* (ed. Share 1994). In addition to the scholia and letters in PG 106, various works are edited by Westerink (1968–72).

Secondary sources. Lemerle, *Le premier humanisme byzantin* (1971); ODB (Kazhdan).

ARLOTTO OF PRATO b. Tuscany; d. 1286. Franciscan theologian. Studied theology in Paris in the 1270s, becoming regent master in 1284–5. His only extant philosophical work is a disputed question from that period on the eternity of the world (ed. Dales and Argerami, in *Medieval Latin Texts* 1991). Elected minister general of the Franciscan order in 1285.

Secondary sources. CALMA; DBI (Pratesi); FA.

ARMAND OF BELLEVUE (de Belvézer) b. Provence; d. after 1348. Dominican theologian. Appointed master of theology by papal order in 1326. Taught at the Montpellier *studium*, and then in Avignon until 1333. Extant works include a treatise on "difficult terms" in philosophy and theology [*ca.* 1326?] (ed. 1500, etc.); a commentary on Aquinas's *De ente et essentia* [*ca.* 1319] (ed. in Thomas Aquinas 1496, etc.); a response to Durand of St. Pourçain and Thomas Waleys [1333] (ed. van Liere 1992); and various biblical commentaries.

Secondary sources. Barbour, *Byzantine Thomism* (1993); Laurent, "Armandus de Bevézer" (1930); CALMA; DMA (Trottmann); Kaeppeli; Roensch.

ARNALD OF VILLANOVA b. prob. Valencia, 1238/40; d. at sea near Genoa, 1311. Physician, theologian, translator, and natural scientist. Studied in his youth with the Dominicans, subsequently pursuing theology and medicine at Montpellier. Traveled widely through Europe, becoming professor of medicine in Montpellier in 1291. Active as translator of Arabic natural philosophy. Often a controversial figure and repeatedly subject to banishment, in part because of his apocalyptic speculations and agitations for ecclesiastical reform that had affinities with the spiritual Franciscans. His medical renown led to his becoming the physician of rulers and popes. In alchemy too, his subsequent reputation was considerable, although most of the works ascribed to him in this area are spurious. His authentic medical works (ed. García Ballester *et al.* 1975–88) include the *Speculum medicinae* and the *Regimen sanitatis* (tr. Paynell 1597). His writings in Catalan have also been edited (ed. Batllori 1947), as have his spiritual writings (ed. Carreras y Artau 1971). There are multiple Renaissance editions of his complete works (Lyon 1504, etc.).

Secondary sources. Haven, *La vie et les œuvres* (1896/1972); Mensa i Valls, *Arnau de Vilanova* (1994) [bibliography]; Gerwing, *Vom Ende der Zeit* (1996); Perarnau (ed.), *Actes* (1995); Santi, *Arnau de Vilanova* (1986); Ziegler, *Medicine and Religion* (1998); BCPMA (Bertelloni); CALMA; DMA (Suarez-Nani); DSB (McVaugh).

ARNOLD OF SAXONY (Arnoldus Luca) b. Saxony; *fl.* 1225–50. Encyclopedist. Probably a physician. Author of a five-part encyclopedia, the *Liber de floribus rerum naturalium* [*ca.*

1225–50] (ed. Stange 1905–7). Also extant are a treatise on practical medicine and a dialogue on virtue and vice (both unedited).

Secondary sources. Draelants, "Une mise au point" (1992–3), "Encyclopédiste méconnu" (2000); CALMA; DMA (Beyer de Ryke); Lohr; Weijers.

ARNOLD OF STRELLEY b. near Nottingham; d. 1349. Dominican theologian. Lectured on the *Sentences*, probably at Oxford, between 1323 and 1330. Prior of the English province from *ca.* 1340 until his death; king's confessor in 1348. The *Sentences* commentary seems to have survived in an anonymous Erfurt manuscript (unedited). Apparently authored the *Centiloquium theologicum*, formerly ascribed to Ockham (ed. *Opera phil.* VII). Also authored a paraphrase of Ockham's *Tractatus de praedestinatione* (ed. Gelber, in "Ockham's Early Influence" 1988).

Secondary sources. Gelber, *It Could Have Been Otherwise* (2004); Kaeppeli.

AL-ASH'ARĪ (Abū al-Ḥasan) b. Basra, 873/4; d. Baghdad, 935/6. Founder of the Ash'arite school of Islamic theology. Initially a student of Mu'tazilite theology, he turned against it in 912/13 and subsequently inspired the movement that bears his name. Of the many works ascribed to him, only a few have survived, most prominently his *Maqālāt al-islāmiyyīn* (*Discourses of the Proponents of Islam*) (ed. Ritter 1963); the *Kitāb al-Luma'* (*Book of Lights*) (ed. and tr. McCarthy 1953); and the *Al-Ibāna 'an uṣūl al-dīyāna* (*Elucidation of Islam's Foundation*) (tr. Klein 1940).

Secondary sources. Allard, *Le problème des attributs divins* (1965); Frank, "Ash'arite Ontology" (1999); Gimaret, *La doctrine d'al-Ash'arī* (1990); BEIP (İskenderoğlu); EI (Watt).

ASTESANUS OF ASTI d. *ca.* 1330. Franciscan legal scholar and theologian. Author of an important confessional treatise, the *Summa de casibus conscientiae* (*Summa Astesana*) [*ca.* 1317] (ed. 1478, etc.).

Secondary sources. Dietterle, "Die *Summae confessorum*" (1905); Michaud-Quantin, *Sommes de casuistique* (1962); DBI (Abbondanza); CALMA.

AUBRY OF RHEIMS (Albericus) *fl.* 1260s–70s. Arts master at Paris. Rector in 1272. Author of a *Philosophia* [*ca.* 1265] (ed. Gauthier, in "Notes sur Siger " 1984) describing the study of philosophy as the ultimate end of human life.

Secondary sources. Gauthier, "Notes sur Siger" (1984); CALMA; Weijers.

AUGUSTINE OF ANCONA (Augustinus Triumphus) b. Ancona (Italy), 1270/3; d. 1328. Augustinian friar, theologian, and political theorist. Lectured at the Augustinian convent in Padua, then studied theology at Paris, lecturing on the *Sentences ca.* 1303. Returned to lecture at the Augustinian convent at Padua, then returned to Paris, where he became regent master of theology from 1313 to 1315. Subsequently lived in Naples, where he was the chaplain to Charles d'Anjou, son of King Robert of Naples in 1322. Best known as an advocate of papal authority, in his *Summa de potestate ecclesiastica* [1326] (ed. 1473, etc.; part. tr. CTMPT II) and *Tractatus brevis de duplici potestate prelatorum et laicorum* [*ca.* 1314/16] (ed. Scholz 1903/1962). A great many other works are extant but unedited,

including his *Sentences* commentary (Bk. I only), commentaries on the *Prior Analytics* and *Metaphysics*, and a large number of biblical commentaries.

Secondary sources. Kölmel, "Einheit und Zweiheit der Gewalt" (1963); McCready, "The Papal Sovereign" (1977); McGrade, "Righteousness of Dissent" (1994–7); Ministeri, *De vita et operibus* (1953); Schmaus, "Die Gotteslehre" (1935); Wilks, *Problem of Sovereignty* (1963); CALMA; CHLMP; DBI (Ministeri); DMA (Solère); Lohr; Weijers.

AVEMPACE, *see* Ibn Bājja.

AVENDAUTH, *see* Abraham ibn Daud.

AVERROES (Abū al-Walīd Muḥammad ibn Aḥmad ibn Muḥammad ibn Rushd; The Commentator) b. Cordoba, *ca.* 1126; d. Marrakech, 1198. Famed commentator on Aristotle, his work helped define Latin Aristotelianism. Averroes is the Latin form of his name; in Arabic, he is known as Ibn Rushd. Born into an influential Andalusian family, he became influential himself among the Almohad rulers. Controversy over his views led to exile late in life, although he was restored to influence before his death. Best known for his commentaries on Aristotle: a series of epitomes or *Short Commentaries* (*jāmiʿ*); the paraphrases known as the *Middle Commentaries* (*talkhīṣ*); and finally his definitive works, the five *Long Commentaries* (*shurūḥ* or *tafsīr*): *Posterior Analytics* [1180] (ed. [Arabic] Badawī 1984); *Physics* [1186] (Arabic not extant); *De caelo* [1188] (ed. [Arabic] Endress 1994; ed. [Latin] Carmody and Arnzen 2003); *De anima* [*ca.* 1186] (ed. [Latin] Crawford 1953; tr. Taylor 2009; Arabic not extant); and *Metaphysics* [1190] (ed. Bouyges 1938–52). Prominent among his many other important works are his refutation of al-Ghazālī, the *Tahāfut al-tahāfut* (*Incoherence of the Incoherence*) [1180] (ed. Bouyges 1930; tr. Van den Bergh 1954/1978); the *Faṣl al-maqāl* (*Decisive Treatise*) [1179] (tr. Butterworth 2001, with facing Arabic); the *Kashf al-manāhij* (*Explanation of the Sorts of Proofs in the Doctrines of Religion*) [1180] (ed. Jābirī 1998; tr. Najjar 2001); and the *De substantia orbis* (ed. [Hebrew] and tr. Hyman 1986), with its influential discussion of matter. Many works do not survive, or survive only in Hebrew or Latin translation; much of what has survived has not been translated, and remains most accessible in Latin Renaissance editions (ed. Juntas 1552 and 1562/1962) (see Appendix B4). The Thomas-Institut maintains a useful on-line database of editions and manuscripts.

Secondary sources. Anawati, *Bibliographie* (1978); Endress, "Averrois Opera" (1999); Rosemann, "Catalogue of Editions," (1988); Aertsen and Endress (eds.), *Averroes and the Aristotelian Tradition* (1999); Arnaldez, *Rationalist in Islam* (2000); Hayoun and de Libera (eds.), *Averroès et l'averroisme* (1991); Leaman, *Averroes* (1988); Urvoy, *Ibn Rushd* (1991); Wolfson, "Plan for the Publication" (1931), "Revised Plan" (1963); BCPMA (Taylor); EI (Arnaldez); HIP (Urvoy); REP (Leaman).

AVICEBRON, *see* Solomon ibn Gabirol.

AVICENNA (Abū ʿAlī al-Ḥusayn ibn ʿAbd Allāh ibn Sīnā) b. Afshana (Uzbekistan), 980; d. Isfahan, 1037. The leading figure of medieval Islamic philosophy and one of the greatest philosophers of any era. Avicenna is the Latinized form of Ibn Sīnā. A youthful

prodigy, according to the testimony of his autobiography (ed. and tr. Gohlman 1974), whose work eventually covered all aspects of learning, from philosophical treatises in the Aristotelian tradition (with a Neoplatonic influence) to medicine, natural science, and poetry. Principal philosophical work is the *Kitāb al-Shifāʾ* (*Book of the Healing*) [1020–7] (ed. Madkur and Zāyid 1983, etc.), which contains four parts (*jumal*): I. Logic (part. tr. Shehaby 1973); II. Natural Science; III. Mathematics; IV. Metaphysics (tr. Marmura 2005, with facing Arabic). The vast second *jumla*, known in Latin as the *Naturalia*, is further divided into eight sections (*funūn*), including the highly influential sections on physics (*fann* 1; known in Latin as the *Sufficientia*) and on the soul (*fann* 6) (ed. Rahman 1959). Among the many other surviving works are his classic medical treatise, the *Qānūn fī al-ṭibb* (*Canon of Medicine*) (ed. 1877/1970; Latin ed. 1507; part. tr. Gruner 1930/1999); the *Kitāb al-najāt* (*Book of Salvation [from Error]*) (ed. Dānishpāzhūh 1985; II.6 [on soul] tr. Rahman 1952); and the *Ishārāt wa-al-tanbīhāt* (*Remarks and Admonitions*) (ed. Forget 1892, Dunyā 1960; part. tr. Inati 1984, 1996; [Fr] tr. Goichon 1951), a philosophical summa in two parts: first logic, and second natural philosophy and metaphysics. Extensive excerpts from various works are translated in McGinnis and Reisman, *Classical Arabic Philosophy* (2007). The series *Avicenna latinus* has published much of the medieval Latin translation of the *Shifāʾ*, including the metaphysics (ed. Van Riet 1977–80) and the bulk of the *Naturalia*, including the *Sufficientia* (ed. Van Riet 1992) and the *Liber de anima* (ed. Van Riet 1968–72) (see Appendix B4).

Secondary sources. Janssens, *Annotated Bibliography* (1991), *First Supplement* (1999); Belo, *Chance and Determinism* (2007); Goodman, *Avicenna* (1992); Gutas, *Avicenna and the Aristotelian Tradition* (1988); Janssens, *Ibn Sina* (2006) [collected papers]; Janssens and De Smet (eds.), *Avicenna and his Heritage* (2002); Reisman and al-Rahīm (ed.), *Before and After Avicenna* (2003); Wisnovsky (ed.), *Aspects of Avicenna* (2001); Wisnovsky, *Avicenna's Metaphysics* (2003), "Avicenna and the Avicennian Tradition" (2005); BCPMA (Burrell); EI (Goichon); HIP (Inati, Nasr); REP (Kemal).

AZO (Azzo Portius, Soldanus) b. Bologna, *ca.* 1150; d. ca. 1230. Important legal scholar. Professor of civil law in Bologna from 1190. Author of the enormously influential *Summa Codicis*, a systematic summary of Justinian's code (ed. 1578/1966; excerpts tr. Maitland 1895/1978), supplemented by the *Apparatus ad Codicem* or *Lectura* (ed. 1577/1966).

Secondary sources. DBI (Fiorelli); CALMA.

AL-BAGHDĀDI (ʿAbd al-Laṭīf ibn al-Labbād) b. Baghdad, 1162/3; d. Baghdad, 1231/2. Wide-ranging scholar in medicine, mathematics, and philosophy. Studied in Baghdad; subsequently traveled widely throughout the Middle East, returning to his native city only shortly before his death. Principal extant philosophical work is the *Fī ʿilm mā baʿd al-ṭabīʿa* (*On the Science of Metaphysics*) (part. ed. and [German] tr. Neuwirth 1976).

Secondary sources. EI (Stern) [= BEIP (Leaman)].

AL-BAGHDĀDī (Abū al-Barakāt) b. Balad (near Mosul), *ca.* 1077; d. Baghdad, ca. 1166. Philosopher and physician. Born into a Jewish family; converted to Islam late in life. Famed in his life chiefly for his medical accomplishment, although his medical works, if any survive, have not been studied. Author of the voluminous *Kitāb al-muʿtabar* (*Book*

of Personal Reflection) (ed. 1938–9), a work modeled on Avicenna's *Shifāʾ*, ranging over logic, natural science, and metaphysics.

Secondary sources. Davidson, *On Intellect* (1992); Pines, *Studies* (1979); Strousma, "Maimonidean Controversy" (1993); DSB (Pines); EI (Pines); REP (Langermann).

BAHMANYĀR (Abū al-Ḥasan ibn al-Marzubān) b. Azerbaijan; d. 1067. Leading disciple of Avicenna. A Zoroastrian. Most important work is a lengthy exposition of Avicenna, his *Kitāb al-taḥṣīl* (*The Summation*) (ed. Mutahhari 1970; brief excerpt tr. Rowson, in Nasr and Aminrazavi, *Anthology* 1999). Also extant are his *Mā baʿd al-ṭabīʿa* (*Metaphysics*) and *Kitāb fī-marātib al-wujūd* (*On the Grades of Existence*) (both ed. and [German] tr. Poper 1851). Avicenna's *Kitāb al-mubāḥathāt* (*Discussions*) consists mainly in answers to questions raised by Bahmanyār.

Secondary sources. Janssens, "Faithful Disciple?" (2003), "Revision of Ibn Sīnā" (2007); Reisman, *Making of the Avicennan Tradition* (2002); BEIP (Kalin and Aminrazavi); EI (Rahman).

BAḤYA IBN PAQŪDĀ (ben Joseph ibn Pakuda) *fl.* Saragossa, mid-eleventh century. Founding figure of Jewish pietism. Rabbinic judge, probably the author of a collection of Hebrew hymns. Principal work is the *Al-Hidāya ʾilā farāʾiḍ al-qulūb* (*Guidance to the Duties of the Heart*) [1040] (ed. Yahuda 1912), translated initially into Hebrew (*Hovot ha-Levavot*) and then into all the major European languages (tr. Mansoor 1973).

Secondary sources. Eisenberg, "Reason and Emotion" (1981); Goodman, "Free Will" (1983); Vajda, "Dialogue" (1937), *Théologie ascetique* (1947); REP (Goodman); Sirat.

BALDUS DE UBALDIS b. Perugia, *ca.* 1327; d. Pavia, 1400. Roman lawyer and canonist. Studied law in Pisa. Lectured at Perugia from *ca.* 1351, with subsequent stints at Pisa, Florence, Padua, and Pavia. A practical legal theorist, whose theoretical views emerge from the large collection of *consilia* he produced regarding specific cases. Grounded the sovereignty of the commonwealth in the political authority of the people. Articulated an influential theory of just war. Principal works are the five volumes of *Consilia* (ed. 1575, etc.) and a large collection of commentaries on various legal texts (ed. 1599/2004, etc.).

Secondary sources. Canning, *Political Thought* (1987); Pennington, "Consilia" (1988); Wahl, "Foundations of the Nation-State" (1977); CALMA; CHLMP.

AL-BĀQILLĀNĪ (Muḥammad ibn al-Ṭayyib) b. Basra; d. 1013. Influential Ashʿarite theologian. Lived as an adult in Baghdad, serving for a time as judge. Among his extant works are the *Iʿjāz al-Qurʾān* (*The Uniqueness of the Quran*) (part. tr. von Grunebaum 1950) and the *Kitāb al-tamhīd* (*Book of Introduction*) (ed. McCarthy 1957).

Secondary source. EI (McCarthy).

BARLAAM THE CALABRIAN b. Seminara (Calabria), *ca.* 1290; d. Avignon (?), 1348. Byzantine theologian, philosopher, and mathematician. A monk in his youth, he moved to Constantinople in 1330, becoming *hegoumenos* of the Akataleptos monastery until 1341. Served as an ambassador in discussions with the Western Church. His involvement in

various theological controversies led to the condemnation of some of his writings, and he subsequently converted to Catholicism in 1342, becoming bishop of Gerace (Calabria) until his death. Extant work in Greek includes eight letters (ed. and [Ital] tr. Phyrigos, in *Dalla controversia* 2005), often with substantial philosophical content, especially the exchange with Gregory Palamas (ed. and [Ital] tr. Phyrigos 1975); a series of philosophically interesting anti-Latin works (ed. and [Ital] tr. Phyrigos 1998); the *Logistike*, concerning mathematics (ed. and [German] tr. Carelos 1996); and two treatises on solar eclipses (ed. and [Fr] tr. Mogenet *et al.* 1977). His only purely philosophical work known to be genuine is the *Solutions to the Questions Addressed by Georgios Lapithes* [*ca.* 1334] (ed. Sinkewicz 1981).

Secondary sources. Demetrakopoulos, "Further Evidence" (2003); Hogg, *Ethica secundum stoicos* (1997); Ierodiakonou, "Anti-Logical Movement" (2002); Sinkewicz, "Knowledge of God" (1982); ODB (Talbot).

BARTHOLOMAEUS ANGLICUS b. England before 1203; d. 1272. Encyclopedist. A Franciscan friar. Perhaps studied at Oxford. Arts master at Paris in 1224. Served as lector at Magdeburg in Saxonia from 1331. Provincial minister of Austria in 1247, then Bohemia before 1255 and Saxonia from 1262 to 1272. Famous for his encyclopedic *De proprietatibus rerum* [*ca.* 1245] (ed. 1601/1964; Bks. III–IV [soul and body] ed. Long 1979), in nineteen books, which circulated widely and was translated into many languages including English [1398] (tr. John Trevisa 1975–88).

Secondary sources. Seymour, *Bartholomaeus Anglicus* (1992); CALMA; DMA (Beyer de Ryke); ODNB (Seymour); Weijers.

BARTHOLOMEW OF BOLOGNA b. Bologna; d. after 1294. Franciscan theologian. Studied theology in Paris in the 1260s, apparently serving as regent master in the 1270s. Returned to Bologna in the 1280s, becoming provincial minister there in 1285. Extant works include a *Sentences* commentary (unedited), a *Tracatus de luce* (ed. Squadrani 1932), various disputed questions, including *De fide* (ed. Mückshoff 1940), and various sermons (unedited).

Secondary sources. Longpré, "Bartolommeo di Bologna" (1923); DBI; CALMA; FA; Glorieux.

BARTHOLOMEW OF BRUGES b. *ca.* 1286; d. 1356. Arts master and physician. Master of arts in Paris from 1307 to 1309. Studied medicine at Montpellier, becoming regent master in 1329. Extant works include questions on the *Physics*, *De anima*, *De generatione et corruptione*, and *Economics* (all unedited), a short commentary on Averroes's paraphrase of the *Poetics* (ed. Dahan 1980), and various sophismata/disputed questions (part. ed. in secondary sources).

Secondary sources. Ebbesen and Pinborg, "Sophisma on the Nature of Logic" (1981); Pattin, *Sens agens* (1988); Roos, "Die Kontroverse" (1974); CALMA; Weijers.

BARTHOLOMEW OF SALERNO *fl.* mid-twelfth century. Leading figure in the Salerno medical school. Author of the *Practica Bartholomaei* (ed. de Renzi, in *Collectio Salernitana*

IV [1856/1967]) and of commentaries on various Greek and Arabic medical texts (unedited).

Secondary sources. Jacquart, "Aristotelian Thought in Salerno" (1988); CALMA; Dronke.

BARTOLUS OF SASSOFERRATO (Saxoferrato) b. near Sassoferrato, 1313/14; d. Perugia, 1357. Famous civil lawyer, both in Italy and subsequently throughout Europe. Studied at Perugia and then Bologna. Professor at Pisa from 1339, and then Perugia from 1342, where Baldus was his student and then his colleague. His many works were prized for their practical character and clarity. Principal works are his various academic disputations or *Quaestiones* [1333–57], assorted commentaries or *Lecturae* [1339–52], and his advisory opinions or *Consilia*. These are printed separately in various Renaissance editions, and collected, more or less extensively, together with many falsely ascribed works, in various *Opera omnia* (ed. 1481–2 etc.). A modern edition is available of the *Tractatus testimoniorum* (ed. Lepsius 2003). Excerpts have been translated on conflicting laws (tr. Beale, in *Conflict of Laws* 1914/1979; tr. Clarence Smith, in "Bartolo" 1970) and just war (tr. Reichberg *et al.*, in *Ethics of War* 2006).

Secondary sources. Ryan, "Bartolus and Free Cities" (2000); Segoloni (ed.), *Bartolo da Sassoferrato* (1962); Sheedy, *Bartolus on Social Conditions* (1942); Woolf, *Bartolus of Sassoferrato* (1913); Ullmann, "Bartolus on Customary Law" (1940); CALMA; REP (Gordon).

BEDE b. Northumbria, 672/3; d. Jarrow, 735. Historian, theologian, poet, scientist. Placed in the Benedictine monastery at Wearmouth at age seven; spent his life there and at the sister monastery of Jarrow. Most famous for his history of England [731], but also important for his biblical commentaries (excerpts tr. Holder and Foley 1999), his treatises *De natura rerum* and *De temporum ratione* (tr. Wallis 1999), and various grammar handbooks. His works are published in the *Corpus Christianorum*.

Secondary sources. Brown, *Bede, the Venerable* (1987), *Bede the Educator* (1996); DeGregorio (ed.), *Innovation and Tradition* (2006); Germann, *De temporum ratione* (2006); Ward, *The Venerable Bede* (1990); CALMA; ODNB (Campbell).

BERENGAR OF TOURS b. Tours, *ca.* 1000; d. Tours, *ca.* 1088. Theologian, famous for his controversial teachings on the Eucharist. Studied at Chartres under Fulbert, eventually becoming master of the school of St. Martin in Tours. Controversy over his Eucharistic views – particularly his claim that no material change is necessary for Christ to be present in the host – began in 1049–54 and flared up twice more in 1059 and 1079. His principal extant work is a response to his critic Lanfranc of Bec, the *Rescriptum contra Lanfrancum* [1059] (ed. Huygens 1988); much of his position is inferred from works written against him.

Secondary sources. Chadwick, "Ego Berengarius" (1989); de Montclos, *Lanfranc et Bérenger* (1971); Holopainen, *Dialectic and Theology* (1996); Liebeschütz, "Debate on Philosophical Learning" (1970); CALMA; DMA (Brouwer).

BERNARD OF AREZZO (Bernardus Aretinus) b. Tuscany; d. 1342. Franciscan theologian. Lectured on the *Sentences* in Paris, *ca.* 1335. None of his writings is extant; his views are known only through two notorious letters (and fragments of seven more) written to him by Nicholas of Autrecourt [1335/7] (ed. and tr. de Rijk 1994). Although overshadowed by Nicholas, Bernard's views are themselves interesting for their skeptical tendencies.

Secondary sources. Kaluza, *Nicolas d'Autrécourt* (1995); Tachau, *Vision and Certitude* (1988).

BERNARD OF AUVERGNE b. Gannat (Auvergne); d. after 1307. Dominican theologian. Bachelor of theology at Paris, *ca.* 1294–7, perhaps becoming master. His principal works are his defenses of Aquinas against Henry of Ghent, James of Viterbo (both unedited), and Godfrey of Fontaines (part. ed. Stella, in "Teologi e teologia" 1957) [all dating 1298/1315]. Also extant is a brief commentary on Bk. I of the *Sentences* commentary (unedited), of uncertain attribution.

Secondary sources. Friedman, "Dominican Quodlibetal Literature" (2007); Pattin, "La structure de l'être" (1962); Zuckerman, "Some Texts on Papal Power" (1982); CALMA; Kaeppeli; Roensch.

BERNARD OF CHARTRES (Bernardus Carnotensis) b. Brittany; d. *ca.* 1130. Influential teacher. Master at the cathedral school of Chartres before 1117; subsequently chancellor. Perhaps the elder brother of Thierry of Chartres. Only extant work is a commentary on the *Timaeus* (ed. Dutton 1991).

Secondary sources. CALMA; Dronke; DSB (Jeauneau).

BERNARD OF CLAIRVAUX b. Fontaines-les-Dijon, 1090; d. Clairvaux, 1153. Mystic and leading spiritual authority of the twelfth century, deeply influential on the character of monastic life and on wider developments in philosophy and theology. Studied at Châtillon. Joined the Cistercian order at Cîteaux in 1113, and two years later was named abbot of the new monastery at Clairvaux, a position he held until his death, despite many opportunities for ecclesiastical advancement. Traveled widely, preaching throughout Western Europe. Involved in disputes with Peter Abaelard (1140) and Gilbert of Poitiers (1147–8). His own theology was conservative, firmly rooted in authority, eschewing philosophical subtleties. Most of his writings – sermons and treatises – focus on a moral and contemplative reading of Scripture, as in his long, unfinished *Sermones super Cantica canticorum* [1135–53]. His most influential philosophical work is the *De gratia et libero arbitrio* [*ca.* 1127]; his *De consideratione* [his last work, *ca.* 1148] influenced later medieval political thought. A modern edition of his complete works is available (ed. Leclerq *et al.* 1957–77, 8 vols.), as are translations of many of his writings.

Secondary sources. Association Bourguignonne, *Saint Bernard théologien* (1956); Brague (ed.), *Saint Bernard* (1993); Casey, *Thirst for God* (1988); Doyle, *Bernard of Clairvaux and the Schools* (2005); Elm (ed.), *Bernhard von Clairvaux* (1994); Evans, *Mind of St. Bernard* (1983), *Bernard of Clairvaux* (2000); Gilson, *The Mystical Theology* (1940); Leclercq, *Monks and Love* (1979); McGuire, *The Difficult Saint* (1991); BCPMA (McGuire); CALMA; REP (Murphy).

BERNARD LOMBARDI *fl.* 1323–32. Dominican theologian. Lectured on the *Sentences* in Paris in 1327–8, defending a broadly Thomistic line. His commentary on all four books is extant in six mss., in several redactions (unedited). Probably regent master in 1331–2, from when survives a *Quodlibet* (unedited).

Secondary sources. Koch, *Durandus de S. Porciano* (1927); Porebski, "La question" (1973); CALMA; Kaeppeli.

BERNARD SILVESTRIS b. *ca.* 1100; d. *ca.* 1160. Teacher, poet, Platonist. Taught at the cathedral school at Tours. Principal work is a prose-poem on creation and providence, the *Cosmographia* [1147] (ed. Dronke 1978; tr. Wetherbee 1973). Also extant is a long poem concerned with fate, the *Mathematicus* [*ca.* 1150] (ed. and tr. Stone 1996). Perhaps also by Bernard are two earlier commentaries, on the *Aeneid* [*ca.* 1125/30] (ed. Jones and Jones 1977; tr. Schreiber and Maresca 1979) and on Martianus Capella's *De nuptiis* [*ca.* 1130/5] (ed. Westra 1986).

Secondary sources. Stock, *Myth and Science* (1972); CALMA; DMA (Ricklin); Dronke.

BERNARD OF TRILIA b. Nimes, *ca.* 1240; d. Avignon, 1292. Thomistic theologian. Entered the Dominican order as a young man and studied in Paris *ca.* 1260/5. Lectured at various Dominican houses of study in southern France before returning to Paris in 1279 to lecture on the *Sentences* in 1281–3 (commentary not extant), becoming master from 1283 to 1286. Extant works include several disputed questions, including sets on the soul's cognition when separated from body [*ca.* 1285] (ed. Künzle 1969) and when joined to body (part. ed. Goris, in *Kritik* 1998), three *Quodlibeta* (part. ed. André, in "Les *Quodlibeta*" 1921), and various biblical commentaries.

Secondary sources. Friedman, "Dominican Quodlibetal Literature" (2007); CALMA; DMA; Kaeppeli; Roensch; Weijers.

BERNARDINO OF SIENA b. Massa (Tuscany), 1380; d. Aquila, 1444. Popular preacher and moralist. Joined the Franciscan order in 1402. Famous for his preaching tours throughout north and central Italy. Accused of heresy in 1423, but subsequently acquitted. Canonized as saint in 1450. His sermons and treatises have been edited in a modern nine-volume edition (ed. 1950–65).

Secondary sources. Origo, *World of San Bernardino* (1962); McAodha, "The Nature and Efficacy of Preaching" (1967); Mormando, *The Preacher's Demons* (1999); Thureau-Dangin, *Un prédicateur populaire* (1926); CALMA; DBI (Manselli).

BERTHOLD OF MOOSBURG b. *ca.* 1300; d. after 1361. German Dominican. Taught between 1335 and 1361 at the Dominican *studium* in Cologne, succeeding Eckhart as its head. Advocated a Platonism drawn from Proclus, in preference to Aristotelianism. Sole surviving work is a vast commentary on Proclus's *Elements of Theology* (ed. Pagnoni-Sturlese and Sturlese 1984–, 9 vols.), the only such commentary known from the Middle Ages.

Secondary sources. De Libera, *Introduction à la mystique rhénane* (1984); Iremadze, *Konzeptionen des Denkens im Neuplatonismus* (2004); BCPMA (Milem); CALMA; Kaeppeli; Lohr.

BESSARION b. Trebizond; d. Ravenna, 1472. Cardinal, theologian, translator. Educated in Constantinople and Mistra, becoming a monk in 1423 and subsequently *hegoumenos* of the monastery of St. Basil in Constantinople. Appointed metropolitan of Nicaea in 1437. Converted to Catholicism in 1439; elected cardinal that same year. After a trip to Greece in 1439–40, he spent the rest of his career in Italy. Led a circle in Rome devoted to Greek–Latin and Latin–Greek translations (see Appendix B5). His monumental *In calumniatorem Platonis* [1469] (ed. Mohler, in *Kardinal Bessarion* 1923–42/1967) defended Plato against the attacks of George Trapezountios. Other writings are edited in PG 161.

Secondary sources. Mohler, *Kardinal Bessarion* (1923–42/1967); Monfasani, *Byzantine Scholars* (1995); Moraux, *D'Aristote à Bessarion* (1970); ODB (Talbot).

AL-BIṬRŪJĪ, Nūr al-Dīn Abū Isḥāq (Alpetragius) b. Morocco; d. Seville, *ca.* 1204. Influential astronomer, author of the *Kitāb al-hay'a* (*De motibus coelorum*), which would be translated into Latin and Hebrew (ed. [Latin] Carmody 1952).

Secondary source. EI (Vernet).

BLASIUS OF PARMA (Pelacanus, de Pelacanis, Biagio Pelacanbii) b. Parma, *ca.* 1345; d. Parma, 1416. Heterodox philosopher whose views often pushed the limits of medieval tolerance. Received his doctorate from Pavia *ca.* 1374, spent time in Paris, taught all across the arts curriculum in Bologna, Padua, Pavia, and Florence. Reprimanded by the bishop of Pavia in 1396, without evident impact on his career, although his subsequent works are more cautious. Popularized the logic of Ockham and William Heytesbury, as well as the natural philosophy of John Buridan and Albert of Saxony. Most notoriously, he argued for the materiality and mortality of the human soul. His focus in natural philosophy is quantitative, after the Oxford Calculators. Many works survive, including two works on the soul [1382; 1385] (both ed. Federici Vescovini 1974), two redactions of the *Physics* [1382/8; 1397] (unedited), various works on logic, including a set of questions on Paul of Spain (ed. Biard and Federici Vescovini 2001), and works on quantitative natural philosophy, including questions on Bradwardine's *Tractatus proportionum* (ed. Biard and Rommevaux 2006) and a *quaestio* on the intension and remission of forms (ed. Federici Vescovini 1994).

Secondary sources. Barocelli, "Per Biagio Pelacani" (1992) [bibliography]; Federici Vescovini, *Astrologia e scienza* (1979); Federici Vescovini (ed.), *Filosofia, scienza e astrologia* (1992); CALMA; DMA (Biard); REP (Federici Vescovini); Weijers.

BOETHIUS OF DACIA (Dacus) b. Denmark, *ca.* 1240; d. after 1277. A leading arts master at Paris in the late thirteenth century and a key figure among the "Radical Aristotelians," so-called because of their aggressive defense of various philosophical theses, seemingly at the expense of Church doctrine. He was in Paris from 1262, teaching in the arts faculty there from as early as 1265 until *ca.* 1277, when he was one of the main targets of Stephen Tempier's condemnation. All his works are prior to this date. Subsequently seems to have left the arts faculty, perhaps joining the Dominican order. Treatises on the eternity of the world and on human happiness (both tr. Wippel 1987) were especially controversial. A leading figure among the speculative grammarians for his works on logic and language, including sets of questions on the *Topics* and on Priscian (tr. Senape

McDermott 1980), and a collection of sophismata (part. tr. CTMPT I). The complete works are available in a modern edition (ed. J. Pinborg *et al.* 1969–).

Secondary sources. Ebbesen, "Science is a Serious Game" (2000); Pinborg, *Medieval Semantics* (1984); BCPMA (Bazán); CALMA; DMA (de Libera); Kaeppeli; REP (Ebbesen); Weijers.

BONAVENTURE (John of Fidanza) b. near Orvieto, *ca.* 1217; d. Lyon, 1274. Franciscan theologian and the most eminent counterweight to the prevailing Aristotelian tendencies of the scholastic era. Studied in Paris from 1235, where he was master of arts *ca.* 1243. Joined the Franciscan order in 1243/4, and after four years of study began to lecture and hold disputations [1248–54]. Served as master of theology from 1254 to 1257, at which time he was elected minister general of the Franciscan order. His remaining years were largely occupied with administrative duties, culminating in his appointment as cardinal in 1273. His writings from after 1257, which are strikingly unscholastic in style, are focused on moral and spiritual questions, and are often hostile to the Aristotelianism of the universities.

Principal academic works are his lengthy *Sentences* commentary [1250–2] ("Conscience and synderesis" [II.39] tr. CTMPT II; part. tr. *The Franciscan Archive*: www.franciscan–archive.org/bonaventura/sent.html) and three sets of disputed questions: *De scientia Christi* [*ca.* 1254] (tr. Hayes 1992); *De mysterio Trinitatis* [*ca.* 1257] (tr. Hayes 1979), and *De perfectione evangelica*, a defense of the mendicant orders. His most-read works are various shorter, less technical opuscula, above all the *Itinerarium mentis in Deum* [1259] (tr. Boehner 1993), and also the *De reductione artium ad theologiam* (tr. Hayes 1996), the *Breviloquium* (tr. de Vinck 1960–70), and his sermon *Unus est magister vester Christus* (tr. CTMPT III) (the last three from his years as master of theology). The major work from the end of his life is the *Collationes in Hexaemeron* [1273]. The complete works are available in a modern edition (ed. 1882–1902).

Secondary sources. Bougerol, *Introduction* (1st edn tr. 1964; 2nd edn 1988); Emery, "Bonaventure's Doctrine of the Cardinal Virtues" (1983); Gilson, *Philosophy of Bonaventure* (tr. 1965); Quinn, *Historical Constitution* (1973); Speer, "Bonaventure and the Question of a Medieval Philosophy" (1997); BCPMA (Speer); CALMA; DBI (Gregory); REP (Kent); SEP (Noone and Houser).

BRUNETTO LATINI b. Florence, *ca.* 1220; d. Florence, 1294. Encyclopedist and rhetorician. A prominent political figure in Florence and an important influence on Dante. Exiled in France from 1260 to 1266, he wrote during this period an Italian treatise on rhetoric based on Cicero (ed. Maggini 1915); an incomplete didactic poem *Il Tesoretto* (ed. and tr. Holloway 1981); and in French his encyclopedic three-book *Li livres dou Tresor* (ed. Carmody 1948/1975 etc.).

Secondary sources. Holloway, *Brunetto Latini* (1986), *Twice-Told Tales* (1993); DMA (Connochie).

BULGARUS b. Bologna; d. after 1159. Leading scholar of Roman law. Active teaching in Bologna by 1141. Principal work is *De regulis iuris* (ed. Beckhaus 1856/1967).

Secondary sources. Kantorowicz and Buckland, *Studies in the Glossators* (1938); CALMA; DBI (Paradisi).

BURCHARD OF WORMS b. *ca.* 950; d. 1025. Legal authority. Educated in Koblenz (Rhineland), eventually becoming bishop of Worms. Compiled an important collection of canon law, the *Decretum* or *Brocardus* [1008–11], which would remain authoritative until Gratian. His works are edited in PL 140.

Secondary sources. BBK (Bautz); CALMA.

BURGUNDIO OF PISA b. Pisa, *ca.* 1110; d. 1193. Jurist, physician, translator. Served as ambassador from Pisa to Constantinople. Known for his translations from Greek (see Appendices B1-2), including John of Damascus's *De fide orthodoxa* [1154/5] (ed. Buytaert 1955) and Nemesius of Emesa's *De natura hominis* [1165] (ed. Verbeke and Moncho 1975), as well as various patristic texts, medical treatises by Galen and others, and most likely translations of Aristotle's *De generatione et corruptione* and parts of the *Ethics*.

Secondary sources. Bossier, "L'élaboration du vocabulaire philosophique" (1997); Classen, *Burgundio von Pisa* (1974); Vuillemin-Diem and Rashed, "Burgundio de Pise" (1997); CALMA; DBI (Liotta); DMA (Bonmariage); Dronke.

CAJETAN OF THIENE (Gaetano, Caietanus) b. Gaeta, 1387; d. Padua, 1465. Italian natural philosopher. Student of Paul of Venice, and his successor as professor of philosophy – first logic, then natural philosophy – at Padua from 1422 until 1462. Not to be confused with the later saint by the same name, or with the Renaissance Thomistic theologian Cardinal Cajetan (Thomas de Vio). His influence can be gauged from the many Renaissance editions of his work. These include Aristotelian commentaries – on the *Physics* [1439] (ed. 1476, etc.), the *De caelo* (ed. 1476, etc.), the *Meteora* (ed. 1476, etc.) and the *De anima* (ed. 1475, etc.) – as well as treatises on William Heytesbury's *Regulae* and *Sophismata* (ed. 1494) and on the intention and remission of forms (ed. 1491).

Secondary sources. Silvestro da Valsanzibio, *Vita e dottrina* (1949); Bottin, "Gaetano da Thiene e i 'calculatores'" (1983); BCPMA (Lahey); CALMA; CHLMP; Lohr.

CAMBIOLUS OF BOLOGNA *fl.* 1330s. Arts master at the University of Bologna. Regarded as an Averroist. His extant works consist in five relatively long disputed questions on natural philosophy (ed. Kuksewicz, in *Averroïsme bolonais* 1965).

Secondary source. CALMA.

CANDIDUS WIZO (Hwita) b. England, prob. before 770; *fl.* 793–803. Early medieval theologian. A student of Alcuin, he journeyed to the continent in 793, eventually becoming part of Charlemagne's court circle. Extant works include *De passione domini* (PL 106) and perhaps several other theological works from the Carolingian circle (ed. Marenbon, in *Circle of Alcuin* 1981).

Secondary sources. CALMA; ODNB (Marenbon).

CATHERINE OF SIENA (Benincasa) b. Siena, 1347; d. Rome, 1380. Mystic and Church reformer, canonized in 1461. Joined the Dominican tertiaries at age seventeen, living

a life of extreme asceticism and serving the poor and sick. Entered the political sphere in her last decade, actively campaigning for Church reform and an end to the papal schism. Extensive correspondence from this period survives (ed. Misciattelli and Tommaseo 1913–22; tr. Noffke 2000–). Her most important work, based on her mystical experiences, is the *Libro della divina dottrina* or *Dialog* (ed. Fiorilli and Caramella 1928; tr. Noffke 1980). Raymond of Capua, a devoted disciple and later Dominican minister general, recounts her life in the *Legenda maior* (ed. Jungmayr 2004; tr. Kearns 1980).

Secondary sources. Luongo, *Saintly Politics* (2006); Undset, *Catherine of Siena* (1954); CALMA; DBI (Dupré Theseider); DMA (Mornet).

CHRISTINE DE PIZAN b. Venice, 1364; d. Poissy (Paris), *ca.* 1430. Poet, moralist, political essayist. Lived in France from a young age, in the circle of the French court. A widow with three children at twenty-five, she came to support herself by writing. Among her most philosophically significant works are the *Livre de la cité des dames* [1404] (ed. Hicks and Moreau 1986; tr. Richards 1982); *Le livre des trois vertus* [1405] (ed. Willard and Hicks 1989; tr. Lawson 1985); and the *Livre du corps de policie* [1407] (ed. Kennedy 1998; tr. Forhan 1994). Various anthologies of her work are also available (tr. Willard 1994, Blumenfeld-Kosinski 1997).

Secondary sources. Kennedy, *Bibliographical Guide* (1984); Birk, *Biblical Wisdom* (2005); Forhan, *Political Theory* (2002); Richards (ed.), *Reinterpreting Christine de Pizan* (1992); Willard, *Christine de Pizan* (1984); CALMA; DBI (Tilliette); DMA (Dulac).

CLAREMBALD OF ARRAS b. *ca.* 1110; d. *ca.* 1187. Teacher and philosophical commentator. Studied under Hugh of St. Victor and Thierry of Chartres, probably at Paris. Served as provost and archdeacon in Arras, and later as chaplain in Laon. Author of commentaries on Boethius's *De trinitate* and *De hebdomadibus*, both *ca.* 1157–8 (tr. George and Fortin 2002; ed. Häring 1965), and a *Tractatulus super librum Genesis* [1160/70] (ed. Häring 1965) that serves as a sequel to Thierry's *De sex dierum operibus*.

Secondary sources. Fortin, *Boethian Commentator* (1995); Häring, "Creation and Creator" (1955); CALMA; DMA (Brouwer); Dronke; REP (Brown).

CONSTANTINE THE AFRICAN b. Tunis; d. Monte Cassino, 1087. Important translator of Arabic medical texts. Studied medicine in Tunis, then settled in Italy and converted to Christianity. Later entered the Benedictine monastery of Monte Cassino. Most influential of the many texts he translated was ʿAlī ibn al-ʿAbbās al-Majūsī's *Kitāb kāmil al-ṣināʿa al-ṭibbīyya* (*The Complete Book of the Medical Art*), which Constantine entitled the *Pantegni* (ed. 1515).

Secondary sources. Burnett and Jacquart (eds.), *Constantine the African* (1994).

COSTA BEN LUCA, *see* Quṣta ibn Lūqā.

DANIEL OF MORLEY b. Norfolk, *ca.* 1140; d. *ca.* 1210. Champion of Islamic thought. Studied in Oxford and Paris. Traveled to Toledo, where he studied Arabic philosophy and science with Gerard of Cremona. Returned to England *ca.* 1187, bringing this

new learning with him. Sole extant work is the *Philosophia*, or *De naturis inferiorum et superiorum* [before 1187] (ed. Maurach 1979).

Secondary sources. Burnett, *Introduction of Arabic Learning* (1997); Silverstein, "Daniel of Morley" (1948); DMA (Beyer de Ryke); Dronke; ODNB (Burnett).

DANTE ALIGHIERI b. Florence, 1265; d. Ravenna, 1321. Italian poet who found consolation in philosophy after the death of his beloved Beatrice. A prominent member of the ruling class in Florence, forced into exile by political events in 1302. Although outside both academia and religious orders, Dante was keenly interested in philosophy and was particularly influenced by the work of Aquinas. His major poems, most famously the epic *Divine Comedy*, are infused with philosophical ideas. Also produced a series of explicitly philosophical (although non-technical) works, most importantly the *Convivio* [1304–7] (tr. Lansing 1990, etc.), an extended reflection on the value of philosophy, and the *De monarchia* [*ca.* 1318] (ed. and tr. Shaw 1995, etc.), a defense of absolute monarchy that gives voice to his disenchantment with the republicanism of Florence. These and other philosophical works are edited, with commentary, in the *Opere minori* (ed. Vasoli et al. 1979–84).

Secondary sources. Boyde, *Dante Philomythes and Philosopher* (1981), *Perception and Passion in Dante's Comedy* (1993), *Human Vices and Human Worth in Dante's Comedy* (2000); Cassell, *The Monarchia Controversy* (2004); Gilson, *Dante and Philosophy* (tr. 1949); Imbach, *Dante* (1996); Minio-Paluello, "Dante's Reading of Aristotle" (1980); Moevs, *The Metaphysics of Dante's Comedy* (2005); Nardi, *Saggi di filosofia Dantesca* (1967), *Dante e la cultura medievale* (1985); BCPMA (Noone); DBI (D'Addario); REP (Perler); SEP (Wetherbee).

DAVID OF DINANT b. Dinant (Belgium); d. *ca.* 1214. Physician and philosopher, censured for his interpretation of Aristotle. Probably master of arts at Paris. Translated many Aristotelian texts from the Greek, manuscripts of which he discovered while traveling in Greece. Served as chaplain to Innocent III *ca.* 1206. Condemned for heresy by a Parisian synod in 1210 for his pantheistic view that matter, intellect, and God are really identical. All that remains of his writings are fragments from his lectures in Paris, known as the *Quaternuli* (ed. Kurdziałek 1963, Casadei 2008).

Secondary sources. Maccagnolo, "Beginning of Aristotelianism" (1988); Vuillemin-Diem, "Aristoteles Latinus" (2003); DMA (Casadei); Dronke; Weijers.

DĀWŪD IBN KHALAF b. Kufa (Iraq), 815/18; d. Baghdad, 884. Founder of the Zāhiriyya school of religious law, which insists on a literal reading of the Quran, against the imposition of any rational analysis. Although numerous works are attested, none are extant.

Secondary source. EI (Schacht).

DĀWŪD IBN MARWĀN (al-Muqammiṣ) b. Raqqa (Syria); *fl.* ninth century. Early Judaeo-Arabic philosopher and theologian. A prolific author, most of whose work has been lost. Converted to Christianity and subsequently back to Judaism. Authored several

anti-Christian polemics, surviving only in fragments. His extant philosophical work is the ʿ*Ishrūn maqāla* (*Twenty Chapters*) (ed. and tr. Stroumsa 1989).

Secondary source. REP (Stroumsa).

DEMETRIOS KYDONES b. Thessaloniki, 1320/5; d. Crete, 1397/8. Scholar and translator. Deprived of his family's wealth by a political uprising in 1345, he entered into political service in Constantinople. Translated many Latin works into Greek (see Appendix B5), particularly Thomas Aquinas, which propelled the rise of Thomism in Byzantium. Defended Latin Aristotelianism, using it to attack the theology of Gregory Palamas. An advocate for unity with Rome (see tr. Likoudis 1983); converted to Catholicism in 1357. A large body of correspondence is extant (ed. Loenertz 1956–60; tr. [German] Tinnefeld 1981–2003), as is an essay on *The Disdain for Death* (ed. Deckelmann 1901). Various pro-Latin apologetics and anti-Palamite treatises are also extant (PG 154 [some works here are spurious]). His younger brother Prochoros Kydones was also an active translator and advocate of Latin thought.

Secondary sources. Kianka, *Demetrius Cydones* (1981); Demetracopoulos, "Translation of the *Summa theologiae*" (1982); BBK (Todt); ODB (Kianka).

DENYS THE CARTHUSIAN (Dionysius, de Leeuwis) b. Rijkel (Belgium), 1402/3; d. 1472. Encyclopedic scholar and leading Albertist. Studied at the University of Cologne from 1421, becoming master of arts in 1424. Subsequently entered the Carthusian monastery at Roermond, where he spent most of the remainder of his life. His voluminous writings (ed. 1896–1935, in 43 vols.) include commentaries on the whole Bible, on Boethius, pseudo-Dionysius, Aquinas, Lombard's *Sentences*, as well as various compendia of his own philosophical and theological views, and over 900 sermons. Among his most important philosophical works are his *De lumine christianae theoriae* [*ca.* 1451] and *Elementatio philosophica* [*ca.* 1465]. An edition of *Opera selecta* is underway (ed. Emery 1991–).

Secondary sources. Palazzo, "Ulrich of Strasbourg and Denys the Carthusian" (2004–6); Wassermann, *Dionysius der Kartäuser* (1996); BCPMA (Emery); REP (Emery).

DIETRICH OF FREIBERG (Theodoric, Thierry, Theodoricus Teutonicus, of Saxony) b. Freiberg, *ca.* 1250; d. after 1310. Dominican scholar, active in natural philosophy, metaphysics, and theology. Friar from an early age; taught at the Dominican convent in Freiberg *ca.* 1271. Studied in Paris, probably 1272–4, and after time in Germany returned to Paris to lecture on the *Sentences*, beginning in 1281. Returned to Germany, probably in 1293, as prior in Würzburg, and then as provincial superior of the German province. Returned again to Paris as master of theology from 1296/7 to 1300. His surviving works (ed. Flasch 1977–85 in 4 vols.) take the form of treatises rather than disputed questions or commentaries. Although inspired by Albert the Great and Aquinas, Dietrich's work is highly original. His treatises in natural philosophy – *De luce*, *De coloribus*, and *De iride* (part. tr. Wallace and Grant 1974) – have been extensively studied by historians of science, with the last of these containing the first known correct optical account of the rainbow. In metaphysics, his most important works are *De ente et essentia*, *De quiditatibus entium* (tr. Maurer, in "The *De quidditatibus*" 1956), *De intellectu et intelligibili* (tr. Führer 1992), and *De accidentibus*.

Secondary sources. Kandler *et al.* (eds.), *Dietrich von Freiberg* (1999); Flasch (ed.), *Von Meister Dietrich zu Meister Eckhart* (1987); Sturlese, *Dokumente und Forschungen zu Leben und Werke* (1984); Wallace, *Scientific Methodology* (1959); BCPMA (Teske); DMA (Suarez-Nani); DSB (Wallace); Kaeppeli; REP (Somerset); SEP (Führer).

ḌIRĀR IBN ʿAMR b. *ca.* 728; d. 815. Muʿtazilī theologian. Of Arab extraction. A student of Wāṣil ibn ʿAṭā. Taught in Basra, then Baghdad. A prolific and influential author, but none of his works is extant.

Secondary sources. van Ess, "Ḍirār b. ʿAmr" (1967–8); EI (van Ess).

DOMINICUS GUNDISALVI (Gundissalinus, Domingo González) *fl.* 1162–90. Translator and philosopher active in Toledo. Archdeacon of Cuéllar, and canon of the cathedral at Segovia and later Toledo. An important bridge between Islamic and Christian thought, both through translations of important Arabic treatises and through new works grounded in Islamic philosophy. Credited with translations of Solomon ibn Gabirol's *Fons vitae*, al-Ghazālī's *Intentions of the Philosophers* (*Summa theoricae philosophiae*), and Avicenna's *Metaphysics*, as well as various works by al-Fārābī and others (see Appendix B4). His philosophical treatises, largely syntheses of the works of others, include *De unitate* (ed. Correns 1891), *De scientiis* (ed. Alonso Alonso 1954), *De processione mundi* (ed. Bülow 1925; tr. Laumakis 2002), *De anima* (ed. Muckle 1940), and *De divisione philosophiae* (ed. Baur 1903). A recent suggestion that translator and philosopher are different men has not been generally accepted (see Rucquoi, "Gundisalvus ou Dominicus Gundisalvi" 1999, and the response by Fidora and Soto Bruna, "Algunas observaciones" 2001).

Secondary sources. Burnett, "Arabic into Latin" (2005); Fidora, *Wissenschaftstheorie* (2003); Jolivet, "Arabic Inheritance" (1988); BCPMA (Houser); DMA (Caiazzo); DSB (Kren).

DŪNASH IBN TĀMĪM (Abū Sahl) b. North Africa, *ca.* 900; d. *ca.* 960. Scientist, philologist, theologian. Student of Isaac Israeli. Author of a commentary on the Kabbalistic *Sefer Yesira* (*Book of Creation*) [955–6] (ed. and [Fr] tr. Vajda and Fenton 2002). Also known to have studied Hebrew and Arabic philology.

Secondary source. Sirat.

DURAND OF ST. POURÇAIN b. 1270/5; d. Meaux, 1334. Controversial Dominican theologian. Entered the Dominican order at Clermont. Studied at Paris, lecturing on the *Sentences* there, probably in 1307–8. Master of theology in 1312–13. Taught at the papal curia in Avignon between 1313 and 1317; subsequently appointed to a series of bishoprics. His principal and most controversial work is his *Sentences* commentary, in three versions. The first, stemming from lectures at a provincial Dominican *studium*, dates from 1304–7 (unedited). In response to criticism for departing from the teachings of Aquinas, Durand composed a second version in 1310–11 (unedited). Despite adhering more closely to Aquinas, this met with further criticisms and led to two formal investigations [1313–14, 1316/17]. These processes eventually gave rise to the third and best-known version [1317/27] (ed. 1571/1964, etc.; digital repr. on web at Thomas-Institut), in which Durand returned to many of his original views. Other extant works include five

Quodlibeta [1312–16] (ed. Stella 1965, Takada 1968) and questions *De habitibus* [prob. 1312–13] (ed. Koch 1930).

Secondary sources. Fumagalli Beonio Brocchieri, *Durando di S. Porziano* (1969); Emery, "Dieu, la foi et la théologie" (1999); Iribarren, *Durandus of St. Pourçain* (2005); Koch, *Durandus de S. Porciano* (1927); Lowe, *Contested Theological Authority* (2003); BCPMA (Friedman); DMA (Emery); Kaeppeli; REP (Fumagalli Beonio Brocchieri); Weijers.

DURANDELLUS (Nicholas Medensis) *fl.* 1320s. Author of a Thomistic critique of Durand of St. Pourçain, the *Evidentiae contra Durandum* [*ca.* 1325–6] (ed. Stella 2003).

Secondary source. Emery, "La théologie trinitaire" (1997).

ECKHART OF HOCHHEIM (Meister Eckhart) b. Hochheim (Thuringia) *ca.* 1260; d. prob. Avignon, 1328. Controversial scholastic philosopher, theologian, and mystic. Entered the Dominican order at a young age. Educated first at Cologne and then Paris from 1286. Prior of the Dominican convent at Erfurt from 1294 to 1298; subsequently master of theology at Paris in 1302–3. Provincial minister of the new Saxony province from 1303–11. Served as regent master for an exceptional second term in Paris in 1311–13; spent the following decade in Strasbourg, where he was active as a preacher. Returned to Cologne in 1324, where his views gave rise to an inquisition on suspicions of quietism and pantheism that culminated, after his death, in a papal bull [1329] condemning seventeen theses as heretical and another eleven as suspect of heresy. Long known for his German sermons and treatises, which are heavily influenced by Neoplatonic views of the intellect and reflect his more mystical side. His Latin works, discovered only in 1886, depict him as a more conventional academic philosopher. Most important of these is the incomplete *Opus tripartitum* [begun in 1305]. His most influential German work is *Das Buch der göttlichen Tröstung* [*ca.* 1315]. A critical edition of both the German and Latin works (ed. 1936–) is nearly complete.

Secondary sources. Largier, *Bibliographie* (1989); Albert, *These vom Sein* (1976); Davies, *Meister Eckhart* (1991); de Libera, *Introduction à la Mystique rhénane* (1984); Goris, *Einheit als Prinzip und Ziel* (1997); McGinn, *Mystical Thought* (2001); Mojsisch, *Meister Eckhart* (2001); BCPMA (Aertsen); DMA (de Libera); Kaeppeli; REP (Aertsen); SEP (Mojsisch and Summerell).

EDWARD UPTON b. Winchester; d. 1418/19. Logician. Studied the arts and theology at Oxford. Principal of St. Edmund Hall, 1384–90; subsequently associated with Exeter and University colleges. Ordained subdeacon in 1400, he was enlisted in the cause of combatting Wycliffism in the last decades of his life. Extant works are a *De probationibus propositionum* (ed. de Rijk, in *Some 14th Century Tracts* 1982), a *De actione interiori elementorum simplicium*, and two brief logical treatises (all unedited).

Secondary sources. Ashworth and Spade, "Logic in Late Medieval Oxford" (1992); Emden; ODNB (Lahey).

EUSTACHIUS OF ARRAS (Atrebatensis, Eustace) b. Arras (northern France) *ca.* 1225; d. 1291. Franciscan theologian. Student at Paris of Bonaventure and Gilbert of Tournai,

whom he succeeded as regent master of theology (1263–6). Elected bishop of Coutances in 1282. Extant works (mostly unedited) include fragments of a *Sentences* commentary, three *Quodlibeta*, and a great many disputed questions, including a set on the eternity of the world (ed. Dales and Argerami 1986–7).

Secondary sources. Glorieux, "Maîtres franciscains" (1930); Putallaz, *Figures franciscaines* (1997); FA.

EUSTRATIOS OF NICAEA b. *ca.* 1050; d. *ca.* 1120. Philospher and theologian. A student of John Italos, he escaped Italos's condemnation to become metropolitan of Nicaea. A later condemnation in 1117 was lifted only after his death. His writings insist on the importance of philosophy for theology, and take a nominalistic position on the problem of universals. Extant works include commentaries on the *Nicomachean Ethics* (ed. Heylbut 1892; Bks. I and VI tr. [Latin] Robert Grosseteste [ed. Mercken 1973, Trizio forthcoming]) and on Bk. II of the *Posterior Analytics* (ed. Hayduck 1907; tr. [Latin] Andreas Gratiolus 1542/2001). A number of theological writings have also been edited (in Demetrakopulos, *Bibliotheca ecclesiastica* 1866/1965).

Secondary sources. Giocarinis, "Doctrine of Ideas" (1964); Joannou, "Définition des Seins" (1954); Lloyd, "Aristotelianism" (1987); ODB (Kazhdan).

EVERARD OF YPRES (Eberhard) b. Ypres (Flanders), *ca.* 1115; d. after 1191. Theologian and disciple of Gilbert of Poitiers. Studied under Gilbert at Chartres (1130s), Paris (*ca.* 1137) and Poitiers (1142). Joined the Cistercians at Clairvaux sometime after 1185. His *Dialogus Ratii et Everardi* [1191/8] (ed. Häring 1953) defends Gilbert's teachings. Also extant are two letters on the Trinity (ed. Häring, in "Everard of Ypres" 1955) and a *Summula decretalium* [*ca.* 1180] (unedited), whose attribution to Everard is uncertain.

Secondary source. Dronke.

EVRARD OF BÉTHUNE *fl.* 1200. Grammarian, possibly Flemish. Author of the *Grecismus* [*ca.* 1212] (ed. Wrobel 1887), a popular commentary in verse on Donatus's *Barbarismus*.

Secondary source. Grondeux, *Le Graecismus* (2000).

AL-FĀRĀBĪ, Abū Naṣr Muḥammad (Alfarabi, Alpharabius) b. prob. Farab (Turkestan), *ca.* 870; d. Damascus, *ca.* 950. Leading Islamic philospher, influential in logic and language as well as metaphysics and political philosophy. Little is known of his life. Studied in Baghdad, then lived in Damascus, where he died. Combined Aristotelian and Neoplatonic influences; an important source for Avicenna and Maimonides, among many others. Of the more than 100 works attributed to him, only a fraction are extant. Important treatises include the classic metaphysical and political treatise *Al-Madīna al-fāḍila* (*On the Perfect State*) (ed. and tr. Walzer 1985); *Fuṣūl al-madanī* (*Aphorisms of the Statesman*) (ed. and tr. Dunlop 1961); *Risāla fī al-ʿaql* (*The Treatise on Intellect*) (ed. Bouyges 1938; part. tr. Hyman and Walsh, in *Philosophy in the Middle Ages* 1973); *Kitāb al-ḥurūf* (*The Book of Letters*) (ed. Mahdi 1969; part. tr. Khalidi, in *Medieval Islamic Writings* 2005); *Kitāb iḥṣaʾ al-ʿulūm* (*Survey of the Sciences*) (ed. Amīn 1968); *Qāmūs al-Fārābī al-falsafī* (*The Philosophical Lexicon*) (ed. and tr. Alon 2002); and various writings in metaphysics (ed. Dieterici 1890). See also *Political Writings* (tr. Butterworth 2001), and *Philosophy of*

Plato and Aristotle (tr. Mahdī 1969), which contain assorted translations, as do McGinnis and Reisman, *Classical Arabic Philosophy* (2007). Various Aristotelian commentaries have survived, including the *Prior Analytics* (tr. Rescher 1963) and the *De interpretatione* (ed. Kutsch and Marrow 1960; tr. Zimmermann 1981).

Secondary sources. Fakhry, *Al-Fārābī* (2002) [life; works]; Abed, *Aristotelian Logic* (1991); Davidson, *Alfarabi, Avicenna, and Averroes on Intellect* (1992); Galston, *Politics and Excellence* (1990); Lameer, *Al-Fārābī and Aristotelian Syllogistics* (1994); Mahdi, *Alfarabi and the Foundation of Islamic Political Philosophy* (2001); Menn, "Senses of Being" (2008); Netton, *Al-Farabi* (1992); Reisman, "Philosophical Curriculum" (2005); BCPMA (Black); BEIP (Yavuz); EI (Walzer); HIP (Black); REP (Netton).

FERRANDUS OF SPAIN (de Hispania) *fl.* 1290s. Master of arts at Paris. Later bishop of Calahorra. An early example of the sort of Latin Averroism that would become more prominent in John of Jandun. Author of commentaries on the *Metaphysics* and perhaps also on the *Economics* and on Averroes's *De substantia orbis* (all unedited). Also extant is a *Quaestio de specie intelligibili* (ed. Kuksewicz 1977).

Secondary sources. Zimmermann, "Ein Averroist" (1968), "Kritik an Thomas von Aquin" (1976); Weijers.

FERRARIUS THE CATALAN (Ferrer, Catalanus) *fl.* 1265–75. Dominican theologian. Studied in Paris in 1274–5; regent master of theology in 1275–6. Extant works are two *Quodlibeta* [1275/7] and various sermons (only excerpts edited).

Secondary sources. Grabmann, "Quaestiones tres" (1930); Kaeppeli.

FRANCIS OF MARCHIA (de Appignano, de Esculo, de Ascoli, Franciscus Rubeus) b. Appignano del Tronto, *ca.* 1285–90; d. after 1344. Strikingly original Franciscan theologian and natural philosopher. Entered the Franciscan order at an early age; studied at Paris, *ca.* 1310, and subsequently taught at *studia* in Paris and elsewhere. His most important work is his lectures on the *Sentences*, delivered at Paris during the academic year 1319–20 and later revised. Taught at the Franciscan convent in Avignon in 1328, when conflict with John XXII over the mendicant concept of poverty led to his fleeing Avignon with Ockham and others. After many years as a fugitive, speaking out against the pope, Francis was captured and put on trial, perhaps in 1341. He subsequently confessed and recanted. His lectures on the *Sentences* survive in multiple manuscript versions, but were never printed. Editorial efforts are now underway, with several volumes already published (ed. Mariani) and a coordinated effort at a critical edition in progress. Other principal works [dates uncertain] include a *Quodlibet* (ed. Mariani 1997), and commentaries on the *Physics* (ed. Mariani 1998) and *Metaphysics*. Dating to Francis's years in exile, the *Improbatio* offers an extended statement of his political stance against John XXII (ed. Mariani 1993).

Secondary sources. Friedman and Schabel, "Commentaries on the Sentences" (2001) [bibliography]; Duba, "Authenticity" (2007), "Continental Franciscan *Quodlibeta*" (2007); Friedman and Schabel (eds.), *Francis of Marchia* (2006); Priori and Balena (eds.), *Atti del Convegno Internazionale su Francesco d'Appignano* (2004, etc.); Schneider, *Die Kosmologie* (1991); BCPMA (Friedman); DBI (Vian); FA; SEP (Schabel); Weijers.

FRANCIS OF MEYRONNES (de Mayronis) b. Provence, *ca.* 1288; d. Piacenza, 1328. Franciscan theologian. Studied at Paris. An independent-minded disciple of Scotus, and possibly his student at the University of Paris, *ca.* 1304–7. Lectured on the *Sentences* in Paris 1320–1; appointed master of theology in 1323. Served as Franciscan provincial minister of Provence from 1323 to 1328, during which time he continued to lecture in Avignon. His major work is his *Sentences* commentary, which has survived in multiple redactions; the revised version is known as the *Conflatus* (ed. 1520/1966, etc.). Other works include his dispute over the Trinity with Pierre Roger [1320–1] (ed. Barbet 1961); lectures on the *ars vetus* (*Passus*, ed. 1479, etc.) and the *Physics* (ed. 1490, etc.); a treatise on the transcendentals (ed. Möhle 2004); his *Quodlibeta* (ed. 1520/1966, etc.); a large number of sermons (*Quadragesimale*, ed. 1491, etc.); a treatise on intuitive cognition (ed. Etzkorn, in "Franciscus de Mayronis" 1994–7); and various political treatises.

Secondary sources. Roth, *Franz von Mayronis* (1936); Duba, "Continental Franciscan *Quodlibeta*" (2007); Lapparent, "L'œuvre politique" (1940–2); Luscombe, "François de Meyronnes and Hierarchy" (1991); Maurer, "Epistemological Realism" (1971); Maurer, "Role of Infinity" (1971); Möhle, *Formalitas* (2007); Rossmann, *Hierarchie der Welt* (1972); Vignaux, "L'être comme perfection" (1962); BCPMA (Lambertini); FA; Lohr; REP (Hause); Weijers.

FRANCIS OF PRATO b. Prato (Tuscany), *fl.* 1340s. Dominican philosopher, advocate of metaphysical realism. Became a friar as a youth. Studied and lectured at convents throughout central Italy. Principal extant works are his *Logica* [1344–5] (ed. Amerini 2005) and *De universalibus* [1341/3] (ed. Amerini 2003), as well as various treatises, including the *Tractatus de voce univoca* (ed. Amerini 2005), *Tractatus de prima et secunda intentione* (ed. Mojsisch 2000), *Tractatus de sex transcendentibus* (ed. Mojsisch and Maasen 2000), and *Tractatus de suppositionibus terminorum* (ed. Amerini 1999/2000). Also extant are a large number of disputed questions (mostly unedited).

Secondary sources. Amerini, "La dottrina della *significatio*" (2000), "What is Real" (2005); Rode, *Franciscus de Prato* (2004); Kaeppeli.

FREDEGISUS OF TOURS *fl.* 800–30. Carolingian philosopher and theologian. A student of Alcuin. Principal philosophical work is *De nihilo et tenebris* [800/14] (PL 104; tr. Jun 2003), a letter arguing for the reality of nothingness and shadows. His views on the soul are described in a contemporary letter by Agobard of Lyon [*ca.* 830] (PL 104).

Secondary sources. Ahner, *Fredegis von Tours* (1878); Marenbon, *Circle of Alcuin* (1981).

FULBERT OF CHARTRES b. *ca.* 960; d. 1028. Scholar, preacher, poet, and influential teacher. Studied at Rheims and then Chartres, becoming bishop there in 1006. The cathedral school became famous under his leadership; students included Berengar of Tours. His extant works include many letters and hymns (ed. and tr. Behrends 1976) as well as various sermons and treatises (PL 141).

Secondary sources. Association des amis du Centre médiéval européen de Chartres (ed.), *Enseigner le Moyen Age* (1996); Jeauneau, *L'âge d'or* (1995); DMA (Giordanengo).

GABRIEL BIEL b. Speyer (Rhineland), before 1425; d. Einsiedel (Thuringia), 1495. Eclectic theologian, influential on reformation thought. Studied at Heidelberg, Erfurt, and Cologne. Professor of theology at Tübingen from 1484; served several times as rector. Drew on both realist and nominalist traditions and was especially influenced by Ockham. Biel's spiritual interests are pronounced, and he played an important role in the Brethren of the Common Life (*devotio moderna*) movement. His *Sentences* commentary [mid-1480s on] is his most important philosophical work (ed. Rückert *et al.* 1973–92). Also philosophically rich is his commentary on the Canon of the Mass [1488] (ed. Oberman and Courtenay 1963–76). His *Defensiorum obedientiae apostolicae* [1462] (ed. and tr. Oberman *et al.* 1968) makes a case for papal authority. His thought has received particular attention for its voluntarism and alleged Pelagianism; on the latter, see his *Quaestiones de justificatione* (ed. Feckes 1929).

Secondary sources. Oberman, *Harvest* (1963) [bibliography]; Burkard, *Philosophische Lehrgehalte* (1974); Faix, *Gabriel Biel und die Brüder vom Gemeinsamen Leben* (1999); Farthing, *Thomas Aquinas and Gabriel Biel* (1988); BCPMA (Friedman); REP (Farthing).

GAETANO, *see* Cajetan.

GARLAND OF BESANÇON (Gerlandus) *fl.* 1075/1130 (?). Nominalist logician from the circle of Roscelin. Author of an important early logical treatise, the *Dialectica* [1100/20] (ed. de Rijk 1959; part. tr. Bosley and Tweedale, *Basic Issues* 2006). A summary of the *ars vetus*, the *Dialectica* is nominalist in the sense that it treats logic, including the categories and universals, as concerned entirely with words. The treatise devotes particular attention to the hypothetical syllogism. Both the date of this treatise and even the correct name of the author are uncertain.

Secondary sources. Henry, "Singular Syllogism" (1975); Iwakuma, "Vocales" (1992); Stump, "Dialectic" (1980); Tweedale, "Logic" (1988).

GARLAND THE COMPUTIST (Garlandus Compotista) b. Lorraine, *ca.* 1015; d. Besançon, 1084/1102. Scholar and scientist. Studied at Liège. Lived in England from 1036/40 to 1066. Master at Besançon in 1084. A prolific author on subjects such as chronology (*Compotus*), astronomy (*Tabulae astronomicae*), arithmetic (*De abaco*), music (*De fistulis*, *De nolis*), theology (*Candela*), and of commentaries on the Psalms and Gospels (all unedited). It has recently been shown that the important logical treatise, the *Dialectica*, is by a different Garlandus.

Secondary sources. CHLMP; Dronke.

GENTILIS DA CINGULO b. Cingoli [Marche]; d. before 1334. Arts master; prominent modist grammarian. Studied at Paris, *ca.* 1290. Professor of arts at Bologna before 1295. Extant works include questions on Priscian minor (ed. Martorelli Vico 1985), a commentary on Martin of Dacia (ed. Alessio 1992), and various treatises on the *Ars vetus* (unedited).

Secondary sources. Grabmann, *Gentile da Cingoli* (1941); Lohr; Weijers.

GEOFFREY OF ASPALL (Galfridus de Hasphall) b. Suffolk; d. Gascony, 1287. Arts master at Oxford; subsequently enjoyed a long career in royal service. Studied at Paris in the 1240s, probably as a student of Adam of Buckfield. Subsequently served as arts master in the 1250s, until at least 1262. By 1265 his scholarly career seems to have concluded. Almost all the surviving works are Aristotelian commentaries, which are notably composed as a series of questions. Twelve have been identified: the *Metaphysics*, *Physics* (twice), *De caelo* (twice), *De generatione et corruptione* (twice), *De anima*, and various *parva naturalia*. None have been printed, except for books III–IV of the question commentary on the *Physics* (ed. Trifogli, in *Liber Quartus Physicorum* 2007).

Secondary sources. Callus, "The Introduction of Aristotelian Learning" (1943); Macrae, "Commentaries on Aristotle" (1968); Plevano, "Instant of Change" (1993); Zwiercan, "Note sur deux manuscrits" (1961); CHLMP; Lohr; ODNB (Long); Weijers.

GEORGE GEMISTOS PLETHON b. Constantinople, *ca.* 1360; d. Mistra, 1452/4. Leading Byzantine scholar and proponent of Platonism. Little is known about the first half of his life: he seems to have studied at the Islamic court at Adrianople, and later to have taught in Constantinople. Probably expelled to Mistra *ca.* 1410, on suspicions of heresy and paganism. He remained there the rest of his life, aside from a visit to Florence in 1438–9, which gave rise to his pro-Platonic *On the Points on which Aristotle Contentiously Disagrees with Plato* [1439] (ed. Lagarde 1973; tr. Woodhouse, in *George Gemistos Plethon* 1986), which (at least according to legend) subsequently inspired Cosimo de' Medici's Platonic Academy. Other extant works include a treatise on virtues (ed. and [Fr] tr. Tambrun-Krasker 1987); an essay attacking George Scholarios's Aristotelianism (ed. Maltese 1988); and his partially extant *Laws* (ed. and [Fr] tr. Alexandre and Pellissier 1858/1966), which became controversial for its embrace of paganism. Further works are available in PG 160, and in German translation (tr. Blum 1988).

Secondary sources. Demetrakopoulos, "Dependence on Thomas Aquinas" (2006); Karamanolis, "Plethon and Scholarios on Aristotle" (2002); Masai, *Pléthon et le platonisme* (1956); Tambrun, *Pléthon* (2006); Tatakis, *Byzantine Philosophy* (2003); Woodhouse, *George Gemistos Plethon* (1986); ODB (Talbot).

GEORGE PACHYMERES b. Nicaea, 1242; d. Constantinople, after 1307. Historian and teacher of philosophy. Studied in Nicaea and then in Constantinople from 1261. Various ecclesiastical positions followed. Best known for his history of the Byzantine empire from 1260 to 1308 (PG 143–4). More philosophical writings include an encyclopedia of the *quadrivium* (ed. Tannery and Stéphanou 1940); a sequel to Proclus's commentary on the *Parmenides* (ed. Gadra *et al.* 1989); an *explicatio* of the entire corpus of pseudo-Dionysius (PG 3–4); and a monumental *Philosophia* (in twelve books) in which he paraphrases Aristotle's principal works (known in Latin as the "epitome" [ed. 1560]), which is only now being edited in full (Organon ed. Bechius 1548; *Metaphysics* ed. Pappa 2002; *Ethics* ed. Ikonomakos 2005).

Secondary sources. Tatakis, *Byzantine Philosophy* (2003); ODB (Talbot).

GEORGE SCHOLARIOS – GENNADIOS II b. Constantinople, 1400/5; d. Mt. Menoikeion, *ca.* 1472. Theologian, Aristotelian philosopher, patriarch of Constantinople. Taught

philosophy in Constantinople, subsequently becoming a leading ecclesiastical figure. Captured by the Turks in 1453, he was released and appointed patriarch. An adamant opponent of unification with the Roman church. His many extant works (all ed. Petit *et al.* 1928–36) show the influence of Latin authors, especially Aquinas, whose work he translated and commented on, along with that of some other Latin scholastics (see Appendix B5).

Secondary sources. Barbour, *Byzantine Thomism* (1993); Ebbesen and Pinborg, "Gennadios and Western Scholasticism" (1981–2); Karamanolis, "Plethon and Scholarios on Aristotle" (2002); Livanos, *Greek Tradition* (2006); Turner, "Career" (1969); ODB (Talbot).

GEORGE TRAPEZOUNTIOS (of Trebizond) b. Crete, 1395; d. Rome, 1472/3. Rhetorician, translator, Aristotelian philosopher. Studied as a youth in Crete, moving to Italy at age twenty and converting to Catholicism in 1426. Taught Greek and rhetoric in Vicenza, Venice, and Rome. Entered into papal service in the 1440s. Translated into Latin almost all of Aristotle's *libri naturales*, Plato's *Laws*, and other works. A dispute with Bessarion beginning in the 1450s led to his most important work, the *Comparatio Philosophorum Aristotelis et Platonis* [1458] (ed. 1523/1965). Also wrote an earlier, very popular logic textbook, the *Isagoge Dialectica* [*ca.* 1438] (ed. 1539/1966), and a treatise, the *Protectio Aristotelis Problematum* [1456] (ed. Mohler, in *Kardinal Bessarion* 1923–42/1967), attacking the opponents of Aristotelianism. Various theological works are edited in PG 161.

Secondary sources. Monfasani, *George of Trebizond* (1976), *Collectanea Trapezuntiana* (1984); ODB (Kahzdan, Talbot); REP (Monfasani).

GERALD OF ODO (Gerardus Odonis, Guiral Ot, Odon, Eudes) b. Camboulit (southern France), *ca.* 1285/90; d. Sicily, 1349. Franciscan theologian, best known for his long commentary on Aristotle's *Ethics*. Bachelor of theology at Toulouse by 1316, where he lectured on the *Sentences* (only fragments extant). Assigned to Paris in 1327–8, he lectured on the *Sentences* a second time (extant but unedited). Served as Franciscan minister general from 1329 to 1342. Subsequently named patriarch of Antioch and bishop of Catania (Sicily). The most-discussed aspect of his *Sentences* commentary is his argument that a continuum is composed of indivisible, extensionless points. The influential *Ethics* commentary [1320s] (ed. 1482, etc.) gives heavy emphasis to human freedom and the role of the will. A quodlibetal dispute from Paris [1333] concerns the vision of God (ed. and tr. [Fr] Trottmann 2001). Also extant are various logical treatises (ed. de Rijk 1997–), a treatise *De intentionibus* (ed. de Rijk 1997–), various works on physics and metaphysics (ed. in progress), an economic treatise *De contractibus* [*ca.* 1316] (ed. in progress), and numerous biblical commentaries (unedited).

Secondary sources. de Rijk, "Works by Gerald Ot" (1993); Bakker, "Guiral Ot et le mouvement" (2003); Duba and Schabel (eds.), *Vivarium* (2009); Kent, *Aristotle and the Franciscans* (1984), "Aristotle's Ethics" (2008); Langholm, *Price and Value* (1979); Murdoch, "Infinity and Continuity" (1982); Saarinen, *Weakness of Will* (1994); Schabel, "Questions on Divine Foreknowledge" (2002), "*Sentences* Commentary" (2004); Spruyt, "Gerardus Odonis on the Universal" (1996); Walsh, "Commentaries on Aristotle's 'Ethics'" (1975); Zoubov, "Catton, Odon et Bonet" (1959); CHLMP; DMA (Trottmann); Lohr; REP (Kent); Weijers.

GERARD OF ABBEVILLE b. Abbeville (Picardy), *ca.* 1225; d. 1272. Paris theologian and leading critic of the mendicant orders at Paris. Studied at Paris, becoming master of theology before 1257. His principal work is the *Contra adversarium perfectionis christianae* [*ca.* 1269] (ed. Clasen 1938–9). Also extant are a full twenty *Quodlibeta* from his regency as theology professor [*ca.* 1260s] (four qq. on the mendicant controversy ed. Teetaert 1951), as well as various further disputed questions (*De cogitationibus* ed. Pattin, in *L'anthropologie* 1993, along with many quodlibetal questions).

Secondary sources. Congar, "Aspects ecclésiologiques" (1961); BBK (Marschler); Glorieux.

GERARD OF BOLOGNA b. Bologna, 1240s; d. Avignon, 1317. Carmelite theologian. Studied theology in Paris, becoming the first master of theology from among his order, *ca.* 1295. Prior general of his order from 1297, and subsequently much involved in ecclesiastical affairs, although also active at Paris for many years, debating four *Quodlibeta* [1305–11] there and a fifth at Avignon, where he probably composed his unfinished *Summa theologiae* [1313/17] (only excerpts of these edited).

Secondary sources. Brown, "Nature of the Good" (2003); Schabel, "Early Carmelites" (2003), "Carmelite *Quodlibeta*" (2007); Xiberta, *De scriptoribus scholasticis* (1931); DBI (Vecchio); Glorieux.

GERARD OF CREMONA (Gerardus Cremonensis) b. Cremona, 1114; d. Toledo, 1187. Leading translator of Arabic philosophical and scientific work, active in Toledo. According to the *Vita* written by his students (ed. Burnett, in "Coherence" 2001), Gerard learned Arabic so as to be able to translate the massive collection of Arabic texts available in Toledo. Of around seventy translations he is reputed to have made, the most significant include Aristotle's *Posterior Analytics*, *Physics*, *De caelo*, *De generatione et corruptione*, and *Meteorologica* [Bks. I–III], as well as Ptolemy's *Almagest*, various treatises by al-Kindī and al-Fārābī, and the *Liber de causis* (ed. Pattin 1966); he also translated a large number of medical, astronomical, mathematical, and alchemical treatises. (See Appendices B1 and B4.)

Secondary sources. Brams, *Riscoperta di Aristotele* (2003); d'Alverny, "Translations and Translators" (1982); Burnett, "Arabic into Latin" (2005); Dod, "Aristoteles Latinus" (1982); DBI; DMA (Draelants); Dronke.

GERARD OF SIENA b. Tuscany; d. 1336. Augustinian theologian. Lectured on the *Sentences* in Paris, *ca.* 1325 (Bk. I ed. 1598; Bk. II–III extant but unedited); master of theology by 1330. Also extant are some quodlibetal questions [1330] (unedited), from which is drawn a *Tractatus de usuris et restitutionibus* (ed. 1556).

Secondary sources. Schabel and Courtenay, "Augustinian Quodlibeta" (2007); Trapp, "Augustinian Theology" (1956); DBI (Vecchio).

GERHOH OF REICHERSBERG b. Polling (Bavaria), *ca.* 1093; d. Reichersberg (upper Austria), 1169. Scholar and Church reformer. Studied at Hildesheim; taught at Augsburg. After becoming a regular canon, he became provost at the Augustinian house of Reichersberg in 1132, where he spent most of his remaining life. His principal work is a very

long commentary on the Psalms. Also extant are sixteen treatises and various letters. Most of his work is printed in PL 193–94; the rest has been edited in Van den Eynde *et al.* (1955–6).

Secondary sources. Classen, *Gerhoch von Reichersberg* (1960); Van den Eynde, *L'œuvre littéraire* (1957).

GERSHOM BEN SOLOMON *fl*. Arles, second half of thirteenth century. Encyclopedic author, perhaps the father of Levi ben Gershom. Only known work is the encyclopedic *Shaʿar ha-Shamayim* (*Gate of Heaven*) [1242/75] (ed. 1876/1967; tr. Bodenheimer 1953).

Secondary source. Sirat.

GERSONIDES, *see* Levi ben Gershom.

GERTRUDE THE GREAT (of Helfta) b. 1256; d. 1302. Mystic. An orphan, raised from age five at the monastery of Helfta (Saxony). Educated by Mechthild of Hackeborn, she in turn became a spiritual counselor and educator. Her numerous spiritual visions are described in two works: the *Exercitia spiritualia* (tr. Lewis and Lewis 1989) and the *Legatus divinae pietatis* (*Herald of Divine Love*) (tr. Windworth 1993), much of which was compiled after her death (both ed. and [Fr] tr. Hourlier *et al.* 1967–86).

Secondary sources. Finnegan, *Women of Helfta* (1991); Bynum, *Jesus as Mother* (1982).

AL-GHAZĀLĪ, Abū Ḥāmid Muḥammad ibn Muḥammad (Algazel) b. Tus (Khurasan), *ca.* 1058; d. Tus, 1111. Brilliant Persian philosopher and theologian who gave up a distinguished teaching career to embrace the mystical practices of Sufism. Studied in Tus, Jurjan, and Nishapur; eventually came to Baghdad, where he was appointed head of Niẓāmīya College in 1091. The leading intellectual figure in the capital of the Moslem world, al-Ghazālī nevertheless resigned his position in 1095, in the wake of a spiritual crisis (as well as perhaps a political one). Withdrawing from public life, he taught at small private schools in Damascus and Jerusalem, and ultimately returned to Tus, where he taught and wrote, founding a small private school and a Sufi convent. In 1106, citing the widespread theological confusion of the time, he returned to a high–profile, state-sponsored position at Nishapur, but ultimately returned to his school in Tus.

Al-Ghazālī's autobiography, *Al-Munqidh min al-ḍalāl* (*The Deliverer from Error*) [*ca.* 1108] (ed. Ṣalībā and ʿAyyād 1934; tr. McCarthy 1980), describes his renuncia-tion of academic philosophy in favor of Sufism, which he came to regard as the only path to certainty. His best-known philosophical work, ironically, is a work that he wrote to summarize the philosophical thinking that he came to reject, the *Maqāṣid al-falāsifa* (*Intentions of the Philosophers*) [1094] (ed. Dunyā 1961). The only work of al-Ghazālī's to be translated during the Middle Ages (into both Latin [ed. Lohr 1965 (logic); ed. Muckle 1933 (metaphysics and physics)] and Hebrew), it gave Christians and Jews the impression that he was a vigorous defender of an Avicennian philosophical program. Al-Ghazālī's true philosophical masterpiece is the *Tahāfut al-falāsifa* (*The Incoherence of the Philosophers*) [1095] (ed. and tr. Marmura 1997), in which he challenges twenty theses alleged to have been demonstrated by the *falāsifa* – embracing, most famously, an occasionalist theory of causality. Averroes would later reply to this work, point by point, in his *Tahāfut al-tahāfut*

(*The Incoherence of the Incoherence*). Other important works include various theological works: *Al-Iqtiṣād fī al-iʿtiqād* (*The Middle Path in Theology*) [*ca.* 1095] (ed. Çubukçu and Atay 1962; part. tr. Abū Zayd 1970); *Al-Risāla al-Qudsiyya* (*The Jerusalem Epistle*) [*ca.* 1096] (ed. and tr. Tibawi 1965); *Fayṣal al-tafriqa bayna al-Islām wa-al-zandaqa* (*The Decisive Criterion for Distinguishing Islam from Clandestine Unbelief*) (ed. Dunyā 1961; tr. Jackson 2002); three works on Aristotelian logic: *Miʿyār al-ʿilm* (*The Standard Measure of Knowledge*) [1095] (ed. Shams al-Dīn 1990); *Miḥakk al-naẓar fī al-manṭiq* (*The Touchstone of Proof in Logic*) [1095] (ed. al-Naʿsani 1966); and *Al-Quṣtās al-mustaqīm* (*The Just Balance*) [1095–6] (ed. Shalḥat 1959; tr. Brewster 1978); an ethical treatise, *Mīzān al-ʿamal* (*The Balance of Action*) [1095] (ed. Dunyā 1964; [Fr] tr. Hachem 1945); and various later Sufi-influenced treatises, including the multi-volume *Iḥyāʾ ʿulūm al-dīn* (*The Revivification of the Religious Sciences*) [1096–7] (ed. 2002, etc.; many partial trs.) and *Mishkāt al-anwār* (*The Niche of the Lights*) [1106–7] (ed. and tr. Buchman 1998).

Secondary sources. D'Alverny, "Algazel dans l'occident latin" (1986); Dutton, "Al-Ghazālī on Possibility" (2001); Frank, *Creation* (1992); Frank, *Al-Ghazali and the Ashʿarite School* (1994); Griffel, *Apostasie und Toleranz* (2000), *Philosophical Theology* (forthcoming); Jabre, *La notion de certitude* (1958); Kukkonen, "Possible Worlds" (2000); Laoust, *La politique de Gazali* (1970); Marmura, "Ghazalian Causes" (1995), "Al-Ghazālī" (2005); Moose, *Ghazali and the Poetics of Imagination* (2006); Ormsby, *Theodicy* (1984); Ormsby, *Ghazali* (2007); Perler and Rudolph, *Occasionalismus* (2000); Shehadi, *Ghazali's Unique Unknowable God* (1964); Sherif, *Ghazali's Theory of Virtue* (1975); Whittingham, *Al-Ghazali and the Quran* (2007); BCPMA (Druart); EI (Watt); HIP (Campanini); REP (Nakamura); SEP (Griffel).

GILBERT OF POITIERS (Gilbertus Porreta, Porretanus, de la Porrée) b. Poitiers, 1085/90; d. 1154. Theologian and logician who shaped much of subsequent twelfth-century thought. Studied in Chartres under Bernard and then at Laon under Anselm and Ralph of Laon. Left Laon by 1116; after time in Poitiers became canon in 1124 and then chancellor at Chartres from 1126 until *ca.* 1137. Taught at both Chartres and Paris during these years. Founded a school of philosophy in Paris which survived well into the second half of the twelfth century and whose members, the Porretani, produced a large body of work building on Gilbert's ideas. Bishop of Poitiers from 1142. His views on the Trinity led to charges of heresy, pushed by Bernard of Clairvaux, but Gilbert successfully defended himself (1147–8) and died with his reputation intact. His only surviving work is theological: commentaries on Boethius's theological works [1146–7] (ed. Häring 1966), and still unedited commentaries on the Psalms [before 1116] and Pauline letters [*ca.* 1135]. His distinctive ideas in logic emerge from the works of others, including the *Compendium* of an anonymous student (ed. Ebbesen *et al.* 1983). Gilbert was traditionally but is no longer credited as the author of the *Liber sex principiorum* (see Lewry, "Liber sex principiorum" 1987).

Secondary sources. Nielsen, *Theology and Philosophy* (1982) [biography etc.]; de Rijk, "Semantics and Metaphysics" (1988–9); Gross-Diaz, *Psalms Commentary* (1996); Gammersbach, *Gilbert von Poitiers und seine Prozesse* (1959); Jacobi, "Einzelnes" (1995); Jolivet and de Libera, *Aux origines de la logica modernorum* (1987); Maioli, *Gilberto Porretano* (1979);

Marenbon, "Gilbert of Poitiers" (1988), "Note on the Porretani" (1988); BCPMA (Marenbon); DMA (de Libera); Dronke; REP (Jacobi).

GILBERT OF STRATTON d. *ca.* 1294. Oxford theologian. Secular master, incepted *ca.* 1288. Various disputed questions are extant (unedited except for a question on the eternity of the world in Dales and Argerami, *Medieval Latin Texts* 1991).

Secondary sources. Dales, "Gilbert of Stratton" (1994); Little and Pelster, *Oxford Theology* (1934); Emden.

GILBERT OF TOURNAI (Guibert, van Doornik, de Tornaco) b. Tournai, 1200/10; d. Tournai, 1284/8. Franciscan theologian, notable for the spiritual, non-technical character of his work. Studied the arts in Paris, becoming master of arts before 1240. Began the study of theology and joined the Franciscan order, taking the Franciscan chair of theology *ca.* 1260. His *Sentences* commentary has not been found. What remains are a great many sermons and non-scholastic treatises, most notably the *Rudimentum doctrinae* [1259–68] (ed. in progress; part. ed. Gieben, in "Four Chapters" 1963), which includes the *De modo addiscendi* (ed. Bonifacio 1953). Also extant is a *Tractatus de pace* [*ca.* 1275] and a treatise written for Louis IX, the *Eruditio regum et principum* [1259] (ed. de Poorter 1914).

Secondary source. FA.

GILES OF LESSINES b. Lessines (southwest Belgium), *ca.* 1230; d. *ca.* 1304. Dominican theologian and early Thomist. A student of Albert the Great, perhaps in Cologne, and later of Aquinas in Paris around 1270. His only extant philosophical work is the *De unitate formae* [1278] (ed. de Wulf 1901).

Secondary sources. Iribarren, "Responsio" (2001); CALMA; Kaeppeli; Roensch; Weijers.

GILES OF ORLEANS (Aegidius Aurelianensis) *fl.* second half of thirteenth century; d. after 1277. Paris arts master, known only for various Aristotelian commentaries, of which only the *De generatione et corruptione* (ed. Kuksewicz 1993) has been edited.

Secondary sources. Korolec, "Conceptions de philosophie morale" (1990); Kuksewicz, "Theorie der Materie" (1991); CALMA; Lohr; Weijers.

GILES OF ROME (Aegidius Romanus, Egidius Colonna) b. prob. Rome, *ca.* 1243/7; d. Avignon, 1316. Innovative theologian and philosopher with Thomistic leanings; his work was deeply influential on later scholastic thought. Joined the order of the Augustinian Hermits as a youth, studied the arts at Paris, and then theology from 1269 to 1272, probably under Aquinas. Lectured on the *Sentences* before 1271; books I–II were later revised (Bk. I ed. 1521/1968). Subsequently commented on a wide range of Aristotelian and associated texts. Attacked in 1277 for heterodox views, to which he responded, unrepentant, in his *Apologia* (ed. Wielockx 1985). Abandoned Paris, presumably for Italy, where he stayed until 1285, when – after papal intervention – he returned to Paris, becoming master of theology by 1287. Elected prior general of the Augustinian order in 1292 and archbishop of Bruges in 1295. Heavily involved in ecclesiastical affairs during these later years, as evidenced by the treatises *De renuntiatione papae* [1297] (ed.

Eastman 1992) and *De ecclesiastica potestate* [1301–2] (ed. and tr. Dyson 2004). Giles's work is available in various Renaissance editions, many of which have been reprinted by Minerva (1966–70). A critical *Opera omnia* is in the early stages. In addition to the works already mentioned, other important treatises include the *Theoremata de esse et essentia* [1278/85] (ed. Hocedez 1930; tr. Murray 1952), the *Theoremata de corpore Christi* [*ca.* 1274] (ed. 1481, 1554–5/1968), the *Contra gradus et pluralitatem formarum* [1278] (ed. 1500/1982), the *De regimine principum* (ed. 1556/1968; part. tr. CTMPT II), and also Aristotelian and biblical commentaries, as on the Song of Songs (ed. 1554–5/1968; tr. Rotelle 1998). There is also a *Quodlibet* from Italy [1281] (ed. Bruni, in "Quaestiones" 1939–40), some *Quodlibeta* from his second stay in Paris (ed. 1646/1966), and various disputed questions (ed. 1503/1968). The traditional attribution to Giles of the *Errores philosophorum* [*ca.* 1270] (ed. and tr. Koch and Riedl 1944) is doubtful (see Donati, "Studi per una cronologia" 1990).

Secondary sources. Conti, "Conscenza e verità" (1992); Donati, "La dottrina delle dimensioni indeterminate" (1988); Eardley, "Foundations of Freedom" (2006); Pini, "Giles of Rome" (2006); Trifogli, "Natural Motion in the Void" (1992); Trifogli, "Instant of Change" (1993); BCPMA (Donati); CALMA; DBI (Del Punta, Donati and Luna); REP (Del Punta and Trifogli); SEP (Lambertini); Weijers.

GODFREY OF FONTAINES (Godefridus de Fontibus) b. Liège, *ca.* 1250; d. 1306/9. Paris theologian and philosopher. Studied arts at Paris in the early 1270s and theology from at least 1274, studying with Henry of Ghent among others. Master of theology from 1285 to *ca.* 1303–4. Also served as canon of Liège and Tournai and as provost of San Severin at Cologne from 1287 to 1295; elected bishop of Tournai in 1300 but declined the position, apparently because the election was contested. Godfrey's views are quite independent but often set off in directions suggested by Aquinas. His work also reflects an interest in the radical Aristotelianism of the arts faculty, as is demonstrated by the presence of such works in the library of manuscripts he left the Sorbonne. This includes a "Student Notebook," which contains his own transcriptions of Siger of Brabant, Boethius of Dacia, Aquinas, Giles of Rome, and others. Principal work is fifteen wide-ranging quodlibetal questions (ed. 1904–37; X.6, XI.17, XIII.1 tr. CTMPT II), numbered in chronological order and running from Christmas 1285 until 1303/4. Generally, there is one from each year, with a gap of around five years between the last two. Also surviving are various briefer, ordinary disputed questions, some of which have been edited in scattered books and articles.

Secondary sources. Wippel, *Metaphysical Thought of Godfrey of Fontaines* (1981) [biobib-liography, etc.]; de Lagarde, "La philosophie sociale" (1943–5); De Wulf, *Un théologien-philosophe* (1904); Duin, "La bibliothèque" (1959); Lambertini, "Political *Quodlibeta*" (2006); Tihon, *Foi et théologie* (1966); Wippel, "Godfrey of Fontaines at the University of Paris" (2001), "Godfrey of Fontaines' Quodlibet XIV" (2006); BCPMA (Wippel); DMA (de Libera); REP (Wippel); SEP (Wippel).

GONSALVO OF SPAIN (Gonsalvus Hispanus, Gonsalvus of Balboa) b. Galicia, *ca.* 1255; d. *ca.* 1313. Franciscan philosopher and theologian. Sometimes referred to as Gonsalvus de Vallebona, although this is actually the name of a different Spanish Franciscan. Completed

his early studies in Spain and his bachelor of theology at Paris by 1288. Elected provincial minister for the province of Santiago of Compostela in 1290. Returned to Paris *ca.* 1297 as master of theology; served as Franciscan regent master in 1302–3, supervising Scotus at this time. Forced, with Scotus, to leave Paris in 1303 for refusing to support King Philip IV over Pope Boniface VIII. Returning to Spain, he was appointed Franciscan minister general in 1304, a position he held until his death. Gonsalvo's philosophical views are characteristically Franciscan, defending the plurality of substantial forms, spiritual matter, and the primacy of will over intellect. His principal surviving works are a collection of disputed questions [1302–3] (ed. Amorós 1935) and his *Conclusiones metaphysicae*, formerly ascribed to Scotus (ed. Wadding, 1639, vol. IV; Vivès 1892, vol. VI). His *Sentences* commentary has not been found.

Secondary sources. Gracia, "Agent and Possible Intellects" (1969); Longpré, "Gonsalve de Balboa" (1924–5); Martel, *La psychologie* (1968); BCPMA (Traver); FA; Weijers.

GOSVIN OF MARBAIS b. Marbais (Belgium); *fl.* 1270s. Arts master at Paris. Only known work is the grammar textbook *Tractatus de constructione* [*ca.* 1270] (ed. Rosier-Catach 1998). Perhaps the same man as Gosvin de la Chapelle, a Paris arts master who fell under suspicion of heresy along with Siger of Brabant in 1276.

Secondary sources. Rosier-Catach, *La parole comme acte* (1994); Weijers.

GOTTSCHALK OF ORBAIS b. *ca.* 805; d. Hautvillers, 868. Theologian, controversial for his theory of predestination. Educated first at the monastery of Fulda, then at Reichenau. Controversy ensued in 829 when Gottschalk resisted becoming a monk. Released from his vows, which he had claimed were forced upon him, he subsequently traveled widely, spending some time at the monasteries of Corbie and Orbais. In 848 and again in 849 his doctrine of "dual predestination" was condemned; when Gottschalk refused to disavow it, he was sentenced to life imprisonment in the abbey of Hautvillers. His various surviving works – many discovered only in 1931 – are available in a modern edition (ed. Lambot 1945).

Secondary sources. Ganz, "Debate on Predestination" (1990); Jolivet, *Godescalc d'Orbais et la trinité* (1958); Tavard, *Trina Deitas* (1996); Weber, *Die Gedichte* (1992).

GRATIADEUS AESCULANUS (Giovanni Graziadei of Ascoli) *fl.* first half of fourteenth century. Dominican philosopher. Professor of philosophy at Bologna and Padua. Extant works include a series of Aristotelian commentaries, including the *Ars vetus* (ed. 1491, etc.), the *Physics* [both literal and questions] (ed. 1517, etc.), and the *De anima* (unpublished). Some editions of Aquinas use his commentary on the *De interpretatione* to complete Aquinas's unfinished commentary.

Secondary sources. DBI (Gentili); Kaeppeli; Lohr.

GRATIAN *fl.* Bologna, 1140s. Foundational figure in canon law. All that is known of his life with certainty is that he composed the *Concordia discordantium canonum*, the fundamental work of canon law that became known as the *Decretum* (ed. 1558, etc.; part. tr. Thompson 1993). The work is an attempt to harmonize thousands of passages from various Church authorities, which Gratian organized and commented on. This

quickly became the basic textbook of canon law. Included as part of the *Corpus iuris canonici* (ed. Richter and Friedberg 1879/1959), it remained authoritative within the Church until 1917. A searchable edition is available on the web through the Bayerische Staatsbibliothek.

Secondary sources. Chodorow, *Christian Political Theory* (1972); Kuttner, *Gratian* (1983); Noonan, "Gratian Slept Here" (1979); Reuter, *Wortkonkordanz zum Decretum Gratiani* (1990); Tierney, *Foundations* (1998); Winroth, *Making of Gratian's Decretum* (2000); Vetulani, *Sur Gratien et les Décrétales* (1990); Pennington.

GREGORY PALAMAS b. Constantinople, *ca.* 1296; d. 1357. Leading Orthodox theologian, controversial for his real distinction between God's unknowable essence and "energies," a doctrine that became known as Palamism. Joined the monastery of Mt. Athos as a young man, becoming a priest in 1322. Imprisoned in 1342 for five years, but on his release made metropolitan of Thessalonica. Prominent works include the *Triads in Defense of the Holy Hesychasts* [1334–40] (ed. Meyendorff 1973; tr. Gendle 1983), written against Barlaam of Calabria; a *Dialogue* also against Barlaam (ed. and tr. Ferwerda 1999); the *One Hundred and Fifty Chapters* [1347/8] (ed. and tr. Sinkewicz 1988); an extensive correspondence with Barlaam and others (ed. Bobrinsky *et al.* 1962–70); as well as many homilies (tr. Veniamin 2002). For other works, see PG 150–1.

Secondary sources. Ierodiakonou, "Anti-Logical Movement" (2002); Meyendorff, *Study of Gregory Palamas* (1974); ODB (Papadakis).

GREGORY OF RIMINI (Gregorius Ariminensis, de Arimino) b. Rimini, *ca.* 1300; d. Vienna, 1358. Prominent Paris theology master; the last great scholastic theologian of the Middle Ages. Joined the Augustinian Hermits as a youth. Studied in Paris from 1322/3 until 1328/9. Subsequently taught at various Augustinian *studia* in Italy, and then returned to Paris *ca.* 1342 to lecture on the *Sentences* [1343–4]. Appointed master of theology in 1345, then returned to Italy, teaching at Padua from 1347 to 1351 and then Rimini from 1351 to 1356. Elected prior general of the Augustinian order in 1357. Rimini's views are not easily characterized: he championed the new ideas coming out of England, and would subsequently be listed among the nominalists, but at the same time he was deeply influenced by Augustine. His work was subsequently much cited and even copied by later scholastics, and was printed many times during the Renaissance. By far the most important work is the *Sentences* commentary (ed. Trapp 1979–84), of which only Books I–II circulated. Also surviving are a treatise *De usura* (ed. 1508, etc.) and various unpublished works, including a treatise on the cardinal virtues.

Secondary sources. Biblioteca civica Gambalunga, *Gregorio da Rimini filosofo* (2003); Bermon, *L'assentiment* (2007); Courtenay, "Whether God Can Undo the Past" (1972–3); Cross, "Infinity, Continuity" (1998); Eckermann, *Wort und Wirklichkeit* (1978); García Lescún, *La teología trinitaria* (1970); Leff, *Gregory of Rimini* (1961); Oberman (ed.), *Gregor von Rimini* (1981); Santos-Noya, *Die Sünden und Gnadenlehre* (1990); Schabel, *Theology at Paris* (2000); BCPMA (Zupko); DBI (Lambertini, Tabarroni, and Conti); REP (Brown); SEP (Schabel).

GUALTERUS, *see* Walter.

GUARINO VERONESE (da Verona) b. Verona, 1374; d. Ferrara, 1460. Early Italian humanist. Studied in Padua and in Constantinople [1403–8]. Taught in Florence 1410–14, Verona 1419–29, and Ferrara 1429–60. Composed the earliest humanist Latin grammar, the *Regulae grammaticales* [before 1418] (ed. 1508, etc.), a brief but influential work that is most notable for omitting any trace of scholastic metaphysics and logics. A pioneer in editing and translating classical texts. His letters have been edited in three volumes (ed. Sabbadini 1915–19).

Secondary sources. Sabbadini, *Guariniana* (1891–6); Canfora, *La controversia* (2001); Percival, "Changes in the Approach to Language" (1982); Schweyen, *Guarino Veronese* (1973); CHLMP; DBI (Pistilli).

GUERRIC OF ST. QUENTIN b. Picardy; d. 1245. Arts master and Dominican theologian. Doctor of medicine and master of arts at Paris. Joined the Dominican order *ca.* 1225. After studying theology at Bologna and Paris, he became regent master from 1233 to 1242. Held some of the first quodlibetal disputations (ed. Principe 2002). Also extant are various sermons and biblical commentaries, and questions on the *Sentences* (only excerpts edited).

Secondary sources. Côté, "Problème de l'infinité divine" (1995); DMA (Côté); Glorieux.

GUY TERRENA (Guido Terreni) b. Perpignan, *ca.* 1260–70; d. Avignon, 1342. Carmelite theologian. Student of Godfrey of Fontaines in Paris. Master of theology at Paris from 1312 to 1317. Prior general of the Carmelite order 1318–21. Bishop of Majorca 1321–32; bishop of Elna 1332–42. Prominent critic of the voluntarism associated with Franciscan thought. An outspoken advocate of papal authority. Many works survive, mostly unedited, including six *Quodlibeta*, disputed questions *De verbo* and another set of disputed questions (both unedited), six more theological questions (ed. Etzwiler 1988), fragments of his *Sentences* commentary, commentaries on Aristotle's *Physics*, *Ethics* (both unedited), and *De anima* (fragments, ed. Etzwiler 1974), a philosophically interesting commentary on the *Decretum* (unedited), a treatise on papal infallibility (ed. Xiberta 1926), and a *Summa de haeresibus* (ed. 1631).

Secondary sources. Xiberta, *Guiu Terrena* (1932); Brown, "Unity of the Concept of Being" (1992); Schabel, "Early Carmelites" (2003), "Carmelite Quodlibeta" (2007); Tierney, *Origins of Papal Infallibility* (1972); BCPMA (Bertelloni); DMA (Trottmann); Lohr; Weijers.

GUY VERNANI OF RIMINI b. Vergnano (near Rimini); d. *ca.* 1345. Dominican friar, best known for his writings on church and state. Lector at the Bologna convent in 1312. At the Rimini convent 1324–44. Commentaries have survived on the *De anima*, *Ethics*, *Politics*, and *Rhetoric* (all unedited). Wrote a treatise *De potestate summi pontificis* [1327] (ed. Cheneval 1995), and a fierce *Refutation* of Dante's *Monarchia* [1329] (ed. Matteini 1958; tr. Cassell, in *Historical Study* 2004), both in defense of papal authority. Composed a *Liber de virtutibus* (ed. Cova forthcoming), organized along the lines of the second part of Aquinas's *Summa theologiae*.

Secondary sources. Dunbabin, "Commentary on Aristotle's *Politics*" (1988); CHLMP; Kaeppeli; Weijers.

GUILLELMUS, *see* William.

ḤASDAI CRESCAS b. Barcelona, *ca.* 1340; d. 1410/11. Strikingly original Jewish philosopher, often standing in opposition to Aristotelianism. Studied in Barcelona, and attained a considerable reputation by 1370. Moved to Saragossa in 1389, where he wielded considerable authority as rabbi and liaison to the king, and helped Jewish communities rebuild after the devastating riots of 1391. His major work, the *Sefer Or Adonai* (*Light of the Lord*) [1405–10] (ed. Fischer 1990; part. tr. Wolfson, in *Crescas' Critique* 1929; part. tr. Manekin, in *Writings* 2007), attacks the Aristotelianism of Maimonides and Levi ben Gershom, advancing in the process many provocative theses, such as a substantival theory of space and a defense of determinism that expressly precludes free will. Also composed a polemic against Christianity, the *Sefer Biṭṭul ʿIqqarei ha-Nosrim* (*Refutation of the Principles of the Christians*) [1397–8] (tr. Lasker 1992; ed. and [Sp] tr. Valle Rodriguez), and a sermon on the Passover, *Derashat ha-Pesaḥ* (ed. Ravitzky 1988).

Secondary sources. Feldman, "Theory of Eternal Creation" (1980); Harvey, *Physics and Metaphysics* (1988); Pines, *Scholasticism* (1967); Robinson, "Hasdai Crescas" (2003); Rudavsky, "Theory of Time" (1990); Tobiass and Ifergan, *Crescas* (1995); Touati, "La providence" (1983); Wolfson, *Crescas' Critique* (1929); BCPMA (Rudavsky); HJP (Lasker); REP (Feldman).

HEIRIC OF AUXERRE b. 841; d. 876/7. Scholar, poet, teacher. Entered the monastery of St. Germanus of Auxerre at age seven. Became master of the school there, and had among his students Remigius, who succeeded him as master at Heiric's death. A collection of homilies (ed. Quadri 1992–) survives, and a plausible case can be made for Heiric's authorship of various glosses on the *Categoriae decem* (ed. Marenbon, in *Circle of Alcuin* 1981) and Boethius's *Opuscula sacra* (ed. Rand, in *Johannes Scottus* 1906).

Secondary sources. Marenbon, *Circle of Alcuin* (1981); BBK (Bautz).

HENRY ARISTIPPUS b. Calabria (?), *ca.* 1100; d. *ca.* 1162. Sicilian translator of Greek texts. Archdeacon of Catania in 1156. Ambassador to Constantinople 1158–60, where he obtained many Greek manuscripts. Chief minister of Sicily in 1160, but subsequently put in prison by the king, where he died. Translated Plato's *Phaedo* [1156] (ed. Minio-Paluello 1950) and *Meno* [1154/60] (ed. Kordeuter and Labowsky 1940), works that would have little influence on subsequent thought. Also translated Aristotle's *Meteorologica* Bk. IV (unedited).

Secondary sources. Dod, "Aristoteles Latinus" (1982); DMA (Lambert); Dronke.

HENRY BATE OF MALINES (Henricus Batenus) b. Mechelen (Belgium), 1246; d. Tongerloo (?), after 1310. Encyclopedist and astronomer. Studied at the Paris arts faculty *ca.* 1266–70, becoming master of arts before 1274. Perhaps became master of theology there, but mainly studied and wrote outside of the university context. His major work is the *Speculum divinorum et quorundam naturalium* [1285–1305] (part. ed. van de Vyver *et al.*

1960–), a twenty-three part synthesis of Aristotelian, Platonic, Jewish, and Islamic scientific and philosophical thought. Many minor works survive, including his *Nativitas* [1280] (unedited), which amounts to an astrological autobiography, and a treatise on the construction of the astrolabe, the *Magistralis compositio astrolabii* (ed. 1485). Henry also translated and wrote commentaries on various Jewish and Arabic treatises of astronomy.

Secondary sources. Gregory, "Platone e Aristotele" (1961); Guldentops, "Encyclopaedism" (1997), "Metamorphosis of Averroës" (1996); Wallerand, "Henri Bate et saint Thomas d'Aquin" (1934); DMA (Beyer de Ryke); DSB (Poulle); Weijers.

HENRY OF BRATTON (Bracton) b. near Barnstaple (Devon); d. Exeter, 1268. English jurist. Traditionally identified as the author of the most ambitious English legal work of the Middle Ages, the *De legibus et consuetudinibus Angliae* [*ca.* 1230–50s] (ed. and tr. Woodbine and Thorne 1968–77), which attempts to summarize all of English common law. Although the unfinished treatise is often known simply as *Bracton*, Bratton himself seems only to have been responsible for revisions and updates to a work begun much earlier. Also associated with Bratton is a notebook that transcribes some two thousand cases taken from plea rolls dating from 1217 to 1240 (ed. Maitland 1887/1983/1999).

Secondary sources. Barton, "Mystery of Bracton" (1993); Brand, "Age of Bracton" (1996); Nederman, "Kingship Revisited" (1984); "Royal Will" (1988); CHLMP; ODNB (Brand).

HENRY OF FRIEMAR b. Friemar (Thuringia), *ca.* 1245; d. Erfurt, 1340. Augustinian friar and theologian. Joined the order of Augustinian Hermits at a young age; studied theology in Bologna before 1264. Provincial minister in Germany 1290–9; subsequently studied theology in Paris, becoming regent master 1305–12. Later served as master in Erfurt. Extant works include *De quatuor instinctibus* (ed. Warnock and Zumkeller 1977); *De decem preceptis* (ed. Guyot 2005); various ascetic-mystical treatises (ed. Zumkeller 1975); a *Quodlibet*; and a commentary on the *Ethics* (both unedited).

Secondary sources. Stroick, *Heinrich von Friemar* (1954); BBK (Bautz); Lohr.

HENRY OF GHENT (Henricus Gandavensis, de Gandavo) b. Ghent, *ca.* 1217; d. 1293. Leading Paris theologian whose views would be extensively debated by subsequent generations. Master of theology at Paris in 1275/6 until shortly before his death. Canon of Tournai, archdeacon of Bruges in 1277 and then of Tournai from 1278/9 until his death. Member of the commission of theologians who advised Stephen Tempier prior to his issuing the Condemnation of 1277. A secular master (unaffiliated with any religious order), his ideas are quite distinct from those of the great Dominican and Franciscan theologians of the previous generation, such as Aquinas and Bonaventure. His principal works are a vast number of disputed questions defended over the length of his career, divided into a series of fifteen *Quodlibeta*, and a massive collection of *Quaestiones ordinariae*, which are organized in the form of a theological *Summa*. A critical edition of both these works is well underway (*Opera omnia* 1979–); parts not yet edited are accessible in reliable Renaissance editions (ed. 1518/1961 and 1520/1953). A growing number of translations

are available: on political philosophy (tr. CTMPT II); divine illumination (CTMPT III); free will (tr. Teske 1993); God's existence and essence (tr. Decorte and Teske 2005); God's unity and simplicity (tr. Teske 2006). Other works, of uncertain authenticity, are a set of questions on the *Liber de causis* (ed. Zwaenepoel 1974); various lectures on the Bible (*Opera* vol. XXXVI); and commentaries on the *Physics* and *Metaphysics* (unedited).

Secondary sources. Flores, *Metaphysics and the Trinity* (2006); Guldentops and Steel (eds.), *Henry of Ghent* (2003); Gómez Caffarena, *Ser participado* (1958); Laarmann, *Deus, primum cognitum* (1999); Marrone, *Truth and Scientific Knowledge* (1985); Paulus, *Henri de Gand* (1938); Pasnau, "Twilight of Divine Illumination" (1995); Pickavé, *Metaphysik als erste Wissenschaft* (2007); Vanhamel (ed.), *Henry of Ghent* (1996); BCPMA (Wielockx); DMA (Porro); Lohr; REP (Marrone).

HENRY OF HARCLAY b. *ca.* 1270; d. Avignon, 1317. English theologian. Studied arts at Oxford, becoming master by 1296. Moved to Paris to study theology, where he was deeply influenced by Scotus's lectures. Lectured on the *Sentences* himself *ca.* 1300. Returned to Oxford, becoming master of theology before 1312, in which year he was appointed chancellor, a position he retained until his death. Though traditionally described as a Scotist, Harclay developed many original and controversial views. His principal work is a wide-ranging, philosophically rich series of twenty-nine *Quaestiones ordinariae* (ed. and tr. Henninger 2008), all dating from his years as master of theology in Paris. Of his earlier *Sentences* commentary, only Book I is extant (unedited).

Secondary sources. Dales, "Henry of Harclay on the Infinite" (1984); Henninger, *Relations* (1989); Maurer, "Univocity of Being" (1954); Murdoch, "Henry of Harclay and the Infinite" (1981); Pelster, "Heinrich von Harclay" (1924); Thijssen, "Response to Thomas Aquinas" (1990); BCPMA (Henninger); ODNB (Henninger); REP (Molland).

HENRY HOPTON *fl.* 1350s–60s. Oxford arts master. Fellow of University College in 1357. Author of an *Insolubilia* (unedited) and a treatise *De veritate et falsitate propositionis* (ed. in William Heytesbury 1494).

Secondary sources. Ashworth and Spade, "Logic in Late Medieval Oxford" (1992); Biard, "La signification" (1983); Maierù, "The Sophism" (1993); Spade, *Mediaeval Liar* (1975); Emden.

HENRY OF LANGENSTEIN (Henry Heimbuch, of Hesse) b. near Marburg, 1325; d. Vienna, 1397. Secular theologian. Studied in Paris, becoming master of arts in 1363 and master of theology in 1375. Professor of theology at Vienna in 1384. Lectured on the *Sentences*, most likely at Paris in the 1370s, and subsequently revised (Bks. II–IV ed. and [German] tr. Damerau 1980). Also extant and largely unedited are various ecclesiastical treatises, many defending Urban IV and suggesting ways of achieving ecclesiastical peace during the papal schism, as well as some brief philosophical–scientific treatises.

Secondary sources. Pirzio, "Le prospettive filosofiche" (1969); Shank, *Unless You Believe* (1988); Steneck, *Science and Creation* (1976); BBK (Bautz).

HENRY OF LÜBECK *fl.* 1312–36. Dominican theologian. German provincial minister 1325–36. Only extant works are three very wide-ranging and philosophically interesting

Quodlibeta [1312/25] (ed. in progress), probably delivered at the *studium generale* in Cologne.

Secondary sources. Bucichowski, "Le principe d'individuation" (1975); Friedman, "Dominican Quodlibetal Literature" (2007); Sturlese, "Gottebenbildichkeit" (1977); Kaeppeli.

HENRY RUYN OF ROSTOCK (of Runen) *fl.* 1430s–40s. Erfurt master, 1430s–40s. Extant works include a *Disputata Metaphysicae* [before 1438] (ed. Tabarroni 1991).

HENRY OF SUSA, *see* Hostiensis.

HENRY SUSO (Seuse) b. Swabia, *ca.* 1295; d. Ulm, 1366. Dominican mystic. A Dominican novice at thirteen; experienced a radical conversion at eighteen, followed by a decade of intense contemplation and self-deprivation. Studied at Cologne 1324–8, where he met John Tauler and perhaps studied under Eckhart. Lector and then prior at Constance until moving to Ulm [1348]. His works (German works ed. Hofmann 1966) include a theological dialogue, *Das Büchlein der Wahrheit* [1328]; the immensely popular devotional treatise *Das Büchlein der ewigen Weisheit* [1327–34] (both tr. Clark 1953), translated into Latin as the *Horologium sapientiae* (ed. Künzle 1977); and *Das Briefbüchlein* [1362]. His autobiography, compiled with his cooperation by the Dominican nun Elsbeth Stagel, a close friend and disciple, is *Das Buch von dem Diener* [1362] (tr. Clark 1952).

Secondary sources. Filthaut (ed.), *Seuse-Studien* (1966); Haas, *Nim din selbes war* (1971); Kieckhefer, *Unquiet Souls* (1984); Tobin, "Henry Suso and Elsbeth Stagel" (1999); Kaeppeli; REP (Bussanich).

HENRY TOTTING OF OYTA b. Oyta (Lower Saxony); d. 1397. Arts master and theologian. Studied in Erfurt and Prague. Master of arts at Prague in 1365. Bachelor of theology in 1371, when he was accused of heresy in Avignon, but subsequently acquitted. Subsequently studied theology in Paris, returning to Prague *ca.* 1381, becoming professor of theology there and subsequently in Vienna, from 1384. Extant works include a wide range of Aristotelian commentaries (unedited), a set of questions on the *Isagoge* (ed. Schneider 1979), and both a literal commentary and the more usual question-commentary on the *Sentences* (all unedited). Also the editor of a popular abbreviation of Adam Wodeham's *Sentences* commentary (ed. Major 1512).

Secondary sources. Lang, *Heinrich Totting von Oyta* (1937); Maierù, "Logica aristotel-ica" (1981); Lohr; Weijers.

HERMANN OF CARINTHIA (of Dalmatia, Hermannus Dalmata, Sclavus, Secundus) b. St. Peter im Holz (southern Austria), *ca.* 1110; d. after 1143. Scientist, philosopher, Arabic translator. Student of Thierry of Chartres in the 1130s; probably learned Arabic in Spain; subsequently moved to the south of France in the early 1140s. Principal translations include Ptolemy's *Planisphere* [1143] (ed. Heiberg 1907), Abū Maʿshar's *Greater Introduction to Astrology* (ed. Lemay 1995), and probably Euclid's *Elements* (ed. Busard 1967–77) (see Appendix B4). Main philosophical work is his *De essentiis* [1143] (ed. and tr. Burnett 1982), a treatise on the origins of the world and human nature.

Secondary sources. Burnett, "Hermann of Carinthia" (1988); DMA (Caiazzo); Dronke.

HERMANN THE GERMAN (Hermannus Alemannus) *fl.* 1240s–60s. Translator from Arabic into Latin. Worked in Toledo. Likely the same Hermannus who became bishop of Astorga (Léon) in 1266 and died in 1272. Translations include the *Rhetoric*, with fragments of Averroes's middle commentary; the *Summa Alexandrinorum*, an Arabic epitome of the *Ethics* [1243/4]; Averroes's middle commentary on the *Poetics* [1256]; and probably his middle commentary on the *Ethics* [1240] (see Appendices B1 and B4).
    Secondary sources. Dod, "Aristoteles Latinus" (1982).

HERMANN OF REICHENAU (Hermannus Contractus, Hermann the Lame) b. Altshausen (Swabia), 1013; d. Reichenau, 1054. Scholar, composer, mathematician, astronomer. Born into nobility. Severely disabled from birth. Entered into the abbey of Reichenau at age seven, eventually becoming abbot in 1043. A composer, he also wrote treatises on music (ed. and tr. Ellinwood 1936), mathematics, astronomy, and history. An extensive web site, including texts, is at http://flaez.ch/hermannus/.
    Secondary sources. Germann, *De temporum ratione* (2006) (edits several treatises).

HERVAEUS BRITO d. 1276 (?). Master of arts at Paris. Author of several commentaries on the *Ars vetus* (unedited), and a brief *Philosophia* (ed. Lafleur and Carrier, in "La 'Philosophia'" 1994–5). Perhaps to be identified with Hervaeus Sophista.
    Secondary sources. Lohr; Weijers.

HERVAEUS NATALIS (Hervé, Harvey Nedellec) b. Brittany, *ca.* 1250/60; d. Narbonne, 1323. French theologian and champion of Aquinas. Entered the Dominican order in 1276. Lectured on the *Sentences* at Paris, probably in 1302–3, becoming regent master in 1307–9 and again in 1316–18. He headed the Dominican's French province in 1309–18, and served as master general in 1318–23. Regarded as an early Thomist, Hervaeus is at the same time an original, independent thinker. A vast and wide-ranging body of work has survived, most prominently his *Sentences* commentary [1303–4; rev. 1309] (ed. 1647/1966), many *Quodlibeta* [1307–9] (ed. 1513/1966), a *Defensio doctrinae fr. Thomae* [1303–12] (ed. Piccari 1995), and a large number of treatises on philosophical and theological topics (including *De intellectu et specie* [ed. Stella, "La prima critica" 1959]; *De secundis intentionibus* [ed. and tr. Doyle 2008]; and eight others edited with the *Quodlibeta*). His long engagement with ecclesiastical issues yielded further treatises, including *De iurisdictione* [1311] (ed. Hödl 1959), *De potestate papae* [*ca.* 1319] (ed. with *Sentences*), and *De paupertate Christi et apostolorum* [1322] (ed. Sikes 1937–8; tr. Jones 1999).
    Secondary sources. Allen, "Notion of Being" (1960); Conforti, "*De cognitione primi principii*" (1997), "Natural and Theological Knowledge" (1999); Friedman, "Dominican Quodlibetal Literature" (2007); Henninger "Hervaeus Natalis" [Individuation] (1994); Kelley, "Some Observations on the Fictum Theory" (1978); Lowe, *Contested Theological Authority* (2003); Mannath, "Proofs for the Existence of God" (1969); Perler, "Peter Aureol vs. Hervaeus Natalis on Intentionality" (1994); Plotnik, *Controversies over the Real Presence* (1970); Schöllgen, *Das Problem der Willensfreiheit* (1927/1975); Senko, "L'essence

et l'existence" (1961); Trottmann "Verbe mentale" (1997); Wengert "Three Senses of Intuitive Cognition" (1983); BCPMA (Teske); DMA (Bonino); Kaeppeli; REP (Perler); Roensch; Weijers.

HERVAEUS SOPHISTA *fl.* 1220s. Paris arts master. Author of a collection of sophisms known as the *Abstractiones* (unedited). Perhaps to be identified with Hervaeus Brito.
   Secondary sources. De Libera, "Les *Abstractiones*" (1986); Weijers.

HEYMERIC DE CAMPO (van de Velde) b. near Eindhoven (Low Countries), *ca.* 1395; d. Leuven, 1460. Theologian and leading reviver of Albertism. Studied arts and theology at Paris, beginning *ca.* 1410. Moved to Cologne in 1422, becoming master of theology there in 1428. Rector at Cologne in 1432. Professor at the University of Louvain from 1435 to 1460, and was rector five times. Author of around fifty works ranging over philosophy, theology, and ecclesiastic politics. Friend of Nicholas of Cusa. His *Problemata inter Albertum Magnum et Sanctum Thomam* (*Tractatus problematicus*) [*ca.* 1425] (ed. 1496, etc.) takes the Albertist side in the controversy with Thomism, and became the fundamental work for later Albertism. Other works include the *Reparationes totius naturalis philosophiae* (ed. 1494), as well as a large metaphysics handbook, the *Compendium divinorum* [1420–2] (ed. Korolec 1967–8); a treatise on the trinity, *De signis notionalibus* (ed. Hoenen 1998); and a catalogue of one hundred fifteenth-century theologies, the *Centheologicon* [after 1453] (unedited). Also authored a defense of Birgitta of Sweden's *Revelationes* [1434/5] (ed. Fredricksson Adman 2003). A first volume of selected works has recently been published (ed. Imbach and Ladner 2001–).
   Secondary sources. Burie, "Proeve tot inventarisatie" (1977); Cavigioli, "Les écrits" (1981); Cavigioli and Imbach, "Quelques compléments" (1981); Hamann, *Das Siegel* (2006); Hoenen, *Heymeric van de Velde* (1990), "Academics and Intellectual Life" (1994), "Academic Theology" (2002); Ladner, *Revolutionäre Kirchenkritik?* (1985); BCPMA (Casarella); DMA (Hoenen); Weijers.

HILDEGARD OF BINGEN b. Bermersheim (Germany), 1098; d. near Bingen, 1179. Benedictine nun and influential abbess, renowned for her mystical visions and for her theological, scientific, political, and musical contributions. Entered a hermitage at the age of eight, and a Benedictine convent at fourteen. Beginning in the 1140s, she became an influential public figure, completing four preaching tours throughout Germany and engaging in extensive correspondence with religious and political leaders across Europe – unprecedented roles at the time for a woman. Founded her own convent at Rupertsberg, near Bingen *ca.* 1150. Her three major works describe in detail and present allegorical commentaries on her mystical visions, which had begun at the age of five. These works are *Scivias* [1141–51] (tr. Hart and Bishop 1990); *Liber vitae meritorum* [1158–63] (tr. Hozeski 1994); *Liber divinorum operum* [1163–73] (part. tr. Cunningham and Fox 1987). All three are edited in the *Corpus Christianorum*, as is a contemporary biography by Godefridus and others (ed. Klaes 1993; tr. McGrath and Palmquist 1995) and her extensive letters (tr. Baird and Ehrman 1994–), which are often of philosophical interest. Also authored two scientific/medical treatises, *Physica* (ed. PL 197; tr. Throop 1998) and *Causae et curae* (ed. Moulinier and Berndt 2003; part. tr. Berger 1999) [both 1150–60],

as well as numerous poems and hymns, some of which Hildegard set to music. Many popular treatments of her life and work are available.

Secondary sources. Dronke, *Women Writers* (1984); Gössmann, "Hildegard of Bingen" (1989); McInerney (ed.), *Hildegard of Bingen* (1998); Maddocks, *Hildegard of Bingen* (2001); Newman, *Sister of Wisdom* (1987); Newman (ed.), *Voice of the Living Light* (1998); BCPMA (Milem); REP (Murphy).

HILLEL BEN SAMUEL OF VERONA b. *ca.* 1220; d. 1295. Physician, translator, philosopher, Talmudic scholar. Studied medicine at Montpellier; subsequently lived in Barcelona and in various Italian cities. His major work is the *Tagmule ha-Nefesh* (*The Rewards of the Soul*) [1291] (ed. Sermoneta 1981), a study of the soul's nature and its fate after death. Also translated many texts from Latin into Hebrew.

Secondary sources. Sermoneta, "Hillel ben Shemuel" (1962); REP (Rigo).

HINCMAR OF RHEIMS b. 806; d. Epernay, 882. Archbishop of Rheims and influential theologian. Educated at the abbey of St. Denis, he subsequently attained influence at the imperial court, becoming an advisor to Charles the Bald in 840 and archbishop in 845. Hincmar was at the center of various ecclesiastical controversies, notably the condemnation of Gottschalk of Orbais in 848–9 for his views on predestination. Hincmar's own first treatise on predestination [857–8] is not extant, but we have a later treatise, *De praedestinatione Dei et libero arbitrio* (PL 125). Other extant works include *De cavendis vitiis et virtutibus exercendis* (ed. Nachtmann 1998) and a large collections of letters (ed. Perels 1975–).

Secondary sources. Devisse, *Hincmar, archevêque de Reims* (1975–6); Ganz, "Debate on Predestination" (1990); Schrörs, *Hinkmar, Erzbischof von Reims* (1884); Tavard, *Trina Deitas* (1996).

HONORIUS AUGUSTODUNENSIS (of Autun) b. *ca.* 1080; d. Regensburg, *ca.* 1157. English, or perhaps German, scholar with wide-ranging interests in philosophy and theology. Studied at Anselm's school in Canterbury; subsequently lived in a convent in Regensburg. Two encyclopedic works were widely circulated and translated into vernacular languages: the *Imago mundi* (ed. Flint 1982), a treatise on cosmography, meteorology, and astronomy; and the *Elucidarium* (ed. Lefèvre 1954), a summary in dialogue form of Christian theology. Most philosophically significant work is the *Clavis physicae* (ed. Lucentini 1974), a compendium of Eriugena's *Periphyseon*. His vast corpus is collected in PL 172.

Secondary sources. Endres, *Honorius Augustodunensis* (1906); Flint, *Honorius Augustodunensis* (1995); Sanford, "Honorius" (1948); DMA (Beyer de Ryke); Dronke.

HOSTIENSIS (Henry of Susa, de Segusio) b. *ca.* 1200; d. Lyon, 1271. Eminent canon lawyer. Studied law in Bologna in the 1220s. Archdeacon of Paris by 1239; seems to have spent time in England in the royal household. Chaplain to Innocent IV, with whom he had studied in Bologna. Elected bishop of Sisteron in 1243/4, served as archbishop of Embrun in 1250–61, and finally as cardinal-bishop of Ostia in 1262–71 (the origin of his customary name). His two most important works are the *Summa aurea* [*ca.* 1253], on

the Decretals of Gregory IX (ed. 1537/1962, etc.), and the *Lectura* or *Commentaria* on the Decretals [rev. 1271] (ed. 1581/1965, etc.).

Secondary sources. Gallagher, *Canon Law* (1978); Pennington.

HRABANUS MAURUS b. Mainz, *ca.* 783; d. Mainz, 856. Teacher and ecclesiastical authority. Educated in the monastery of Fulda from an early age. Took part in the circle of Charlemagne; studied with Alcuin at Tours *ca.* 800. Returned to Fulda at Alcuin's death in 804, eventually becoming abbot in 822. Elected archbishop of Mainz from 847 to 856. Among his many works (PL 107–12) are the encyclopedic *De rerum naturis* or *De universo* [842–6], a *De praedestinatione* [842] aimed at refuting the views of Gottschalk, and a large number of biblical commentaries.

Secondary sources. Bohne (ed.), *Hrabanus Maurus* (1980); Felten (ed.), *Hrabanus Maurus* (2006); Luscombe, "Predestination Controversy" (2006); Ribémont, *Les origines des encyclopédies médiévales* (2001); DMA (Morelle and Bouhot).

HUGH ETHERIAN b. Pisa; d. Constantinople, 1182. Theologian influential on controversies over the Trinity. Studied in Paris in the 1150s; moved to Constantinople *ca.* 1160. Authored a work on the Trinity, the *Liber de differentia naturae et personae* [1170s] (ed. Häring 1962), which was used in support of Gilbert of Poitiers's controversial views. Also wrote an influential work on the Trinitarian controversy dividing the Orthodox and Catholic churches, *De haeresibus quas Graeci in Latinos devolvunt* [*ca.* 1177] (ed. PL 202), and a treatise *Contra Patarenos* (ed. and tr. Hamilton *et al.* 2004).

Secondary sources. Dondaine, "Hugues Éthérien" (1952), *Écrits de la "petite école"* (1962); Marenbon, "Note on the Porretani" (1988).

HUGH OF HONAU (Hugo Honaugiensis) b. near Strasbourg *ca.* 1125; d. after 1180. Student of Gilbert of Poitiers, member of the so-called "little school" of Porretani. Visited Constantinople twice on diplomatic missions (1171, 1179), returning to Germany the second time with Hugh Etherian's *Liber de differentia naturae et personae*. Subsequently authored his own work with a similar title [*ca.* 1180] (ed. Häring 1962), relying heavily on patristic sources that he collected in his *Liber de homoysion et homoeysion* [before 1179] (ed. Häring 1967–8). More philosophical is his brief *Liber de ignorantia* [*ca.* 1180] (ed. Häring 1963). Also surviving are two letters from the 1170s to Hugh Etherian (ed. in Hugh Etherian 1962).

Secondary sources. Marenbon, "Note on the Porretani" (1988).

HUGH OF LAWTON (Lanton) *fl.* 1320s. Dominican theologian. Lectured on the *Sentences* at Oxford, 1326/30. Portions of those lectures are extant but unedited (save for excerpts in secondary sources).

Secondary sources. Gelber, "I Cannot Tell a Lie" (1984), "Eternal Questions" (1990), *It Could Have Been Otherwise* (2004); Schabel and Friedman, "Trinitarian Theology V" (2005); Kaeppeli.

HUGH OF NOVUM CASTRUM b. *ca.* 1280; d. after 1322. Franciscan theologian, a disciple of Scotus. Almost nothing is known about his life. Regent master of theology at Paris

ca. 1321–2. His lectures on the *Sentences* in Paris [1307/17] (unedited) survive in many manuscripts and in two redactions.

Secondary sources. Heynck, "Der Skotist" (1961); Schabel and Rossini, "Time and Eternity" (2005); FA.

HUGH RIPELIN OF STRASBOURG b. Alsace, *ca.* 1200/10; d. 1268. Dominican theologian. Prior of the Zurich convent for many years beginning in 1232; prior of the Strasbourg convent in 1261. Author of the widely circulated *Compendium theologicae veritatis* [1265/70] (ed. in Albert the Great, ed. Borgnet vol. XXXIV, etc.), a straightforward summary of early Dominican theology.

Secondary sources. Steer, *Hugo Ripelin von Strassburg* (1981); BBK; Kaeppeli.

HUGH OF ST. CHER b. near Vienne, *ca.* 1190; d. Orvieto, 1263. Early Dominican theologian. Studied in Paris; became doctor of law there before 1226. Entered the Dominican order in 1225, and served as French provincial in 1227–30 and again in 1236–44. Read the *Sentences* in 1229–30 (unedited), and served as master of theology from 1230 to 1235. Named cardinal in 1244. In addition to his *Sentences* commentary and a set of disputed questions [*ca.* 1230] (unedited), surviving works include a great many biblical commentaries (ed. 1669 in 8 vols., etc.), an influential concordance on the Bible (ed. Lucas and Phalèse 1837, etc.), a *Speculum ecclesiae* on the mass (ed. Sölch 1940), a treatise *De prophetia* (ed. Torrell 1977), and various sermons (unedited).

Secondary sources. Bataillon *et al.* (eds.), *Hugues de Saint-Cher* (2004); Fisher, "Development" (1956); Principe, *Hypostatic Union* (1970); Quinto, "Use of Stephen Langton" (1999); DMA (Dahan); DTC (Mangenot); Kaeppeli; Glorieux.

HUGH OF ST. VICTOR b. Saxony, *ca.* 1096; d. Paris, 1141. Wide-ranging theologian, influential teacher, and mystic. Entered the abbey of St. Victor in Paris between 1115 and 1118, where he studied with William of Champeaux. Served as prior there from 1133. The founding intellectual figure in the "Victorine" school, concerned more with the fundamentals of education than with philosophical or theological controversies. Two most important philosophical works are his *summa* of theology, *De sacramentis christianae fidei* [1130–3] (ed. PL 176; tr. Deferrari 1951), and the *Didascalicon de studio legendi* [1120–5] (ed. Buttimer 1939; tr. Taylor 1961), which defines the parts of philosophy and its relationship to Christian teachings. Briefer works include an epitome of philosophy and treatises on geometry (tr. Homann 1991) and grammar (all three edited by Baron 1966); a *De contemplatione et eius speciebus* (ed. Baron 1958); various spiritual works, including *Noah's Ark* (ed. Sicard 2001; tr. 1962); and *De tribus diebus* (ed. Poirel 2001), a meditation on creation. The full corpus is edited in PL 175–7.

Secondary sources. Baron, *Science et sagesse* (1957), *Études sur Hugues de Saint-Victor* (1963); Ehlers, *Studien zum Geschichtsdenken* (1973); Girolimon, "*De sacramentis*" (1994); Goy, *Überlieferung* (1976); Hofmeier, *Die Trinitätslehre* (1964); Illich, *In the Vineyard* (1993); Moore, *Jews and Christians* (1998); Rudolph, *First, I Find the Center Point* (2004); Schütz, *Deus absconditus* (1967); Sicard, *Hugues de Saint-Victor* (1991); BCPMA (Gorman); Dronke; REP (Jordan).

HUGOLIN OF ORVIETO (de Urbe Veteri) b. Orvieto, *ca.* 1300; d. Acquapendente (Viterbo), 1373. Theologian and philosopher. An Augustinian Hermit, sent to study at Paris *ca.* 1334–6. Lectured on the *Sentences* at Paris in 1348–9, becoming master of theology in 1352. In 1357 he directed the Augustinian *studium* in Perugia, and in 1364 he co-founded the theology faculty in Bologna, subsequently teaching there. Appointed general of the Augustianian Hermits in 1368 and patriarch of Constantinople in 1371. Principal work is his *Sentences* commentary (ed. Eckermann 1980–8). A commentary on the *Physics* is also extant [1352] (part. ed. Eckermann, in *Physikkommentar* 1972), as is a treatise *De Deo trino* [1372] (ed. Stegmüller, in "Tractatus" 1954) and various sermons (unedited).

Secondary sources. Eckermann, *Schwerpunkte* (1990); Eckermann and Hucker (eds.), *Hugolin von Orvieto* (1992); Zumkeller, *Theologische Erkenntnislehre* (1941); Lohr.

HUGUCCIO d. 1210. Influential canon lawyer. Taught in Bologna in the 1180s, becoming bishop of Ferrara in 1190. Principal work is his *Summa* on Gratian's *Decretum* [*ca.* 1188–90] (ed. Přerovský 2006–), which he left incomplete upon becoming bishop. Sometimes identified with Huguccio of Pisa, the author of various grammatical treatises [*ca.* 1160] (unedited), but this is doubtful.

Secondary sources. Müller, "Huguccio of Pisa" (1991); Pennington.

HUMBERT OF ROMANS b. Romans (Vienne), *ca.* 1200; d. Valence, 1277. Dominican ecclesiastical leader. A student in Paris by 1215. Entered the Dominican order in 1224. Elected provincial minister first of the Roman province in 1240, then of the French province in 1244, and ultimately minister general in 1254–63, a position he voluntarily resigned, retiring to the monastery of Valence. Notable among his many works are his sermons (part. ed. Casagrande, in *Prediche* 1978) and the *Liber de eruditione praedicatorum* [1263] (ed. Berthier 1888/1956), a theoretical treatise on preaching.

Secondary sources. Heintke, *Humber von Romans* (1933); Betts, *Humbert of Romans* (1984); Kaeppeli.

ḤUNAYN IBN ISḤĀQ AL-ʿIBĀDĪ (Johannitius) b. al-Ḥīra (Iraq), 808; d. 877. Prolific translator and leading medical authority. A Nestorian Christian; studied medicine in Baghdad, until he was forced to leave, allegedly for asking too many questions. Journeyed to Alexandria, where he became fluent in Greek. Returning to Baghdad, he completed his studies, eventually becoming chief court physician. Ḥunayn translated hundreds of works from Greek into Arabic and Syriac, especially in medicine but also in philosophy, astronomy, and mathematics. (His own account of these activities is extant [ed. and (German) tr. Bergsträsser 1925].) Also produced treatises of his own, the most influential of which is *Al-Masāʾil fī al-ṭibb* (*Questions on Medicine*) (ed. Abū Rayyān *et al.* 1978; tr. Ghalioungui 1980). Fragments of this became an important Latin medical text under the title *Isagoge ad artem Galeni* (ed. Maurach 1978). His son, Isḥāq ibn Ḥunayn, would also become an eminent translator and physician.

Secondary sources. Bergsträsser, *Hunain ibn Ishak und seine Schule* (1913); Gutas, *Greek Thought* (1998); Saʿdi, "Bio–Bibliographical Study" (1934); DSB (Anawati and Iskandar); EI (Strohmaier).

IBN AL-ʿARABĪ (Muḥyi al-Dīn) b. Murcia (southeast Spain), 1165; d. Damascus, 1240. Prominent Sufi mystic and wide-ranging author. An early mystical experience shaped the course of his subsequent life. After periods in Seville and North Africa, he made the pilgrimage to Mecca in 1202 and subsequently lived in Baghdad and Anatolia before ultimately moving to Damascus. Principal works are *Al-Fuṣūṣ al-ḥikam* (*The Ringstones of Wisdom*) [1229] (ed. Affifi 1946; tr. Austin 1980, etc.) and the massive *Al-Futūḥāt al-makkiyya* (*The Meccan Revelations*) [1231; rev. 1238] (ed. Yahia 1972–91; part. tr. Chodkirwicz *et al.* 2002–4).

Secondary sources. Addas, *Quest for Red Sulphur* (1993); Affifi, *Mystical Philosophy* (1938); Bashier, *Ibn al-ʿArabī's Barzakh* (2004); Chittick, *Sufi Path of Knowledge* (1989), *Imaginal Worlds* (1994); Chodkiewicz, *Ocean without Shore* (1993); Corbin, *Creative imagination* (1969); Rizvi, "Mysticism and Philosophy" (2005); Yousef, *Time and Cosmology* (2007); BEIP (Hirtenstein); EI (Ateş); HIP (Chittick); REP (Robinson); SEP (Chittick).

IBN BĀJJA, Abū Bakr Muḥammad ibn al-Ṣāʾigh (Avempace) b. Saragossa, 1085/90; d. Fez, 1139. Founding philosopher in the Western Islamic tradition. Lived in Seville and Granada; imprisoned several times for political views. Spent his last years in Fez, where he is said to have died from poisoning by a rival. His surviving work includes medical treatises, commentaries on Aristotle and al-Fārābī, and original philosophical treatises. Prominent among these are three works apparently written toward the end of his life: the unfinished ethico-political treatise, *Tadbīr al-mutawaḥḥid* (*Governance of the Solitary*) (part. tr. Berman 1963), the *Risālat al-wadāʾ* (*Essay on Bidding Farewell*), and the *Risālat al-ittiṣāl al-ʿaql al biʾl-insān* (*Essay on the Conjunction of the Intellect with Human Beings*) (all three ed. Fakhry 1968). His commentaries on Aristotle include the *Physics* (part. ed. Lettinck, in *Aristotle's Physics* 1994), the *Meteorology* (ed. and tr. Lettinck, in *Aristotle's Meteorology* 1999), the *De generatione et corruptione* (ed. and [Sp] tr. Montada 1995), and the *De anima* (*Kitāb fī al-nafs*) (ed. al-Maʿṣūmī 1960/1999; tr. al-Maʿṣūmī 1961/1999). Among the many shorter treatises are *Man's Ultimate Felicity* (tr. Altmann, in "Ibn Bajja" 1965). Many more works are available in Spanish translation, while many others remain unedited.

Secondary sources. al-ʿAlawi, *Muʾallafat* (1983) [works]; Harvey, "Place of the Philosopher" (1992); Leaman, "Society and Philosophy" (1980); Montada, "Philosophy in Andalusia" (2005); Moody, "Galileo and Avempace" (1951); Sezgin (ed.), *Ibn Bajja* (1999); Zainaty, *La morale d'Avempace* (1979); BCPMA (Hamid); BEIP (Akbaş); EI (Dunlop); HIP (Goodman); REP (Inati); SEP (Montada).

IBN FŪRAK (Abū Bakr Muḥammad) b. Isfahan, *ca.* 941; d. 1015. Ashʿarite theologian who sought to systematize al-Ashʿarī's views. Studied in Basra and Baghdad, before taking charge of a *madrasa* built for him in Nishapur. Allegedly poisoned after a debate in Ghazni against the Karrāmiyya sect, he died while returning to Nishapur. Principal works are the *Kitāb mushkil al-ḥadīth* (*Ambiguity of the Hadith*) (ed. Gimaret 2003); the *Mujarrad maqālāt al-Ashʿarī* (*Summary of Ashʿarī's Treatises*) (ed. Gimaret 1986); and the *Kitāb al-ḥudūd fī al-uṣūl* (*Book of Definitions on the Foundations of Law*) (ed. al-Sulaymānī 1999).

Secondary sources. Gimaret, *La doctrine d'al-Ashʿarī* (1990); BEIP (İskenderoğlu); EI (Watt).

IBN GABIROL, *see* Solomon ibn Gabirol.

IBN ḤANBAL (Aḥmad) b. Baghdad, 780; d. Baghdad, 855. Theologian and jurist, founder of the Hanbali school of religious law. An Arab, he was educated in Baghdad, and traveled widely from an early age studying the prophetic tradition (*ḥadīth*). His opposition to the Muʿtazilite theory of the divine attributes resulted in his persecution for many years, and he became renowned for his defense of traditional Sunnī beliefs. Most famous of his works is his vast collection of traditional sayings, the *Musnad* (ed. 1949–56, etc.). His principal theological work is the *Kitāb al-sunna* (*Book of Theological Traditions*) (ed. Qahtani 1986).

Secondary sources. Hallaq, *Origins and Evolution of Islamic Law* (2005); Melchert, *Ahmad ibn Hanbal* (2006); BEIP (Kiliç); EI (Laoust).

IBN AL-HAYTHAM, Abū ʿAlī al-Ḥasan ibn al-Ḥasan (Alhacen, Alhazen) b. Basra, 965; d. Cairo, *ca.* 1040. Natural philosopher and mathematician, famous for his work in optics. Very little about his life is known, although it is generally thought that he left modern-day Iraq for Egypt *ca.* 1021, and subsequently lived a withdrawn, scholarly life at the Azhar mosque in Cairo, from which period most of his vast corpus dates. Lists have survived of over 180 treatises, largely scientific and mathematical, a good number of which are extant. His scientific–philosophical masterpiece is the *Kitāb al-manāẓir* (*Book of Optics*) [1028/38] (Bks. I–V ed. Sabra 1983–2002; Bks. I–III tr. Sabra 1989) – translated into Latin before 1200 as the *De aspectibus* (Bks. I–VI ed. and tr. Smith 2001–8) – which, over the course of seven books, presents a highly sophisticated treatment of mathematical optics and the psychology of visual perception. This would serve as the fundamental treatise on these topics until the seventeenth century. Many other works are extant, mostly in Arabic, including a study of conics (ed. and tr. Hogendijk 1985) and a cluster of short treatises on burning mirrors and lenses. The astronomical treatise *Maqāla fī hayʾat al-ʿālam* (*On the Configuration of the World*) (ed. and tr. Langermann 1990) seems to have been written by someone else.

Secondary sources. Lindberg, *Theories of Vision* (1976); Omar, *Optics* (1977); Rashed, *Géométrie et dioptrique au Xᵉ siècle* (1993), *Les mathématiques infinitésimales* (1993–2006, in 6 vols.); Sabra, *Optics* (1994) [collected papers]; Schramm, *Weg zur Physik* (1963); BCPMA (Lindberg); DSB (Sabra); EI (Vernet).

IBN ḤAZM (Abū Muḥammad ʿAlī ibn Aḥmad ibn Saʿīd) b. Cordoba, 994; d. 1063. Influential jurist and philosopher. After a stormy political career in Cordoba, during which he was imprisoned and exiled on multiple occasions, he left politics and devoted himself to scholarly pursuits. Most influential as the leading exponent of the Zahirite school of jurisprudence, which insists on a literal reading of religious texts. In philosophy, one of his best-known works is a treatise on love, *Ṭawq al-hamāma* (*The Dove's Neck Ring*) (ed. Bercher 1949; tr. Arberry 1953/1997). Also composed an ethical treatise, *Kitāb al-akhlāq wa-al-siyar* (*Book of Morals and Behavior*) (ed. Tomiche 1961; tr. Abū Laylah 1990);

a study of the different branches of science, *Marātib al-ʿulūm* (*The Categories of the Sciences*) (ed. and tr. Chejne 1982); a study of differences among religions, the *Kitāb al-fiṣal fī al-milal wa-al-aḥwāʾ wa-al-niḥal* (*Book of Distinctions between Religions and Sects*) (ed. and part [Sp] tr. Asín Palacios 1927–32); and lengthy polemics against Judaism and Christianity.

   Secondary sources. Aasi, *Muslim Understanding* (1999); Adang, *Muslim Writers* (1996); Arnaldez, *Grammaire et théologie* (1984); Behloul, *Evangelienkritik* (2002); Chejne, *Ibn Hazm* (1982), "Ibn Hazm on Logic" (1984); Hourani, "Reason and Revelation" (1985); Pulcini, *Exegesis as Polemical Discourse* (1998); EI (Arnaldez); REP (Leaman and Albdour).

IBN JAMĀʿA (Badr al-Dīn Muḥammad) b. Hamat (northern Syria), 1241; d. 1333. Leading member of a family of jurists from the Mamluk period. Studied in Damascus. Appointed chief judge in Egypt and Damascus. Author of numerous works on Islamic law, most prominently the *Taḥrīr al-aḥkām fī tadbīr ahl al-Islām* (*Summary of the Rules for the Governance of the People of Islam*) (ed. and [German] tr. Kofler 1934–8).

   Secondary sources. Lambton, *State and Government* (1981); EI (Salibi).

IBN KAMMŪNA (Saʿd ibn Manṣūr) d. 1284. Physician and scholar. A Jew who spent most of his life in Baghdad. The *Tanqīḥ al-abḥāth li al-milal al-thalāth* (*Examination of the Inquiries into the Three Faiths*) [1280] (ed. Perlmann 1967; tr. Perlmann 1971) is a comparative study of Islam, Judaism, and Christianity. Despite its dispassionate tone, its criticisms of Islam provoked riots in Baghdad. Also extant is a treatise on the immortality of the soul (ed. Nemoy 1944; tr. Nemoy 1958) and lengthy commentaries on al–Suhrawardī (ed. Ziai and Alwishah 2003) and Avicenna (unedited).

   Secondary sources. EI (Perlmann); REP (Langermann).

IBN KHALDŪN (Walī al-Dīn ʿAbd al-Raḥmān) b. Tunis, 1332; d. Cairo, 1406. Sociologist, historian, and philosopher. Studied in Tunis, then served in the Merinid court in Fez in 1354–62. Served the sultan of Granada for two years before returning to North Africa. After more than a decade of political turmoil and intrigue, departed for Egypt, where he continued to live an active political life and to serve as teacher and judge. Deeply versed in Islamic culture, his work attempts to understand the social and cultural legacy of Islam. His chief work is a history of the Arabs and Berbers, the *Kitāb al-ʿibar* (*Book of Advice*) (ed. 1961), whose very long methodological introduction (the *Muqaddima*) [1374–8] (tr. Rosenthal 1967) is his philosophical masterpiece. His philosophical ideas were deeply influenced by both Averroes and al-Ghazālī but tended to follow the latter, as in his most prominent discussion of mysticism, the *Shifāʾ al-sāʾil* (*The Healing of the Seeker*) [*ca.* 1373] (ed. al-Ṭanjī 1958; tr. [Fr] Pérez 1991).

   Secondary sources. al-Azmeh, *Ibn Khaldūn in Modern Scholarship* (1981) [bibliography, etc.], *Ibn Khaldūn: Essay* (1990); Issawi, *Arab Philosophy of History* (1986); Lacoste, *Birth of History* (1984); Lawrence, *Islamic Ideology* (1984); Mahdi, *Philosophy of History* (1957); Nassar, *La pensée réaliste* (1967); Rosenthal, "Theory of the Power-State" (1956); BEIP (Ahmad); EI (Talbi); HIP (Lakhsassi); REP (Issawi and Leaman).

IBN MASARRA (Muḥammad ibn ʿAbd Allāh) b. Cordoba, 883; d. near Cordoba, 931. Formative Andalusian philosopher and mystic. An influential teacher, he founded a

hermitage near Cordoba for friends and students. Although his works were viewed with suspicion, it was only after his death that his followers were subject to persecution. Two works are extant: *Risālat al-iʿtibār* (*On Reflection*) and *Khawāṣṣ al-ḥurūf* (*Characteristics of Letters*) (both ed. Jaʿfar 1982).

Secondary sources. Asín Palacios, *Mystical Philosophy* (1978); BEIP (Leaman); EI (Arnaldez); HIP (Goodman); REP (Atiyeh).

IBN MISKAWAYH, *see* Miskawayh.

IBN AL-MUQAFFAʿ b. Firuzabad (Persia), *ca.* 720; d. Basra, *ca.* 756. Prolific translator and scholar. A career in government made him rich, but also involved him in political conflict that led him to be executed at a young age. Author of many translations from Middle Persian into Arabic, although the traditional ascription of a synopsis of the Organon is probably incorrect. Several of his own treatises are also extant, including a mirror for princes, *Al-Adab al-kabīr* (*The Greater Work on Courtly Manners*) (ed. Fawwāl 1994).

Secondary sources. Gabrieli, "L'opera" (1931–2); Kraus, "Zu Ibn al-Muqaffaʿ" (1934); BEIP (Cooperson); EI (Gabrieli).

IBN AL-RĀWANDĪ b. Rawand (near Isfahan); d. *ca.* 910. Notorious atheist and critic of Islam. Little is known of his life other than that he lived in Baghdad. Initially an adherent of Muʿtazilism, he later became its opponent and an opponent of religion in general. Of the more than 100 books he is said to have written, only parts of a few remain. Most important of these is the *Faḍīḥat al-muʿtazila* (*The Scandal of the Muʿtazilites*) (ed. Nyberg 1925; tr. [Fr] Nadir 1957), which has survived largely intact. Subsequent authors attack Ibn al-Rāwandī ruthlessly for his opposition to Islam and lack of faith.

Secondary sources. al-Aʿsam, *History of Ibn ar-Riwandi* (1975); Stroumsa, *Freethinkers* (1999); BEIP (Leaman); EI (Kraus); REP (Inati).

IBN RUSHD, *see* Averroes.

IBN SABʿĪN (ʿAbd al-Ḥaqq ibn Ibrāhīm) b. Murcia (Spain), 1217/18; d. Mecca, 1269/71. Leading Sufi philosopher. Studied in Spain, where he acquired a reputation for learning, but was forced into exile *ca.* 1248 in Ceuta (northwest Africa). Forced to leave again, he traveled east to Tunis, Egypt, and finally Mecca. Although he acquired many students, controversy followed him the entire way. Most important philosophical work is the *Budd al-ʿārif* (*Escape of the Gnostic*) (ed. Kattūra 1978). Also extant is a philosophical correspondence with Frederick II of Sicily (ed. and [German] tr. Akasoy, in *Philosophie und Mystik* 2006).

Secondary sources. BEIP (İskenderoğlu); EI (Faure); HIP (Taftazani and Leaman); REP (Omran).

IBN SINA, *see* Avicenna.

IBN SUWĀR IBN AL-KHAMMĀR (al-Ḥasan) b. Baghdad, 942; d. *ca.* 1030. Translator, physician, and scholar. Disciple of Yaḥyā ibn ʿAdī. Translated, from the Syriac, various

works of Aristotle, especially the logic. Various philosophical treatises are extant (part. tr. [Fr] in Lewin, "Ideal antique" 1955).

Secondary sources. Kraemer, *Humanism in the Renaissance* (1992); Lewin, "La notion de *muḥdath*" (1954), "L'idéal antique" (1955); Walzer, *Greek into Arabic* (1962).

IBN TAYMIYYA (Taqī al-Dīn Aḥmad) b. Harran (southeast Turkey), 1263; d. Damascus, 1328. Leading jurist and theologian. Educated in Damascus, where as a boy he had taken refuge from the Mongol invasion. Became an influential teacher there and in Cairo, but his extensive polemics led to his being imprisoned on several occasions. A wide-ranging and prolific author, many of whose works are still extant, he criticized various contemporary movements for departing from pure Sunnī beliefs. Important works include a treatise on judicial policy, the *Kitāb al-siyāsa al-sharʿiyya* (*The Governance according to Religious Law*) [1311–15] (ed. Mubārak 1966; tr. Farrukh 1966); the *Kitāb al-imān* (*Book of Faith*) (ed. Albānī 1980; tr. al-Ani and Tel 1999); *Jahd al-qrīḥah fī tajrīd al-naṣīḥah* (*Against the Greek Logicians*) (ed. and tr. Hallaq 1993); *Darʾ taʿāruḍ al-ʿaql wa-al-naql* (*Rejecting the "Contradiction" between Intellect and Transmission*) (ed. al-Rahmān 1997); and *Al-Jawāb al-ṣaḥīḥ li-man baddala dīn al-masīḥ* (*The Right Answer to Those Who Changed the Message of Jesus Christ*) (ed. Ibn Nāṣir *et al.* 1993–9; part. tr. Michel 1984). Selected writings are translated in Ansari (2000).

Secondary sources. Khan, *Political Thought* (1973); Lambton, *State and Government* (1981); BEIP (Kiliç); EI (Laoust); REP (Pavlin).

IBN AL-ṬAYYIB (Abū al-Faraj ʿAbdallāh) d. 1043. Nestorian Christian philosopher and physician, active in Baghdad. Extant works include various theological treatises, such as a commentary on Genesis (ed. and [Fr] tr. Sanders 1967), and philosophical commentaries, including the *Isagoge* (ed. Gyekye 1975; tr. Gyekye 1979) and the *Categories* (ed. Ferrari 2006).

Secondary sources. Ferrari, "Duft des Apfels" (2004); EI (Vernet).

IBN TIBBON, *see* Samuel Ibn Tibbon.

IBN ṬUFAYL al-Qaysī, Abū Bakr Muḥammad (Abubacer) b. Guadix (northeast of Granada), ca. 1110; d. Marrakech, 1185. Prominent Andalusian philosopher. Studied medicine, became friend and physician to the Almohad rulers, to which position he was succeeded by Averroes. Aside from some poetry fragments, the only extant work is *Ḥayy ibn Yaqẓān* (ed. Gauthier 1936; tr. Goodman 1972), a philosophical fable that recapitulates all of science, philosophy, and theology through the story of a child's solitary intellectual development on a deserted island.

Secondary sources. Gauthier, *Sa vie, ses œuvres* (1909/1983); Conrad (ed.), *World of Ibn Tufayl* (1996); Hawi, *Islamic Naturalism and Mysticism* (1974); Hawi, "Appraisal" (1976); Hourani, "Principal Subject" (1956); Kukkonen, "No Man Is an Island" (2008); Montada, "Philosophy in Andalusia" (2005); BEIP (Leaman); EI (Carra de Vaux); HIP (Goodman); REP (Inati).

AL-ĪJĪ (ʿAḍud al-Dīn) b. Īj (southern Iran), prob. after 1281; d. Īj, 1355. Ashʿarite theologian. Served as chief judge in Shiraz *ca.* 1336. Political intrigue led to his being

put in prison, where he died. Best known for his theological *summa*, the *Kitāb al-mawāqif fī ʿilm al-kalām* (*Book of Stations Concerning the Science of Theology*) (ed. ʿUmayrah 1997; Bk. I tr. [German] van Ess, *Erkenntnislehre* 1966).

Secondary sources. Van Ess, "Biobibliographische Notizen" (1978); BEIP (Leaman); EI (van Ess).

IKHWĀN AL-ṢAFĀʿ (Brethren of Purity) *fl.* ninth to tenth century (?). Anonymous authors of an influential Arabic encyclopedia that ranges widely over science, philosophy, and theology. There is controversy over the members of this secret society, and over their doctrinal affiliations. Even the date of composition is unclear, and the work may have been revised over the course of a century or more. The *Rasāʾil Ikhwān al-Ṣafāʾ wa Khullān al-Wafāʾ* (*Epistles of the Pure Brethren and Sincere Friends*) (ed. Ghālib 1957, etc.) consists of fifty-two epistles divided into four parts (introduction; natural science [part. tr. (Fr) Gauthier–Dalché 1988]; psychology [tr. (German) Diwald 1975]; metaphysics–theology [part. tr. Van Reijn 1995]). It draws heavily on Greek and other non-Arabic material. The most famous section depicts a debate between animals and man (tr. Goodman 1978). A critical edition of the whole work, with translation, is in progress.

Secondary sources. De Callataÿ, *Ikhwān al-Ṣafāʾ* (2005); El-Bizri (ed.), *Epistles of the Brethren* (2008); Nasr, *Introduction* (1993); Netton, *Muslim Neoplatonists* (1982); BEIP (El-Bizri); EI (Marquet); HIP (Netton); SEP (Baffioni).

IMMANUEL BEN SOLOMON b. Rome, *ca.* 1261; d. before 1336. Poet, biblical commentator. Studied in Rome; forced to leave after the loss of his property, after which he lived in various Italian cities. Both his many biblical commentaries (largely unedited) and his poetical work contain considerable philosophical content. Notable among the former are his commentary on Genesis (ch. 1 ed. and [Ital] tr. Michelini Tocci 1963). His principal literary work is the *Maḥbarot* (*Compositions*) (ed. Jarden 1957; part. tr. Gollancz 1921).

Secondary source. REP (Rigo).

INNOCENT IV (Sinibaldo dei Fieschi, Fliscus) b. Genoa, before 1200; d. Naples, 1254. Influential canon lawyer and pope. Studied law in Parma and perhaps Bologna. Left academia for the papal curia in 1226. Elected cardinal in 1227 and pope in 1243, a tenure that was marked by his clash with the Holy Roman Emperor Frederick II. His most influential work is the long *Apparatus* or *Commentaria* on the Decretals of Gregory IX (ed. 1570/1968), on which he worked for much of his life. The *Novelle* collects his own Decretals, on which he also commented (unedited).

Secondary sources. Melloni, *Innocenzo IV* (1990); Watt, *Theory of Papal Monarchy* (1966); Pennington.

IRNERIUS OF BOLOGNA (Guarneris) b. Bologna, *ca.* 1055; d. Bologna, *ca.* 1130. Legal scholar who revived the study of Roman law. Taught in Rome, then returned to Bologna to found a new school of jurisprudence in 1088. The first of the glossators, whose marginal commentaries on the code of Justinian (the *Corpus iuris civilis*) stand at the beginning of systematic European law. Chief work is the *Summa codices* (ed. Fitting

1894/1971). Also associated with the *Quaestiones de iuris subtilitatibus* (ed. Zanetti 1958), although the true author may be Placentinus.

    Secondary sources. Besta, *L'opera* (1896); Kantorowicz and Buckland, *Studies* (1938/1969); Radding, *Origins of Medieval Jurisprudence* (1988); von Savigny, *Geschichte* (1834–51/1961); Weigand, *Die Naturrechtslehre* (1967); DBI (Cortese).

ʿīsā ibn zurʿa b. Baghdad, 943; d. 1008. Translator, philosopher, Christian apologist. A Jacobite Christian; studied with Yaḥyā ibn ʿAdī. Translated various works of Aristotle, probably from the Syriac. His surviving treatises include discussions on the intellect and on the existence of God (both ed. Sbath, in *Vingt traités* 1929).

    Secondary sources. Pines, "La loi naturelle" (1961); EI.

isaac albalag *fl.* Catalonia, 1280s–90s. Philosopher, heavily influenced by Averroes's brand of Aristotelianism. Origins in the Pyrenees. Insisted on the philosophical truth of Aristotelianism, even when this appeared to conflict with biblical accounts. Translated into Hebrew, with commentary, parts of al-Ghazālī's *Intentions of the Philosophers* [1292] (part. tr. Manekin, *Writings* 2007). Also extant is the *Sefer Tikkun ha-Deʿot* (*Book of Setting Doctrines Right*) (ed. Vajda 1973).

    Secondary sources. Vajda, *Isaac Albalag* (1960); HIP (Leaman); REP (Leaman); Sirat.

isaac ben joseph pulgar (Pollegar) *fl.* Spain, first half of fourteenth century. Philosopher and controversialist. Little is known of his life, other than that he was close to Isaac Albalag, whose translation of al-Ghazālī he finished, and also to Abner of Burgos, of whom he became a bitter adversary after Abner's conversion to Christianity. Principal work is his *Ezer ha-Dat* (*Support of the Faith*) (ed. Levinger 1984).

    Secondary source. Sirat.

isaac israeli b. *ca.* 855; d. *ca.* 955. Early Jewish Neoplatonist and physician. Spent the first half of his life in Egypt; moved to Tunisia *ca.* 905. Served as doctor to a series of Fatimid rulers. Little more is known of his life, and his dates are likewise uncertain. His numerous writings include various philosophical and medical works, all written in Arabic, but surviving mainly in Hebrew and Latin. His best-known philosophical treatise is the *Book of Definitions*, a collection of fifty-seven definitions largely taken from al-Kindī, which has survived in Latin (ed. Muckle 1937–8) and Hebrew (*Sefer ha-Gvulim*) (ed. Hirschfeld 1896), and in fragments of the original (ed. Hirschfeld 1902). His most extended philosophical work is his *Book on the Elements*, also surviving in Latin (ed. 1515) and in Hebrew (*Sefer ha-Yesodot*) (ed. Fried 1900). A distinct *Chapter on the Elements* has also survived in Hebrew (*Shaʿar ha-Yesodot*, ed. Altmann 1956), and fragments are extant from the original *Kitāb al-jawāhir* (*Book of Substances*) (ed. Stern 1956). All of these except the *Book on the Elements* have been translated by Altmann and Stern (1958/1979). His medical works were most influential among medieval readers, both Islamic and Christian. Among these are the *Book of Fevers* and the *Book of Urine* (both ed. [Latin] 1515).

Secondary sources. Pessin, "Jewish Neoplatonism" (2003); Veit, *Das Buch der Fieber* (2003); BCPMA (Pessin); EI (Altmann); HJP (Rudavsky); REP (Lasker); SEP (Levin and Walker).

ISAAC OF STELLA b. England, early twelfth century; d. *ca.* 1177. Cistercian theologian and spiritual leader. Studied in France, joined the Cistercian order and in 1147 became abbot at the monastery of l'Étoile (*Stella*) near Poitiers. Moved to the island of Ré, near La Rochelle, *ca.* 1167, where he founded a new Cistercian monastery. His *Epistola de anima* (ed. PL 194; tr. McGinn, *Three Treatises* 1977) depicts the soul standing between God and the world, an image of both. This brief work would indirectly achieve wide circulation through its absorption into the pseudo-Augustinian treatise *De spiritu et anima* (also tr. McGinn 1977). Also surviving is a large collection of sermons, often with substantial philosophical and theological content (ed. and [Fr] tr. Hoste *et al.* 1967–87, in 3 vols.; part. tr. McCaffrey 1979; Deme 2007).

Secondary sources. McGinn, *Golden Chain* (1969); Raciti, "Isaac de l'Étoile" (1971); REP (Wetherbee).

ISIDORE OF SEVILLE b. Carthagena or Seville, *ca.* 560; d. 636. Influential encyclopedist. Born into a prominent religious family, becoming a monk *ca.* 589. Bishop of Seville from *ca.* 600. Primarily a compiler rather than an original thinker, his aim was to preserve the disappearing knowledge of antiquity. Best known for his *Etymologies* [*ca.* 620–35] (ed. Lindsay 1911; tr. Barney 2006), a twenty-volume attempt at a compendium of all knowledge, which would be enormously influential on later medieval thought. Composed another encyclopedia, the *De natura rerum* (ed. and tr. [Fr] Fontaine 1960/2002), as well as two further works on the meanings of terms, the *Differentiae* and the *Synonyms*. His explicitly theological works include *De fide catholica*, *De ecclesiasticis officiis*, *De ordine creaturarum*, and *Sententiarum libri tres* (ed. Cazier 1998). Letters have also survived (tr. Ford 1970). The complete works are available in PL 81–4, and are being reedited in *Corpus Christianorum* (1989–).

Secondary sources. Brehaut, *Encyclopedist* (1964); Fontaine, *Isidore de Séville* (1984), *Tradition et actualité* (1988) [papers]; Henderson, *Medieval World* (2007); Ribémont, *Les origines* (2001); BCPMA (d'Onofrio); DMA (Reydellet).

IVO OF CHARTRES (Carnotensis) b. prob. near Beauvais, *ca.* 1040; d. 1115. Important scholar of canon law. Studied with Lanfranc and Anselm at Bec. Bishop of Chartres from 1090 until his death. Author of three efforts to systematize canon law: the *Collectio tripartita* (unedited), the *Decretum* (ed. PL 161), and the *Panormia* (ed. PL 161). The "Prologue" to these is particularly interesting (ed. Brasington 2004). A large corpus of letters has also survived, almost all concerned with ecclesiastical business (part. ed. Leclercq 1949; letter 222 tr. Fairweather, in *Scholastic Miscellany* 1956).

Secondary sources. Kéry, *Canonical Collections* (1999); Sprandel, *Ivo von Chartres* (1962).

JĀBIR IBN ḤAYYĀN (Geber) b. 721; d. 815. Foundational authority on alchemy. Prolific, wide-ranging scholar, whose works are said to have numbered over 1,000, although Jābir's very existence has been debated by some modern scholars, and his authorship of many

traditionally attributed works is seriously in doubt. Among these, the influential *Summa perfectionis* is now known not to be an Arabic treatise at all, and is instead ascribed to Paul of Taranto. It, along with other Latin works associated with Jābir, were translated into English in the seventeenth century (tr. Russel 1678/1928). Selections from the *Kitāb al-Ahjar* (*Book of Stones*) are available in a modern edition (ed. and tr. Haq 1990).

Secondary sources. Hill, "Literature of Arabic Alchemy" (1990); Kraus, *Jābir ibn Ḥayyān* (1942–3); EI (Kraus).

JACOB, JACQUES, *see also* James.

JACOB ANATOLI b. southern France, *ca.* 1194; d. 1258. Prominent Arabic-to-Hebrew translator. Son-in-law of Samuel ibn Tibbon. Physician at the court of Frederick II in Naples *ca.* 1231, where he came to know and perhaps work alongside the great Latin translator Michael Scot. Translated Averroes's middle commentary on the Organon [*ca.* 1232], as well as various astronomical treatises (see Appendix B6). His only original work is the *Malmad ha-Talmidim* (*Incentive to the Pupils*) [*ca.* 1249] (ed. 1866/1968), a collection of moralizing sermons.

Secondary source. Sirat.

JAHM IBN ṢAFWĀN (Abū Muḥriz) b. Khurasan; d. 746. Early Islamic theologian. Spent most of his life in Tirmidh (Uzbekistan). Executed after taking part in a political revolt. His theological views were influential enough to have inspired a later sect of Jahmiyya, but none of his works are extant.

Secondary sources. Van Ess, *Theologie und Gesellschaft* (1991–7); EI (Watt); BEIP (el-Kaisy).

JAMES OF ASCOLI (Jacobus de Aesculo) *fl.* 1310s. Franciscan theologian and follower of Scotus. Master of theology at Paris by 1309; regent master in 1310–11. Active in inquisitions against Marguerite of Porete and Peter of John Olivi. Extant works include various quodlibetal and disputed questions (part. ed. Yokoyama 1967) and an incomplete *Sentences* commentary (unedited).

Secondary sources. Hödl, "Die Seinsdifferenz" (1988); BBK (Madey); FA; Glorieux.

JAMES OF DOUAI (Jacobus de Duaco) *fl.* 1275. Master of arts in Paris. Extant commentaries (mainly unedited) on both *Analytics*, the *De anima* (ed. Raedemaeker 1962), the fourth book of the *Meteorology*, the *Parva Naturalia*, and perhaps the *Ethics*. Also extant is a treatise on the soul's knowledge of itself (ed. Bazán 1969).

Secondary sources. Grabmann, "Jakob von Douai" (1947); Guldentops, "Theory of Knowledge" (2006), "Philosophy of Mind" (2007); CHLMP; Lohr; Weijers.

JAMES OF LAUSANNE d. 1322. Dominican theologian. Student of Peter of Palude. Read the *Sentences* at Paris in 1314–15, becoming master of theology in 1317. Both a literal and a question commentary survive (unedited).

Secondary sources. Schabel *et al.*, "Peter of Palude" (2001) [edits three questions on divine foreknowledge]; Kaeppeli.

JAMES OF METZ (Jacobus Mettensis) *fl. ca.* 1300. Dominican theologian. Lectured on the *Sentences*, perhaps at Paris, *ca.* 1300–1, and again *ca.* 1302–3 (unedited). This is his only known work. James was by no means a Thomist, although the degree of his anti-Thomism remains subject to dispute. Influential on subsequent heterodox Dominicans, such as Durand of St. Pourçain. James's views would later be the subject of a short polemical treatise by Hervaeus Natalis (unedited).

  Secondary sources. Decker, *Die Gotteslehre* (1967); Koch, "Jakob von Metz" (1929); Köhler, *Der Begriff der Einheit* (1971), "Wissenschaft und Evidenz" (1974); Solère, "Thomistes et antithomistes" (1997); Ullrich, *Fragen der Schöpfungslehre* (1966); BCPMA (Friedman); DMA (Solère); Kaeppeli.

JAMES OF PIACENZA (Jacobus de Placentia, Jacques de Plaisance) *fl.* 1340s. Arts master at Bologna. Regarded as a proponent of radical Averroism. Extant works include disputed questions, various commentaries on the logical curriculum (all unedited), and questions on *De anima* III (ed. Kuksewicz 1967).

  Secondary sources. Kuksewicz, *De Siger de Brabant à Jacques de Plaisance* (1968); Lohr; Weijers.

JAMES OF THÉRINES b. Thérines (Picardy); d. 1321. Cistercian theologian. Studied in Paris as early as 1290, becoming regent master of theology in 1306. Left Paris in 1309 to serve as abbot of the monastery at Chaalis, where he had originally joined the order. Abbot of Pontigny from 1317/18 until his death. His extant works consist of two *Quodlibeta* from 1306–7 (ed. Glorieux 1958).

  Secondary sources. Jordan, *Unceasing Strife* (2005); Sullivan, "*Quodlibeta*" (2007).

JAMES OF VENICE b. Venice; d. after 1147. The most important twelfth-century Greek-to-Latin translator. Studied in Constantinople. Translated large parts of Aristotle's corpus, including the *Posterior Analytics*, *Physics*, *De anima*, some of the *Parva Naturalia*, and *Metaphysics* I–IV.4 (ed. *Aristoteles Latinus* 1953–). These were the standard Latin translations until William of Moerbeke's [1260s], and in some cases beyond (see Appendix B1).

  Secondary sources. Brams, *Riscoperta di Aristotele* (2003); Dod, "Aristotles Latinus" (1982); Minio-Paluello, *Opuscula* (1972); DMA (Bonmariage); Dronke.

JAMES OF VITERBO (Jacobus Capocci) b. Viterbo, *ca.* 1255; d. 1307/8. Parisian master of theology. Joined the order of Augustinian Hermits *ca.* 1270. Studied philosophy and theology at Paris *ca.* 1275–82. After another period in Italy, he returned to Paris as bachelor of theology in 1288, studying under Giles of Rome, whom he succeeded as master of theology from 1293 to 1300. Lecturer at the Augustinian *studium generale* in Naples until 1302; archbishop of Naples from 1303 until his death. Principal works are his four *Quodlibeta* [1293–7] (ed. Ypma 1968–75; II.20 and IV.30 tr. CTMPT II) and his thirty-two *Quaestiones de divinis praedicamentis* [before 1296] (part. ed. Ypma 1983–6, with further questions appearing in *Augustiniana* 1988–). His *De regimine christiano* [1301–2] (ed. and tr. Dyson 1995) argues in favor of papal authority. Various other works

survive, mainly unedited, including a series of disputed questions *De verbo* (quest. 1 ed. Scanzillo 1972).

Secondary sources. Ypma, "Recherches sur la carrière" (1974), "Recherches sur la productivité" (1975); Gossiaux, "Essence and Existence" (1999), "Reality of the Possibles" (2007); Gutierrez, "De vita et scriptis" (1937–8); Mahoney, "Themistius and the Agent Intellect" (1973); Phelps, "Theory of Seminal Reasons" (1980); Ruello, "Fondements de la liberté humaine" (1974–5); Wippel, "Relationship between Essence and Existence" (1982); BCPMA (Gossiaux); CHLMP; DMA (Bonino); REP (Mahoney); Glorieux.

JAN VAN RUUSBROEC (van Ruysbroeck) b. *ca.* 1293; d. 1381. Dutch mystic. Educated at the cathedral school in Brussels; ordained priest in 1317. Founded a monastic community outside Brussels, of which he became prior from 1350 until his death. His eleven extant works are in Middle Dutch. Most important is the *Die gheestelike brulocht* (*The Spiritual Espousals*) (tr. Wiseman 1985), whose three books address the active, the inner, and the contemplative life. His complete works are available in a modern edition (ed. de Baere 1988–).

Secondary source. DMA (Hoenen).

JEAN, *see* John.

JEROME OF PRAGUE b. Prague, 1370/1; d. Constance, 1416. Disciple of John Hus, burned at the stake for supporting the doctrines of Hus and John Wyclif. Studied at the University of Prague; journeyed to Oxford in 1399, then returned to Prague with copies of Wyclif's theological writings. An edict at Prague against Wyclif's doctrines led Jerome to relocate as master of arts at Paris, from where he was forced to flee in 1406, moving first to Heidelberg and then to Cologne, and finally back to Prague. After more years of controversy, including charges of heresy – motivated largely by his outspoken demands for ecclesiastical reform – Jerome was arrested and brought to Constance. After initially making the recantation that would have saved his life, he retracted it and was burned at the stake. The principal philosophical tenet at issue in these controversies is thought to be a strong form of realism regarding universals, but Jerome wrote little, and all that has survived are a few speeches (ed. Höfler, *Geschichtsschreiber* 1856–66, vol. II) and various brief philosophical treatises (mostly unedited).

Secondary sources. Bernard, "Jerome of Prague" (1958); Betts, "Jerome of Prague" (1969); Kaluza, "Jérôme de Prague" (1994); Pilný, *Jérôme de Prague* (1974); Vilém, "Der Streit" (1995); BCPMA (Sanford); Weijers.

JOACHIM DE FIORE b. Calabria, *ca.* 1135; d. 1202. Monastic reformer and reputed prophet of the coming Antichrist. Son of a notary, he gave up his father's profession after a religious experience while traveling in the Middle East. Eventually returned to Calabria and joined a Cistercian monastery in 1159, but left the Cistercians in 1189 to found a new monastic order in Fiore. Most famous for his Apocalypse commentary (ed. 1527/1964); other significant works are the *Liber de concordia novi ac veteris testamenti* (ed. Daniel 1983), the *Tractatus super quatuor evangelia* (ed. Buonaiuti 1930), and the *Psalterium*

decem chordarum (ed. 1527/1965). His most philosophical work is the brief *De prescientia Dei et predestinatione electorum* (ed. de Leo 1988).

Secondary sources. McGinn, *Calabrian Abbot* (1985); Reeves, *Influence of Prophecy* (1969); West and Zimdars-Swartz, *Joachim of Fiore* (1983); DMA (De Fraja); DS (Baraut); REP (Eisen Murphy).

JOHANNES, *see also* John.

JOHANNES TEUTONICUS b. *ca.* 1170; d. 1245. Influential canon lawyer. Studied and taught at Bologna before retiring to Halberstadt *ca.* 1219. His efforts at synthesizing earlier material were so successful that his gloss on Gratian's *Decretum* (as revised by Bartholomew of Brescia) became known as the *Glossa ordinaria* [*ca.* 1215] (ed. 1601, etc.; part. tr. Thompson and Gordley 1993). Other principal works are the *Compilatio quarta*, together with an apparatus of glosses (ed. Augustín 1576), and an *Apparatus glossarum* on the *Compilatio tertia* (Bks. I–II ed. Pennington 1981).

Secondary sources. Weigand, *Die Naturrechtslehre* (1967); Pennington.

JOHANNITIUS, *see* Ḥunayn ibn Isḥāq.

JOHN AURIFABER *ca.* 1295–1333. Arts master and critic of modist grammar. Studied at Paris. Arts master at Erfurt. Known for his *Determinatio de modis significandi* [1332] (ed. Pinborg, in *Entwicklung* 1967), which formulates an influential attack on the doctrine of modism. Also extant are a *Tractatus de demonstratione*, a sophism on dimensions, and a question on mixtures (all unedited). A distinct John Aurifaber served as master of arts at Paris in 1397; his only extant work is a few questions on the *Physics* (unedited).

Secondary sources. Biard, *Logique et théorie* (1989); Kuksewicz, "Some Remarks" (1997); Lorenz, *Studium generale erfordense* (1989); Pinborg, "A Note" (1975), "Speculative Grammar" (1982); CHLMP; Lohr; Weijers.

JOHN BACONTHORPE (Baco, Bacconis) b. Norfolk, *ca.* 1290; d. 1345/52. Carmelite theologian. Entered the Carmelite convent at Blakeney at a young age. Studied at Oxford. Read the *Sentences* at Paris, most likely in 1320–1, becoming regent master there by 1323. Provincial prior in England in 1327–33. Probably taught at Cambridge, and later Oxford. Although commonly categorized as an Averroist, it remains unclear to what extent this is accurate. His *Sentences* commentary survives in several redactions, the earlier version surviving in manuscript form (part. ed. Borchert 1974) and a later version [after 1325] surviving only in a printed edition (ed. 1618/1969, etc.). Also surviving are three *Quodlibeta* [the first two probably in 1323–5, the third, also in Paris, in 1330] (ed. 1618/1969, etc.), questions on canon law [*ca.* 1340] (ed. Borchert 1974), as well as commentaries on the Gospel of Matthew [1336/7] and on Augustine and Anselm (all unedited).

Secondary sources. Di S. Brocardo, "Profilo storico" (1948); Etzwiler, "Doctrine of the Unique Intellect" (1971), "Prince of the Averroists" (1976); Lynch, "De distinctione intentionali" (1931); Schabel, "Carmelite Quodlibeta" (2007); Smalley, "Postill on St

Matthew" (1958); Turley, "Papal Infallibility" (1982); Xiberta, *De scriptoribus* (1931); BCPMA (Cross); DMA (Schmutz); ODNB (Marenbon).

JOHN OF BASSOLIS d. 1333. Franciscan theologian, a disciple of Scotus. Lectured on the *Sentences* in Rheims in 1313 [rev. *ca.* 1317] (ed. 1516–17).

　　Secondary sources. Pasiecznik, "John de Bassolis" (1953–4); Volz, *Die Lehre des Johannes de Bassolis* (1969); FA.

JOHN BLUND b. *ca.* 1175; d. 1248. Early lecturer on the new Aristotle. Studied arts at Paris; apparently lectured at both Oxford and Paris around the turn of the century. Returned to Paris to study theology; eventually incepted as master *ca.* 1220. Unrest in Paris brought him back to England in 1229. Elected archbishop of Canterbury in 1232, he was denied consecration by Gregory IX, and instead appointed chancellor of York Minster from 1234–48. The only extant work is a treatise on the soul [*ca.* 1200/10] (ed. Callus and Hunt 1970), probably composed at Oxford, and remarkable as a very early instance of Aristotle's and Avicenna's appearance in the curriculum of the new universities.

　　Secondary sources. Callus, "Introduction of Aristotelian Learning to Oxford" (1943), "Treatise of John Blund" (1955); Dronke; ODNB (Lawrence); Weijers.

JOHN BODE (Bodi) *fl.* 1357. Benedictine monk and doctor of theology at Oxford. Only known work is a collection of twenty-two sophisms known by its incipit, *A est unum calidum* (unedited), written in the tradition of the Oxford Calculators. The John Bode listed as a fellow of Merton College in 1338 is probably a different man.

　　Secondary sources. CHLMP; Emden; ODNB (North).

JOHN BURIDAN b. Picardy, 1295/1300; d. 1358/61. Parisian arts master; the most influential philosopher of the later fourteenth century. Educated in Paris; earned master of arts degree by the mid-1320s. Taught in the arts faculty at Paris for his entire career, serving twice as rector [1328, 1340]. Never became theology master, but remained a secular cleric (unaffiliated with any religious order). Although later classified as a nominalist, his views are highly original and not easily labeled, in some areas showing the influence of Ockham but in other places diverging quite dramatically. Although heavily influential on later scholastic thought, scholars no longer speak of a true "Buridan School," but simply regard his influence as pervasive both in Paris and elsewhere. His main philosophical achievement is found in his question-commentaries, which are extant for most of Aristotle's major works, often in multiple redactions. Of particular philosophical interest are the commentaries on the *Physics* (ed. 1509/1964), *Metaphysics* (ed. 1518/1964), and *De anima* (ed. and tr. Zupko 1989 [Bk. III only, from the third redaction]; ed. Patar 1991 [an earlier redaction]; ed. Lokert 1516, etc. [seemingly a mix of various redactions]), critical editions of which are all underway. Also edited are questions on Porphyry (ed. Tatarsynski 1986); the *Categories* (ed. Schneider 1983); the *De interpretatione* (ed. Van der Lecq 1983); *De generatione et corruptione* (ed. Streijger forthcoming); and *De caelo* (ed. Moody 1942). In logic, Buridan authored the massive *Summulae de dialectica* (various part. eds.; the whole tr. Klima 2001), one of the key texts of the *via moderna*, which consists in nine large parts, the ninth being the *Sophismata* (ed. Pironet 2004; tr. Klima

2001 and Scott 1966), which also circulated as a separate treatise. Another important logical work is the *Tractatus de consequentiis* (ed. Hubien 1976; tr. King 1985). The main ethical work is the commentary on the *Ethics* (ed. 1513/1968; part. tr. CTMPT II); the *Politics* commentary published under Buridan's name is not authentic. Many other commentaries and briefer treatises are extant.

Secondary sources. Michael, *Johannes Buridan* (1985) [biobibliography]; de Rijk, "On Universals" (1992); Hughes, *Self-Reference* (1982); Klima, *John Buridan* (2009); Krieger, *Begriff der praktischen Vernunft* (1986), *Subjekt und Metaphysik* (2003); Normore, "Buridan's Ontology" (1985); Schönberger, *Relation als Vergleich* (1994); Thijssen, "Buridan School" (2004); Thijssen and Zupko (eds.), *Metaphysics and Natural Philosophy* (2001); Walsh, "Connection of the Virtues" (1986); Zupko, *Portrait* (2003); BCPMA (Klima); DMA (de Libera); SEP (Zupko); REP (Zupko); Weijers.

JOHN THE CANON (Mambres, Marbres) b. Catalonia; *fl.* 1320s/30s. Master of arts at Toulouse. Canon of Tortosa, and possibly also Barcelona. Influenced by Francis of Marchia, although not a Franciscan. Only known work is a *Physics* commentary (ed. 1475, etc.). His identity with John Mambres is supposed, but not certain.

Secondary sources. Bakker and Dekker, "Antoine Andrée ou Jean le Chanoine?" (2000); Lohr; Weijers.

JOHN CAPREOLUS (Jean Cabrol) b. near Rodez (southern France), 1380; d. Rodez, 1444. Key figure in the Thomist movement. Known in the Renaissance as the *Princeps Thomistarum* – not quite the "Prince of Thomists" (as he is often called), but more literally the Founding Father of the Thomists. Joined the Dominican order in southern France. Assigned to lecture on the *Sentences* at Paris in 1407; licensed as master of theology in 1411. Subsequently taught at Dominican convents in Toulouse and Rodez. Worked for the remainder of his life on his commentary on the *Sentences*, also known as the *Defensiones theologiae divi Thomae Aquinatis* (ed. Paban and Pègues 1900–8/1967). This work takes the form of a massive defense of Aquinas's doctrines against a host of critics, particularly Henry of Ghent, Scotus, Peter Auriol, Ockham, Adam Wodeham, and Gregory of Rimini. The material on virtues from Bk. III is available in translation (tr. White and Cessario 2001).

Secondary sources. Bedouelle *et al.* (eds.), *Jean Capreolus* (1997); Forster, *Verteidigung der Lehre* (1955); Grabmann, "Johannes Capreolus" (1956); Hegyi, *Die Bedeutung des Seins* (1959); Müller, "Ethics" (2004), "Sprache" (2004); BCPMA (White); Kaeppeli; REP (Tavuzzi).

JOHN CHILMARK d. *ca.* 1396. Mathematician and philosopher. Master of arts and fellow of Merton College in 1384. Subsequently lectured at Exeter College. At least eight extant works of logic and natural philosophy, in the Mertonian tradition, are ascribed to Chilmark (all unedited).

Secondary sources. Keele, "Logical and Scientific Treatises" (2007).

JOHN OF DACIA (Johannes Dacus) *fl.* 1280s. Master of arts at Paris. Most important extant work is a modist grammar, the *Summa gramatica* [*ca.* 1280], a very long but

incomplete record of lectures on Priscian. Also extant is a *Divisio scientiae* [*ca.* 1280] and *De gradibus formarum* (all ed. Otto 1955).

Secondary sources. Rosier-Catach, *Grammaire spéculative* (1983); Sirridge, "Science of Language" (1995); Weijers.

JOHN DORP b. near Leyden; *fl.* 1393–1418. Logician, traditionally numbered among the nominalists. Received his bachelor of arts at Paris in 1393; named master in that same year. Became master of medicine in 1404 and left Paris in 1405 to serve as a physician in Holland. Listed as master of arts at Cologne in 1413. Authored a commentary on Buridan's *Summulae* [*ca.* 1393] (ed. 1499/1965, etc.), of which tract 4 (on the properties of terms) is in fact a commentary on Marsilius of Inghen.

Secondary sources. Ashworth, "Infinite Sets" (1977), "Medieval Theories of Singular Terms" (2006); Bos, "Die Rezeption" (2000); Read, "Material Supposition" (1999); Weijers.

JOHN DUMBLETON b. Gloucestershire, *ca.* 1310; d. *ca.* 1349. Natural philosopher; one of the Oxford Calculators. Fellow of Merton College by 1338. Studied theology in Paris, perhaps in 1345–6. Author of a large *Summa logicae et philosophiae naturalis* [1340s] (unedited), mostly focused on natural philosophy and extant in over twenty manuscripts, and a brief *Compendium sex conclusionum* [1348] (ed. Weisheipl, in "Early Fourteenth-Century Physics" 1956; tr. Moody, in *Rise of Mechanism* 1950), a discussion of circular motion.

Secondary sources. Molland, "Geometrical Optics" (1995); Sylla, *Oxford Calculators* (1991) [outline of *Summa* pts. II–VI], "Latitude of Forms" (1973), "John Dumbleton's *Summa*" (1991); Weisheipl, "Early Fourteenth-Century Physics" (1956), "Place of Dumbleton" (1959), "Ockham and some Mertonians" (1968), "Repertorium Mertonense" (1969); BCPMA (Sylla); ODNB (Molland); Weijers.

JOHN DUNS SCOTUS b. Duns (Scotland), 1265/6; d. Cologne, 1308. Vastly influential Franciscan theologian and philosopher. Studied with the Franciscans at Oxford from an early age; began his theological studies there *ca.* 1288. Lectured on the *Sentences ca.* 1298. Sent to Paris in 1302, where he lectured on the *Sentences* again (interrupted by a year in England in 1303–4). Regent master of theology at Paris in 1305–7, after which he was assigned to the Franciscan *studium* in Cologne. Principal work is the *Sentences* commentary, extant in a bewildering number of versions. The earliest version is the *Lectura*, dating from Oxford, for which we have Bks. I–III. These were revised [1300–4], and this *Ordinatio* includes Bk. IV (but has gaps elsewhere). The Paris lectures have survived in the form of various more or less polished lecture notes, the *Reportatio Parisiensis*. There are multiple versions for each of the four books, and also the so-called *Additiones magnae* compiled by William of Alnwick [1312/25]. At present, the Vatican critical edition (ed. Balić *et al.* 1950–) has completed the *Lectura* and is partway through the *Ordinatio*. For the Paris lectures, one must still consult the old *Opera omnia* (ed. Wadding 1639; ed. Vivès 1891–5), although a version of Bk. I is newly available (ed. and tr. Wolter and Bychkov 2004).

Other important works are the *Quodlibeta* [1306/7] (ed. Alluntis 1968; tr. Alluntis and Wolter 1975); the *De primo principio* [*ca.* 1308] (ed. and tr. Wolter 1966), on God's existence and nature; the *Collationes* [1302–8], a set of disputations from Oxford and Paris; and the doubtfully authentic *Theoremata*. In addition, there are many question-commentaries on Aristotle, mostly from early in Scotus's career, with the exception of the *Metaphysics* (tr. Etzkorn and Wolter 1997–8), which mixes early and late material. These works have been edited as the *Opera philosophica* (ed. Noone *et al.* 1997–2006). Most of Scotus's work has never been translated, although useful collections are available on will and morality (ed. and tr. Wolter 1986); universals (tr. Spade, in *Five Texts* 1994); contingency and freedom (ed. and tr. Vos 1994), individuation (ed. and tr. Wolter 2005), as well as a general *Philosophical Writings* (ed. and tr. Wolter 1962/1987).

Secondary sources. Cross, *Physics* (1998), *Duns Scotus* (1999), *Duns Scotus on God* (2005); Frank and Wolter, *Duns Scotus, Metaphysician* (1995); Honnefelder, *Ens inquantum ens* (1979); Kent, *Virtues of the Will* (1995); Pini, *Categories* (2002); Ryan and Bonansea (eds.), *John Duns Scotus* (1965); Vos, *Philosophy* (2006); Williams (ed.), *Cambridge Companion* (2003); Wolter, *Philosophical Theology* (1990) [collected papers]; Wolter (ed.), *Duns Scotus* (1993); Wood *et al.* (eds.), *John Duns Scotus* (1996); BCPMA (Dumont); REP (Dumont); SEP (Williams); Weijers. Tobias Hoffmann maintains an internet bibliography.

JOHN OF ERFURT (Erfurdensis, Alemannus, of Saxony) b. Saxony, *ca.* 1255; d. *ca.* 1320/40. Franciscan canon lawyer and perhaps theologian. Lectured at Erfurt, beginning *ca.* 1275, and Magdeburg *ca.* 1285–95. Studied law in Bologna in 1295. Particularly influential for his *Summa confessorum* [1295; rev. 1302] (ed. Brieskorn 1981). The popular *Sentences* commentary [1294/1304] (unedited) may have been authored by a younger man by the same name.

Secondary sources. Heynck, "Studien" (1958–60); FA; Pennington.

JOHN OF FREIBURG b. *ca.* 1250; d. *ca.* 1304. Dominican moral theologian. Author of a *Summa confessorum* [1298] (ed. 1476, etc.), which draws on the moral theory of Aquinas to update Raymond of Pennafort's *Summa de paenitentia*.

Secondary sources. Boyle, "*Summa confessorum*" (1974); Kaeppeli.

JOHN OF GARLAND b. Berkshire, *ca.* 1195; d. *ca.* 1272. Grammarian and poet. Studied at Oxford in 1210–13; subsequently taught at Paris. Master of grammar at Toulouse in 1229–32, afterwards returning to Paris, where he seems to have remained. Principal work is the *Compendium gramatice* [*ca.* 1232] (ed. Haye 1995), with an accompanying guide, the *Clavis compendii* [*ca.* 1234] (ed. Marguin-Hamon 2008). Also extant is the *Ars lectoria Ecclesie* or *Accentarius* [1234] (ed. Marguin-Hamon 2003) and commentaries on the verse grammars of Evrard of Béthune and Alexander of Villa Dei (unedited). His youthful *Dictionarius* [*ca.* 1218] (ed. and tr. Rubin 1981) marks the first known use of that term. Many poems are also extant. The musical theorist John of Garland is a different man.

Secondary sources. Grondeux and Marguin. "L'œuvre grammaticale" (1999); Hunt, *Teaching and Learning* (1991); ODNB (Traugott); Weijers.

JOHN GERSON (Jean Le Charlier) b. Gerson-les-Barbey (Ardennes), 1363; d. Lyon, 1429. Ecclesiastical and spiritual leader. Early education in Rheims. Studied philosophy and theology at the College of Navarre in Paris from 1377. Student of Peter of Ailly. Master of arts in 1382. Sent to Avignon in 1387 as part of a delegation intent on defending the rights of the university against the papacy. Master of theology in 1392. Appointed university chancellor in 1395, a position he retained until his death, even after he left Paris for the last time in 1415. Heavily involved in efforts at curricular reform at Paris, and at ending the papal schism. An influential voice at the Council of Constance [1414–17]. Spent the last decade of his life in Lyon, where he was active as an author and advisor on spiritual matters. An extremely prolific author, his complete works are edited in ten volumes (ed. Glorieux 1960–73). In philosophy, he was sympathetic toward nominalism, in the *De modis significandi* [1426] and *De concordia metaphysicae cum logica* [1426]. He is much better known, however, as a proponent of educational reform, in works such as *Contra curiositatem studentium* [1402] (part. tr. Ozment 1969), and for his spiritual and mystical writings, including *De mystica theologia* [1402–3] (part. tr. McGuire 1998), *De consolatione theologiae* [1418] (ed. and tr. Miller 1998), and *De elucidatione scholastica mysticae theologiae* [1424]. Many letters have also survived.

Secondary sources. McGuire, *Jean Gerson* (2005); McGuire (ed.), *Companion* (2006); Brown, *Pastor and Laity* (1987); Burger, *Aedificatio* (1986); Burrows, *Consolation* (1991); Connolly, *Jean Gerson* (1928); Mourin, *Jean Gerson* (1952); Pascoe, *Jean Gerson* (1973); Vial, *Jean Gerson* (2006); BCPMA (South); DMA (Solère); REP (Burrows).

JOHN HILTALINGEN OF BASEL b. Basel, *ca.* 1315; d. Freiburg, 1392. Augustinian friar and theologian. Studied in Avignon; taught at the Augustinian *studium generale* in Strasbourg. Lectured on the *Sentences* in Paris in 1365–6, receiving his doctorate in 1371. Subsequently active in ecclesiastical affairs, becoming prior general of his order in 1379 and bishop of Lombez in 1389. An edition of his substantial *Sentences* commentary is in progress.

Secondary sources. Marcolino, "Leben und Schrifftum" (2003); Trapp, "Augustinian Quotations" (1954); Zumkeller, "Der Augustinertheologe" (1980); BBK (Zumkeller).

JOHN OF HOLLAND b. near Amsterdam; d. after 1371. Arts master. Studied at Oxford. Arts master at Prague beginning in 1366, becoming dean of the faculty in 1369. Author of at least six logical treatises: *Suppositiones, Fallacie, Obligationes, Insolubilia* (all ed. Bos 1985), plus *Sophismata* and *Consequentie* (both unedited). Also extant are several treatises of natural philosophy: a *De motu* (part. ed. Clagett, in *Science of Mechanics* 1959) and a *De primo et ultimo instanti* [1369] (unedited).

Secondary sources. D'Ors, "Sobre les 'Obligationes'" (1988); Weijers.

JOHN HUNTMAN (Hunter, Johannes Venator) *fl.* second half of fourteenth century. English logician. Fellow of Oriel College [1373–87]; accused of excessive sympathy for the views of John Wyclif. Author of a *Logica* (ed. de Rijk 1999) and an *Insolubilia* (unedited).

Secondary sources. De Rijk, "Semantics" (1982); Spade, *Mediaeval Liar* (1975); Emden.

JOHN HUS (Jan Huss) b. Husinec (Czech Republic), *ca.* 1369; d. Constance, 1415. Ecclesiastical critic; proponent of John Wyclif. Studied at the University of Prague, becoming bachelor of arts in 1393 and master of arts in 1396. University dean in 1401–2 and then rector in 1409–10. Involved in controversies at Prague between German students and Czech students who were advocating Wyclif's condemned views. A strident critic of clerical abuses, Hus broke with the archbishop of Prague and then the pope, and was consequently excommunicated in 1410. Forced to leave Prague in 1412, he took refuge in southern Bohemia, until he was summoned to appear before the general council at Constance in 1414. Although guaranteed safe conduct, he was imprisoned. His offer to abandon any view that could be proved heretical on the basis of Scripture made matters worse, since it implied the rejection of Church authority. Unwilling to recant, he was burned at the stake. His *Opera omnia* runs to eight volumes (ed. Flajshans 1903–7), and includes a *Sentences* commentary. Associated documents have been edited separately (ed. Palacky 1869). His most important treatise is the *Tractatus de ecclesia* (ed. Thomson 1956; tr. Schaff 1915/1974). Many letters are extant (ed. Novotný 1920; tr. Spinka 1972), as is a contemporary account of his trial (tr. Spinka, in *John Hus at the Council* 1966).

Secondary sources. De Vooght, *L'hérésie* (1960); Hilsch, *Johannes Hus* (1999); Kaminsky, *Hussite Revolution* (1967); Novotný and Kybal, *Zivot a Ucení* [Life and Teachings] (1919–31, in 5 vols.); Spinka, *Concept of the Church* (1966), *John Hus* (1968/1979); DMA (Marin); REP (Bostick).

JOHN ITALOS b. southern Italy, *ca.* 1025; d. after 1082. Byzantine philosopher, notable for his forceful defense of philosophy's preeminence even with regards to theology. Moved to Constantinople *ca.* 1049, becoming the student of Michael Psellos and eventually succeeding him as professor of philosophy. Condemned for heresy and paganism in 1082. His extant works (ed. Ketschakmadze 1966) include a set of ninety-three "quodlibetal" questions; commentaries on the *Topics* and *De interpretatione*; and various other logical treatises.

Secondary sources. Clucas, *Trial of John Italos* (1981); Ierodiakonou, "John Italos on Universals" (2007); Stephanou, *Jean Italos* (1949); Tatakis, *Byzantine Philosophy* (2003); ODB (Kazhdan).

JOHN OF JANDUN b. near Rheims, 1280s; d. Todi (Umbria), 1328. Influential Averroist philosopher. Master of arts in Paris in 1310. Joined the faculty at the newly formed College of Navarre in Paris in 1315. Fled to the court of Ludwig of Bavaria in 1326; condemned as a heretic in 1327. An enthusiastic Aristotelian, as read through an Averroistic lens, Jandun was controversial for pursuing philosophical conclusions even when they conflicted with Church teachings, leaving those teachings to be embraced purely on faith. His work was particularly influential in Italy, where it was copied and later printed many times over. His principal works take the form of question-commentaries on Aristotle: on the *Physics* [*ca.* 1315] (ed. 1587/1969), *De anima* (ed. 1587/1966), *De caelo* (ed. 1552), *Metaphysics* (ed. 1553/1966), and *Parva naturalia* (ed. 1505). Various separate disputations have also survived, including *De habitu intellectus* (ed. Kuksewicz 1961); *De infinitate vigoris Dei* (ed. Kuksewicz 1965); *De notioritate universalium* (ed. Kuksewicz

1970); *De principio individuationis* (ed. Kuksewicz 1963), as well as treatises on the agent sense (ed. Pattin 1988) and on the city of Paris (ed. Le Roux de Lincy and Tisserand 1867).

Sometimes erroneously known as John of Ghent (de Gandavo). Jandun is to be distinguished both from the earlier Paris theology master (*ca.* 1303) by that name, whose works are unknown, as well as from the later Johannes Dullardus of Ghent (1470–1513), whose works were printed.

Secondary sources. Brenet, "Perfection" (2001), *Transferts du sujet* (2003); Ermatinger, "Relations" (1969); Grignaschi, "Pensiero politico" (1958); Kuksewicz, *Théorie de l'intellect* (1968); Lambertini, "Felicitas politica" (1998); MacClintock, *Perversity and Error* (1956); Mahoney, "Themes and Problems in the Psychology" (1987); Maurer, "Divine Causality" (1955/1990); Pattin, *Sens agent* (1988); Schmugge, *Johannes von Jandun* (1966); Vitali and Kuksewicz, "Les deux rédactions" (1984); BCPMA (South); DMA (Brenet); REP (Mahoney); Weijers.

JOHN OF LA ROCHELLE (de Rupella) b. La Rochelle, 1190/1200; d. 1245. Early Franciscan philosopher and theologian. Entered Franciscan order *ca.* 1230. Studied theology at Paris, becoming master in 1236. Assumed the Franciscan chair of theology after Alexander of Hales (1238/41), and held that position until his death. A close associate of Alexander's; played a leading role in assembling his *Summa theologica*. Most studied philosophical works are two treatises on the soul, the *Tractatus de divisione multiplici potentiarum animae* [*ca.* 1233] (ed. Michaud-Quantin 1964), and the *Summa de anima* [*ca.* 1235] (ed. Bougerol 1995; tr. [Fr] Vernier 2001). Also extant are *summae* on the virtues, vices, the articles of the faith, and the ten commandments (all unedited); many biblical commentaries; sermons (part. ed. Lynch 1961); and disputed questions on grace (ed. Hödl 1964) and other theological topics.

Secondary sources. Bougerol, "Œuvres et manuscrits" (1994); Michaud-Quantin, "Les puissances de l'âme" (1949); Salman, "L'averroïsme latin" (1947–8); BCPMA (Sondag); FA; REP (Jordan); Glorieux; Weijers.

JOHN LE PAGE (Pagus, Pago) *fl.* 1230s–40s. Early University of Paris master of arts and theology. Master of arts at Paris in 1225–30; bachelor of theology *ca.* 1240/2 to 1245. One of the first lecturers on Aristotle at the University of Paris. Influential for his logical work [*ca.* 1225–35], including commentaries on the *logica vetus*, all unedited except the *Categories* (ed. Franceschini 1934), and treatises on *appellationes* (ed. de Libera, in "Appellationes" 1984) and *syncategoremata* (ed. Braakhuis, in *Syncategorematische Termen* 1979). A *Sentences* commentary is extant in a *reportatio* and a corrected version (unedited).

Secondary sources. Chenu, "Description du manuscrit" (1932); Gründel, "Sentenzenglose" (1958); Pelster, "Literaturgeschichtliches" (1930); BBK (Schneider); DMA (de Libera); Weijers.

JOHN OF LEGNANO b. Milan, *ca.* 1320; d. Bologna, 1383. Renowned jurist. Educated at the University of Bologna. Taught both civil and canon law there by 1350; professor of both by the mid-1360s. An important advocate of Urban VI during the schism, as argued in his *De fletu ecclesiae* [1378–80] (unedited). His many writings, largely unedited, extend

to legal commentaries, theological and moral treatises, and astronomy. Notable works include *De bello* [1360] (ed. Holland 1917/1964/1995); *De pace* [1364]; *De pluritalite beneficiorum* [1365]; *De iuribus ecclesiæ in civitatem Bononiae* [1376]; and an astrological treatise, *De adventu Christi* [1375]. His fame was judged comparable to Petrarch's in the *Canterbury Tales.*

Secondary sources. Bosdari, *Giovanni da Legnano* (1901); Ermini, *Trattati della guerra e della pace* (1923); Gianazza and D'Ilario, *Vita e opere* (1983); McCall, "Chaucer" (1965), "Writings" (1967); Schork and McCall, "Lament" (1972); Smoller, "Astrology" (2007).

JOHN LESAGE (Johannes Sapiens) b. Belgium; *fl.* 1300–11. Secular theologian. Regent master at Paris *ca.* 1300–2. Dean of the cathedral at Liège in 1304–11. Extant works are a question on whether free will requires the will to move itself (unedited) and a brief *Quodlibet* [1302] (ed. Glorieux 1958).

Secondary source. Glorieux.

JOHN OF MECHLINIA (Hulshot, de Malines) b. Malines (Belgium), 1405; d. 1475. Albertist theologian and philosopher. Matriculated at the University of Cologne in 1424; master of arts in 1426. At Louvain in 1428. Returned to Cologne first as professor of arts in 1430–9 and then of theology in 1440–75. Author of a *Tractatus de homine* (ed. Pattin 1977) and commentaries on the old and new logic (unedited), the *De anima* (ed. 1491, etc.), the *Parva naturalia* (ed. 1491, etc.), *De motu animalium*, and the *De divinis nominibus* (unedited). Also extant is a treatise on demonology, his *Determinatio utrum perfecta Dei opera possint impediri daemonis malitia* (ed. 1493).

Secondary sources. Pattin, "Jan van Hulshout" (1976), "Een vijftiende-eeuws commentaar" (1995); Lohr.

JOHN OF MIRECOURT (de Mercuria, Monachus Albus) *fl.* 1344–7. Cistercian theologian, condemned for his unorthodox philosophical views. Taught at the Cistercian college in Paris. Lectured on the *Sentences* in 1344–5. In 1347, the chancellor of the university condemned forty-one propositions, including the denial of all qualities and motions, even acts of the soul (ed. Denifle and Châtelain, in *Chartularium* II: 1147). The *Sentences* commentary, on Bk. I only, has been published only in part (qq. 2–6 ed. Franzinelli 1958; qq. 13–16 ed. Parodi 1978), but the whole text (ed. Parodi *et al.*) is available on the internet. The only other extant works are two sets of replies made to the censure against him (ed. Stegmüller 1933).

Secondary sources. Caroti, "Les *modi rerum*" (2004); Courtenay, "Whether God Can Undo the Past" (1972–3); Murdoch, "*Subtilitates Anglicanae*" (1978); Parodi, "Linguaggio delle *proportiones*" (1984); Tessier, "Jean de Mirecourt" (1974); Van Neste, "Epistemology" (1976); BCPMA (Beuchot); REP (Somerset).

JOHN OF MURRO (Johannes Minus de Murrovalle) b. Marche; d. Avignon, 1312. Franciscan theologian. Provincial minister of the Marche province in the 1270s. Studied theology in Paris by 1283; licensed as master in 1289. Subsequently taught at the Roman curia. Elected Franciscan minister general from 1296 to 1304, and cardinal-bishop of

Porto from 1302. Various disputed questions and fragments of a *Sentences* commentary survive (unedited except excerpts on free will in Longpré, "Œuvre scolastique" 1947).

Secondary sources. FA; Glorieux.

JOHN OF NAPLES d. *ca.* 1350. Dominican theologian. Studied in Bologna in 1298–1300; subsequently taught in Naples. Studied theology in Paris, becoming regent master in 1315. Returned to Naples in 1317. His principal works are various *Quodlibeta* [*ca.* 1315] (unedited) and disputed questions (ed. 1618; excerpt tr. CTMPT II). A defense of Aquinas, arguing that the Condemnation of 1277 does not affect his teachings, has been edited in his name (ed. Jellouschek 1925).

Secondary sources. Friedman, "Dominican Quodlibeta Literature" (2007); Schneider, *Trinitätslehre* (1972); Kaeppeli.

JOHN OF NOVA DOMUS (Maisonneuve) d. 1418. Flemish arts master. Taught in the Paris arts faculty his entire career, beginning *ca.* 1395. A transitional figure between the innovations of the fourteenth century and the schools and doctrinal conflicts of the fifteenth. Defends a traditional Albertist realism against the innovations of Ockham, Buridan, and others. Extant works include a *Tractatus de esse et essentia* (ed. Meersseman 1933); *Tractatus universalium* (ed. Meersseman 1936); *De universali reali* [attribution in doubt] (ed. Weiler 1968); a commentary on the *Metaphysics* [1413/18]; and a *Commentum aureum super secundum partem Doctrinalis Alexandri* [*ca.* 1405] (both unedited).

Secondary sources. Hoenen and de Libera (eds.), *Albertus Magnus and Albertismus* (1995); Kaluza, *Querelles* (1988); Meersseman, "Les origines" (1932); Wels, *Wissen und Glauben* (2004); DMA (Hoenen); Weijers.

JOHN OF PARIS (John Quidort) b. Paris; d. Bordeaux, 1306. Dominican theologian and early Thomist. Studied at Paris as a Dominican by 1279. Lectured on the *Sentences* there *ca.* 1292/5. Master of theology in 1304. His earliest work is a defense of Aquinas, the *Correctorium "Circa"* [1283/4] (ed. Müller 1941). A vast *reportatio* of his *Sentences* commentary is also extant [1292/6] (Bks. I–II ed. Müller 1961–4). Sixteen theses from this work were investigated as suspect. John's successful *Apologia* [1296/9] survives (ed. Müller 1952), as does a disputed question on the central issue of whether being and essence are distinct [1296/9] (ed. Glorieux, in "La distinction réelle," 1951). A later treatise on the Eucharist [1304/5] (ed. and tr. Martin, in "Eucharistic Treatise" 1975) again brought John under suspicion, and he was censured and suspended as master in Paris; he died while appealing the matter to Pope Clement V. His most studied work is a political treatise, *De potestate regia et papali* [1302/3] (ed. and [German] tr. Bleienstein 1969; tr. Watt 1971). Also extant, among other things, is at least one set of quodlibetal questions (ed. Heiman 1955), a *Quaestio de principio individuationis* (Müller 1974), and a treatise *De modo existendi corpus Christi in sacramento altaris* (ed. Pattin 1977).

Secondary sources. Coleman, "Property" (1983); Dunbabin, "Commentary" (2002); Leclercq, *Jean de Paris* (1942); Grabmann, "Studien" (1922/1979); Müller, "La date" (1959); BCPMA (Friedman); DMA (Solère); Kaeppeli; REP (Jordan); Roensch; Weijers.

JOHN PECHAM (Peckham) b. Patcham (Sussex), *ca.* 1230; d. 1292. Conservative Franciscan champion of Augustinianism. Educated as a youth at the Benedictine monastery at Lewes. Perhaps studied the arts in Paris in the 1240s. Joined the Franciscans at Oxford in the early 1250s; sent to Paris in the 1260s, where he completed his theological studies. Appointed regent master of theology at Paris in spring 1270; served as regent master of theology at Oxford in 1272–5. Elected Franciscan provincial minister of England in 1275. Lecturer to the Papal curia in 1277. Archbishop of Canterbury from 1279 until his death. A follower of Bonaventure's Augustinianism, and an early critic of Aquinas. Many works are extant, including eleven sets of disputed questions (ed. Etzkorn *et al.* 2002); four *Quodlibeta* [1270–7] (ed. Etzkorn and Delorme 1989); treatises on the soul (ed. Melanus 1948) and on optics (ed. Lindberg 1972); an introduction to optics called the *Perspectiva communis* (ed. and tr. Lindberg 1970); questions on the eternity of the world (ed. and tr. Brady and Potter 1993); treatises on poverty (ed. Kingsford *et al.* 1910/1969; ed. Wyngaert 1925); and a treatise on mystical numbers (ed. Hughes 1985). Only the first book of the *Sentences* commentary survives [mid/late 1260s] (unedited). Many letters are extant (ed. Martin 1882–5 in 3 vols.), as well as various sermons, hymns, and poems.

Secondary sources. Doucet, "Notulae bibliographicae" (1933); Boureau, *Théologie et censure* (1999); Brady, "Background" (1974); Douie, *Archbishop Pecham* (1952); Etzkorn, "Career" (1989); Lindberg, "Perspectiva" (1965); Spettmann, "Psychologie" (1919); Wilson, "Critique" (1998); BCPMA (Etzkorn); FA; ODNB (Thompson); REP (Etzkorn); Weijers.

JOHN PETRIZI *fl.* twelfth century. Georgian philosopher, strongly influenced by Neoplatonism. Almost nothing is known of his life. Most important work is his commentary on Proclus's *Elements of Theology* (ed. Nuzubidse and Kauchtschischvili 1937), together with a translation, both in Old Georgian. Also translated Nemesius's *On the Nature of Man*.

Secondary source. SEP (Iremadze).

JOHN PICARDI OF LICHTENBERG d. after 1313. Dominican theologian. Lecturer at the Cologne *studium* in 1303. Bachelor of theology at Paris, *ca.* 1305–8; regent master in 1310–11. Principal extant work is a collection of disputed questions from Cologne (ed. in progress).

Secondary sources. Sturlese, "Johannes Picardi von Lichtenberg" (1982); Glorieux; Kaeppeli; Weijers.

JOHN OF POUILLY (de Polliaco) b. prob. near Laon; d. *ca.* 1328. Paris theologian. Studied the arts and theology in Paris under Godfrey of Fontaines and Henry of Ghent, becoming master of arts in 1295 and then regent master of theology in 1307–12, holding one of the secular chairs. Censured in 1321 by John XXII for views that limited papal authority. Extant works include five *Quodlibeta* and various disputed questions (unedited except for fragments in secondary literature).

Secondary sources. Hödl, "Aulien" (1960), "Non est malitia" (1999), "Die Opposition" (2004), "Quodlibeta" (2007); Koch, "Der Prozess" (1933); Valois, "Jean de Pouilli" (1914); DMA (Bonino); Weijers.

JOHN QUIDORT, *see* John of Paris.

JOHN OF READING b. *ca.* 1270; d. Avignon, 1346. Franciscan theologian. Early years unknown. Ordained subdeacon in 1292, at which point he was already a friar. Studied with the Franciscans at Oxford. Regent master of theology *ca.* 1319, after lecturing on the *Sentences* as a bachelor. Master of theology at the Franciscan *studium* in Avignon beginning in 1322, where he seems to have remained. A devoted follower of Scotus, and (in the Avignon revisions to his *Sentences* commentary) a frequent critic of Ockham. The *Sentences* commentary – his only extant work – survives in only one manuscript, which runs only to distinction 6 of book I. Various partial editions have been made (prol. q. 2 in Brown, "Sources" 1966; prol. qq. 6–7, 10 in Livesey, *Theology and Science* 1989; I.2.2–3 in Etzkorn, "The Existence and Unicity of God" 1981; I.4.3.3 in Gál, "De necessitate specierum intelligibilium" 1969).

    Secondary sources. Alliney, "Fra Scoto e Ockham" (1996); Longpré, "Jean de Reading" (1924); Percan, *Teologia* (1986); BCPMA (Georgedes); FA; ODNB (Brown).

JOHN RIGAUD (Rigaldus) b. Limoges; d. Avignon, 1323. Franciscan moral theologian. Author of the moral handbook *Compendium pauperis* [1311/17] (ed. 1501), and the *Formula confessionis* [1309/12] (unedited).

    Secondary sources. Valois, "Jean Rigaud" (1914); Teetaert, "La 'Formula confessionis'" (1946); FA.

JOHN OF RIPA (de la Marche) b. *ca.* 1325. Innovative Franciscan theologian. Bachelor of theology at Paris *ca.* 1354/5; master of theology *ca.* 1360/8. Known as the *doctor difficilis* and *doctor supersubtilis*, his views tend toward Scotism and were influential enough that Paul of Venice would compose an abbreviation [before 1402] of his *Sentences* commentary (ed. Ruello 1980–2000). Of the commentary itself [*ca.* 1357], only Bk. I has survived complete (prologue ed. Combes and Ruello 1961–70; d. 37 ed. Combes *et al.* 1967). Also extant is a summary, known as the *Conclusiones* (ed. Combes 1957); a response to criticisms, the *Determinationes* [1358] (ed. Combes 1957); and a *Quaestio de gradu supremo* [1354/5] (ed. Combes and Vignaux 1964).

    Secondary sources. Borchert, *Trinitätslehre* (1974); Coleman, "Oxford Calculators" (1975); Combes, "Présentation" (1956), "La métaphysique" (1963), "L'intensité" (1970); Kaluza, "Nature des écrits" (1987); Ruello, *La pensée* (1990), "Projet théologique" (1994); Vignaux, "Forme intensive" (1964), "Preuve ontologique" (1975), "L'averroisme" (1988), "Concept de Dieu" (1981); DMA (Boulnois); FA.

JOHN RODINGTON b. *ca.* 1290; d. Bedford, 1348. Franciscan theologian. Studied theology at Oxford, lecturing on the *Sentences* there in the 1320s. Regent master in 1332–3. Provincial minister of England in 1336–40. His extant works (all unedited) are some *Quodlibeta* and the *Sentences* commentary [prob. 1328–9], which is extant in two redactions and circulated very widely.

    Secondary sources. Barbet, "Le commentaire" (1954); Lechner, "Die Quästionen" (1935); Schabel and Friedman, "Trinitarian Theology" (2003); Tweedale, "Knowledge, Science, and Theology" (1965); FA; ODNB (Courtenay).

JOHN OF ST. GERMANS b. St. Germans (Cornwall); *fl.* 1298–1320. Benedictine theologian. A monk of the Worcester Cathedral Priory. Studied theology at Oxford *ca.* 1298–1302, subsequently becoming lector at the abbey of St. Augustine in Canterbury, in 1308–10. Resumed his theological studies at Paris, serving as regent master in 1312–15, when he returned to England. He returned to teach at Canterbury in 1320. His commentary on the *Posterior Analytics* has been edited under Scotus's name (ed. Vivès vol. II, etc.). Perhaps also by John are a *Sentences* commentary and a collection of disputed questions, each found in Worcester mss (unedited).

Secondary sources. Sullivan, *Benedictine Monks* (1995); Weijers.

JOHN OF SALISBURY (Sarisberiensis) b. Old Sarum (Wiltshire), *ca.* 1115/20; d. Chartres, 1180. Scholar and diplomat. Studied at Paris from 1136, under Peter Abaelard, William of Conches, and other leading scholars. Began to teach while still studying in Paris, from 1141 to 1147. Served as clerk to the archbishop of Canterbury in 1147–63, crossing Europe many times in transit to and from the papal court. Conflict between Archbishop Thomas Becket and King Henry II forced him into exile in Rheims in 1164–70. Returned to England with Becket in 1170, and after the latter's murder stayed on until 1176, when he was elected bishop of Chartres. John's writings are important as an early expression of humanism, and for the light they shed on educational and ecclesiastical practices. His *Entheticus de dogmate philosophorum* [*ca.* 1155] (ed. and tr. Laarhoven 1987) is a satirical poem offering advice to a young student. The *Metalogicon* [1159] (ed. Hall and Keats-Rohan 1991; tr. McGarry 1962) is a defense of the liberal arts against careerism. Most influential was his political–moral treatise, the *Policraticus* [1156–9] (ed. Webb 1909; Bks. I–IV ed. Keats-Rohan 1993; part. tr. Dickinson 1927; Pike 1938; Nederman 1990). Also extant are his brief, unfinished memoirs of the papal court, the *Historia pontificalis* [1164–70] (ed. and tr. Chibnall 1956/1986), as well as 325 letters (ed. and tr. Millor *et al.* 1955–79), and brief lives of St. Anselm [1163] and Thomas Becket [1173] (both ed. Biffi 1990).

Secondary sources. Luscombe, "Bibliography" (1984); Nederman, *John of Salisbury* (2005); Guth, *Johannes von Salisbury* (1978); Kerner, *Logische Struktur* (1977); Liebeschütz, *Medieval Humanism* (1950); Olsen, "Humanism" (1988); Ullmann, "*Policraticus*" (1980); Webb, *John of Salisbury* (1932/1971); Wilks (ed.), *World of John of Salisbury* (1984); BCPMA (Kneepkens); Dronke; ODNB (Luscombe); REP (Jordan); SEP (Guilfoy).

JOHN SCOTTUS ERIUGENA (Scotus, Erigena) b. Ireland, *ca.* 800; d. *ca.* 877. Leading philosopher of the Carolingian era. Presumably received his early education in an Irish monastic school. First mentioned in 850/1 as residing in the itinerant court of Charles the Bald, where he had probably served as arts master, and perhaps physician, for some years. Retained the king's patronage for the remainder of his life, perhaps spending some years in Soissons. Most important work is the *Periphyseon* (or *De divisione naturae*) [862–6] (tr. Sheldon-Williams and O'Meara 1987, etc.), a dialogue in five books on the nature of the universe as understood by Christians. The complex manuscript tradition of this work – revisions in Eriugena's own hand apparently survive – has inspired two separate attempts at a critical edition (ed. Sheldon-Williams 1968–; ed. Jeauneau 1996–). Eriugena's earliest extant works are a commentary on Martianus Capella's *De nuptiis Philologiae et Mercurii*

[840s] (ed. Lutz 1939), and a collection of biblical glosses, *Glossae Divinae Historiae* (ed. Contreni and Ó Néill 1997). His controversial *De divina praedestinatione* [850/1] (ed. Madec 1978, Mainoldi 2003; tr. Brennan 1998) rebuts Gottschalk's dual theory of predestination. It was condemned as Pelagian shortly after being written, and subject to various written attacks. Apparently during this period, Eriugena learned Greek, and went on to make a series of important translations (see Appendix B2): of Maximus the Confessor's *Ambigua* [861/2] (ed. Jeauneau 1988) and *Quaestiones ad Thalassium* (*Scoliae*) [862–6] (ed. Laga and Steel 1980–90), of Gregory of Nyssa's *De hominis opificio* (*De imagine*) [*ca.* 862] (ed. Cappuyns 1965), and most importantly of the corpus of pseudo-Dionysius [860–2] (ed. PL 122), which would be the standard translation until the thirteenth century. Eriugena also wrote a long commentary on pseudo-Dionysius's *Celestial Hierarchy* [*ca.* 865–70] (ed. Barbet 1975), as well as a partial commentary on the Gospel of John [*ca.* 865–70] (ed. and tr. [Fr] Jeauneau 1972), and a sermon on the prologue to John [*ca.* 865–70] (ed. and tr. [Fr] Jeauneau 1969).

Secondary sources. Brennan, *Guide* (1989) [bibliography]; Allard (ed.), *Jean Scot écrivain* (1986); Beierwaltes, *Eriugena* (1994); Carabine, *John Scottus Eriugena* (2000); Jeauneau, *Études érigéniennes* (1987); Madec, *Jean Scot et ses auteurs* (1988); McGinn and Otten, *Eriugena: East and West* (1994); Marenbon, *Circle of Alcuin* (1981); Moran, *Philosophy of Eriugena* (1989); O'Meara, *Eriugena* (1988); Otten, *Anthropology* (1991); Rudnick, *Das System* (1990); Schrimpf, *Das Werk* (1982); Wohlman, *L'Homme, le monde sensible et le péché* (1987); BCPMA (Steel and Hadley); DMA (Erismann); ODNB (Marenbon); REP (Moran); SEP (Moran). Among the many edited volumes, see in particular the proceedings of the Society for the Promotion of Eriugenian Studies.

JOHN SHARPE (Scharpe) b. near Münster, *ca.* 1360; d. after 1414. Oxford theologian and philosopher; leading Oxford realist. Bachelor of arts at the University of Prague in 1379; subsequently studied and taught at Oxford, eventually becoming doctor of theology. Fellow at Queen's College from 1391 to 1403. By 1415 he had returned to Germany as a lecturer at Lüneburg (Saxony). His only edited work is the *Quaestio super universalia* (ed. Conti 1990). Remaining extant writings are commentaries on the *De anima* and *Physics*, an abbreviation of Scotus's *Quodlibeta*, and several short philosophical and theological treatises.

Secondary sources. Conti, "Ontology and Semantics" (2005); de Libera, "Questions de réalisme" (1992); Kennedy, "*De anima*" (1969); Lohr; SEP (Conti); Weijers.

JOHN OF STERNGASSEN d. before 1327. Dominican theologian. In residence at the Strasbourg convent in 1310 and again in 1316. Only major extant work is his lectures on the *Sentences*, delivered perhaps at Paris in 1290/5, or perhaps later (ed. Senner 1995).

Secondary sources. Senner, "Jean de Sterngassen" (1997); Kaeppeli.

JOHN TARTEYS *fl. ca.* 1400. Oxford arts master; realist follower of John Wyclif. Fellow of Balliol College. Extant works include a *Problema correspondens libello Porphyrii* (part. ed. Conti 1990) and various logical treatises, unedited except for his *Obligationes* (ed. Ashworth 1992). The *Summa insolubilium* edited under the name of John Wyclif is sometimes attributed to Tarteys.

Secondary source. Emden.

JOHN TAULER b. Strasbourg, *ca.* 1300; d. 1361. Influential Dominican preacher and mystic. A Dominican friar from his youth, he studied at the Dominican *studium* in Cologne in 1324, when Eckhart was a master and Henry Suso a fellow student. Lived in Strasbourg and Basel; devoted himself to preaching and spiritual direction. A popular figure among later Reformers, Tauler published nothing during his life; his literary output consists of seventy-nine sermons in Middle High German collected by Dominican nuns.

Secondary sources. Gnädinger, *Johannes Tauler* (1993); Ozment, *Homo spiritualis* (1969); Kaeppeli; REP (Bussanich).

JOHN VENATOR, *see* John Huntman.

JOHN VERSOR d. after 1482. Arts master and theologian. Master of arts at Paris in 1435, and subsequently master of theology there for many years. His work has both Thomistic and Albertist elements. Author of commentaries on almost all of Aristotle's principal works, as well as on Peter of Spain and Donatus minor. All are available in early printed editions.

Secondary sources. Lohr; Weijers.

JOHN OF WALES (Wallensis, Gallensis) b. north Wales, *ca.* 1220; d. Paris, 1285. Franciscan theologian and moralist. Studied theology in Oxford; joined the Franciscans in 1258. Served as Franciscan master at Oxford in 1259–62. Relocated to Paris by 1270, eventually serving as regent master there in 1281–3. Many works survive, of which the most popular were pastoral handbooks, especially the *Communiloquium* or *Summa collationum* [1265/69] (ed. 1489/1964).

Secondary sources. Swanson, *John of Wales* (1989); Glorieux; ODNB (Swanson).

JOHN WENCK b. Herrenberg (southwest Germany), *ca.* 1396; d. Heidelberg, 1459. Albertist philosopher and opponent of Nicholas of Cusa. Student at the University of Paris, becoming master of arts in 1415. At the University of Heidelberg from 1426, studying theology and receiving his doctorate in 1432. Taught on the theology faculty there until his death, serving as rector repeatedly. Wenck is best known for his *De docta ignorantia* [1442/3] (ed. and tr. Hopkins 1988), an attack on Nicholas of Cusa, to which Cusa made a fierce reply in his *Apologia doctae ignorantiae* [1449] (tr. Hopkins 1988). Various brief treatises are extant but unedited, except for a Middle High German *Büchlein von der Seele* (ed. Steer 1967).

Secondary sources. Haubst, "Johannes Wenck" (1951); BBK (Olszewsky); Weijers.

JOHN WENT d. 1348. Franciscan theologian. Lectured on the *Sentences* at Oxford in 1336–7 (unedited). Lector at the Franciscan house in Oxford [1339–40]; subsequently served as provincial minister in England until his death.

Secondary sources. Edwards, "Themes and Personalities" (2002); Kennedy and Romano, "Divine Omnipotence" (1987).

JOHN OF WESEL (Vessalia) *fl.* mid-fourteenth century. Parisian arts master. At Paris from 1344 to 1353. Four works have been tentatively ascribed to him: questions on the *Ars vetus* and on the *Prior Analytics* (both unedited), and sets of questions on *obligationes* and *insolubilia* (part. ed. Spade, in "Three Questions" 1996).

Secondary sources. Lohr; Weijers.

JOHN WYCLIF (Wycliffe) b. Wycliffe (Yorkshire), *ca.* 1325; d. Lutterworth, 1384. Heterodox and influential philosopher and theologian; a leading advocate of metaphysical realism. Studied at Oxford from *ca.* 1350. Ordained priest in 1351. Master of Balliol in 1360. Began studying theology by 1362, receiving his doctorate in 1372/3. Condemned for his ecclesiastical views by Pope Gregory XI in 1377, and by the university in 1381 for his denial of the doctrine of transubstantiation. That same year he withdrew to the parish church in Lutterworth where he was rector. There he continued to write, even as further charges of heresy were brought against him. His philosophical views and criticisms of the Church spread widely in England and abroad even before his death: the so-called Lollards were influential in England all through the following century, and the Hussite rebellion in Bohemia took many ideas directly from Wyclif's work. Only in 1415 was he formally condemned as a heretic, at the Council of Constance.

Wyclif's very extensive writings, in both Latin and English, have not yet been completely edited, and still await systematic philosophical study. Many of the Latin writings have been edited by the Wyclif Society (1883–1922, in 36 vols.). Of these the early works are largely logical and philosophical: a *De logica* [*ca.* 1360], a *Continuatio logicae* [prob. 1360/3] (both ed. Dziewicki 1893), and a *Summa insolubilium* [1368–9] (ed. Spade and Wilson 1986); *De ente in communi* [*ca.* 1365] and *De ente primo in communi* [*ca.* 1365] (both ed. Thomson 1930); *De actibus animae* [*ca.* 1365] (ed. Dziewicki 1902); *Purgans errores circa universalia in communi* [1366/8] (ed. Dziewicki 1909); *De ente praedicamentali* [*ca.* 1369] (ed. Beer 1891); *De intelleccione Dei* and *De volucione Dei* [both *ca.* 1370] (both ed. Dziewicki 1909); *Tractatus de universalibus* [*ca.* 1368–9, or 1373–4] (ed. Müller 1985; tr. Kenny 1985); *De materia et forma* [*ca.* 1370–5] (ed. Dziewicki 1902), and *De Trinitate* [1371–4] (ed. du Pont Breck 1962). Wyclif organized many of these shorter treatises – and other works yet to be edited – into a *Summa de ente*, whose structure scholars have had to piece together. Beginning *ca.* 1373, Wyclif turned his attention increasingly to theological and ecclesiastical issues: these include works on law and dominion such as *De civili dominio* [1375/6] (ed. Poole and Loserth 1885–1904; part. tr. CTMPT II), *De ecclesia* [1378] (ed. Loserth and Matthew 1886), and *De potestate papae* [*ca.* 1379] (ed. Loserth 1907); works asserting the authority and inerrancy of Scripture, such as *De veritate sacrae scripturae* [1377/8] (ed. Buddensieg 1905–7; tr. Levy 2001) and the *Trialogus* [1382/3] (ed. Lechler 1869); and, most notoriously of all, Wyclif's rejection of transubstantiation, the *De eucharistia* (ed. Loserth 1892). In addition to these academic Latin treatises, there are Latin polemical works (ed. Buddensieg 1883/1966) and English works (part. ed. Matthew 1880/1978; Lindberg 1991). For later English Wycliffite texts, see Hudson, *Selections* (1997).

Secondary sources. Thomson, *Latin Writings* (1983) [works]; Catto, "Wyclif and Wycliffism" (1992); Conti, "Analogy and Formal Distinction" (1997); Daly, *Political Theory* (1962); Evans, *Myth and Reality* (2005); Farr, *Legal Reformer* (1974); Fumagalli

Beonio Brocchieri and Simonetta (eds.), *Wyclif* (2003); Ghosh, *Wycliffite Heresy* (2001); Hudson, *Premature Reformation* (1988); Hudson and Wilks (eds.), *From Ockham to Wyclif* (1987); Kenny, *Wyclif* (1985); Kenny (ed.), *Wyclif in his Times* (1986); Lahey, *Philosophy and Politics* (2003); Levy, *Scriptural Logic* (2003); Levy (ed.), *Companion* (2006); McFarlane, *English Non-Conformity* (1952); Michael, "Body and Mind" (2003); Mallard, "Biblical Authority" (1961); Robson, *Oxford Schools* (1961); Thomson, "Philosophical Basis" (1931); Wilks, *Political Ideas* (2000); Workman, *John Wyclif* (1926); BCPMA (Kronen); ODNB (Hudson and Kenny); REP (Catto); SEP (Conti, Lahey); Weijers.

JORDANUS *fl. ca.* 1240. Grammarian. Master of arts at Paris. Author of the *Notulae super Priscianum Minorem* [*ca.* 1240] (part. ed. Sirridge 1980).

   Secondary sources. Gauthier, "Notes sur les débuts" (1982); Sirridge, "Socrates' Hood" (1983); Weijers.

JOSEPH ALBO b. Aragon, *ca.* 1380; d. Castile, 1444. Systematic theologian and philosopher. Studied with Ḥasdai Crescas in Saragossa. Spiritual leader of the community of Daroca (Aragon) during a time of violent persecution, and, after Daroca's destruction, of the community of Soria (Castile). Played a leading role in the debate between Christians and Jews at Tortosa in 1413–14. Although the debate was an exercise in Christian propaganda, it gave rise to Albo's masterpiece, the four-part *Sefer ha-ʿIqqarim* (*Book of Principles*) [finished *ca.* 1425] (ed. and tr. Husik 1929, in 5 vols.; part. tr. Manekin, in *Writings* 2007). Organized around three core principles of belief – in God's existence, in revelation, and in divine justice – the treatise would become widely read both in its original Hebrew and in Latin translation.

   Secondary sources. Back, *Joseph Albo's Bedeutung* (1869); Bleich, "Providence" (1997); Harvey, "Albo's Discussion of Time" (1979–80); Husik, "Last of the Mediaeval Jewish Philosophers" (1928–30); Lasker, *Jewish Philosophical Polemics* (1977); Lerner "Natural Law" (1964); Rauschenbach, *Jüdische Philosophie* (2002); REP (Frank); SEP (Ehrlich).

JOSEPH IBN CASPI b. Languedoc, 1279; d. after 1332. Prolific commentator and scholar. Traveled widely. Strongly Aristotelian in outlook, he was influenced by both Jewish and Islamic authors. Author of a commentary on Maimonides (ed. Werbluner 1848), as well as various biblical commentaries, such as the *Geviaʾ Kesef* (ed. and tr. Herring 1982).

   Secondary sources. Mesch, "Principles of Judaism" (1982); HIP (Leaman); REP (Leaman); Sirat.

JOSEPH IBN ṢADDIQ d. 1149. Poet and Neoplatonic philosopher. Little is known of his life, beyond that he was a rabbinical judge at Cordoba from 1138. His major work, *Al-ʿĀlam al-ṣaghīr*, is extant only in Hebrew translation, as *Ha-Olam ha-Katan* (*The Microcosm*) (ed. and tr. Haberman 2003). It treats human beings as a microcosm of the world.

   Secondary sources. Vajda, "Philosophie et théologie" (1949); Wolfson, "Divine Attributes" (1965); REP (Rudavsky).

AL-JUBBĀʾĪ (Abū ʿAlī Muḥammad) b. Jubba (Khuzistan); d. 915/16. Leading Muʿtazilī theologian. Studied in Basra, becoming master there and training two prominent students: his son, Abū Hāshim, and al-Ashʿarī, who would found a rival tradition. No complete works are extant.

Secondary sources. Frank, "Attribute" (1982); Gimaret, "Matériaux" (1976); EI (Gardet).

JUDAH BEN SOLOMON HA-COHEN (Ibn Matqa) b. Toledo, *ca.* 1215. Encyclopedist. Born into a family of celebrated astrologists. Composed a three-part philosophical-scientific encyclopedia, the *Midrash ha-Ḥokhmah*, first in Arabic [1230s] (not extant) and then in Hebrew [1247] (only excerpts edited), while at the court of Frederick II in Lombardy.

Secondary sources. Harvey (ed.), *Medieval Hebrew Encyclopedias* (2000); Sirat.

JUDAH HALEVI b. Tudela (northeast Spain), *ca.* 1075; d. 1141. Physician, philosopher, poet. Moved to Andalusia as a youth, where he became well known for his poetry and settled in Granada. After marrying and establishing a thriving medical practice in Toledo, he moved with his wife and daughter to Cordoba. Attempted to emigrate to the Holy Land in 1140, but died either in Egypt or soon after arriving in Israel. His principal philosophical work is a dialogue between a philosopher and a Jewish king, the *Khazari* [1130–40] (ed. Baneth 1977; tr. Hirschfeld 1964).

Secondary sources. Kogan, "Use of Philosophy in the *Kuzari*" (2003); Silman, *Philosopher and Prophet* (1995); HIP (Kogan); HJP (Goodman); REP (Goodman); SEP (Kogan).

JUDAH ROMANO (ben Moses ben Daniel) b. *ca.* 1292; d. after 1330. Translator and philosopher. Active in the Naples court of Robert II of Anjou. Hebrew translator of Latin scholastic texts; his own views were influenced by Maimonides and Aristotle, as interpreted by Latin scholastics. (See Appendix B6.)

Secondary source. REP (Rigo).

JULIAN OF NORWICH b. England, 1342; d. *ca.* 1416. Anchoress and mystic. Perhaps a Benedictine nun. By 1394 she had chosen the solitary existence of an anchorite at St. Julian's Church in Norwich. A series of sixteen visions during a grave illness at the age of thirty inspired her only work, the celebrated *Revelations of Divine Love* or *Book of Showings* (ed. [Middle English] Colledge and Walsh 1978; tr. [modern English] Colledge and Walsh 1978, etc.). The short version of this work [1373/93] confines itself to describing these mystical experiences; the long version [1393] interprets the original visions and describes the mystical experiences that had been continuous for the following twenty years.

Secondary sources. Jantzen, *Julian of Norwich* (1987); Upjohn, *In Search* (1989); ODNB (Bhattacharji).

AL-JURJĀNĪ, ʿAlī ibn Muḥammad (al-Sayyid al-Sharīf) b. Astarabad (Persia), 1339; d. Shiraz, 1434. Wide-ranging philosopher and theologian. Studied in Harat and subsequently traveled to Egypt, Constantinople, and Shiraz, where he was appointed teacher in 1377. His theological works are heavily philosophical, including most prominently

his commentary on al-Ījī's *Mawāqif* (*Stations*) (ed. Mahdi 1977). Other prominent philo-
sophical writings include a philosophical lexicon, *Al-Taʿrīfāt* (ed. ʿUmayrah 1987; tr. [Fr]
Gloton 2006) and a *Risālat al-wujud* (*Treatise on Being*) (ed. Taqawi 1942).

Secondary sources. Anawati, "La doctrine des accidents" (1974); BEIP (Aminrazavi);
EI (Tritton).

AL-JUWAYNI (Abū al-Maʿālī Abd al-Malik) b. near Nishapur, 1028; d. near Nishapur,
1085. Ashʿarite theologian. From a family of famous teachers, he took over his father's
teaching position at an early age. Political events forced him to leave for Baghdad.
Eventually he taught in Mecca and Medina in 1058–61. With a change in the political
situation back home, Juwaynī returned to Nishapur, where he taught until his death,
numbering al-Ghazālī among his students. Principal interests are jurisprudence and
kalām. His *Burhān fī uṣūl al-fiqh* (*The Proofs of Jurisprudence*) (ed. al-Dīb 1980) aims to
set out an Ashʿarite juridical method. In *kalām*, two prominent works are *Al-Shāmil fī
uṣūl al-dīn* (*Totality of the Foundations of Law*) (ed. Klopfer 1959) and *Al-Irshād ila qawāṭiʿ
al-adillah fī uṣūl al-iʿtiqād* (*The Guide to the Cogent Proofs of the Principles of Faith*) (ed. Mūsa
and ʿAbd al-Ḥamīd 1950).

Secondary sources. BEIP (İskenderoğlu); EI (Brockelmann); REP (Leaman and
Albdour).

AL-KINDĪ, ʿAbd al-Masīḥ *fl.* early tenth century (?). Author of a letter written in defense
of Christianity. The author's identity is otherwise unknown, and even the dating is
uncertain, with the early ninth century sometimes suggested. He is generally thought to
be a Nestorian Christian. The letter (ed. Tien 1880; tr. Muir 1882), written in response
to a Muslim friend, attacks Islam in some detail. It was translated into Latin in 1141 (ed.
González Muñoz 2005).

Secondary source. EI (Troupeau).

AL-KINDĪ (Abū Yūsuf Yaʿqūb ibn Isḥāq) b. Basra, *ca.* 800; d. *ca.* 870. Foundational
figure in Arabic philosophy. An ethnic Arab from the fabled Kinda tribe. Educated
in Baghdad; served as a scholar and tutor in the court of successive ʿAbbāsid caliphs.
Although he himself probably did not know Greek, he oversaw a group of scholars
who were systematically translating Greek philosophical and scientific texts into Arabic.
A tenth-century list of titles indicates that al-Kindī wrote hundreds of treatises, mainly
scientific and mathematical, most of which are no longer extant. His scientific work was
highly influential, particularly the *De radiis stellarum* (ed. D'Alverny and Hudry 1974),
which accounts for all physical interaction in geometric terms, and a treatise on optics,
the *De aspectibus* (ed. Björnbo and Vogel 1912), both of which survive only in Latin.
Of the surviving philosophical works (ed. Abū Rīda 1950–3), the most influential is
the *Fī al-falsafa al-ūlā* (*On First Philosophy*) (tr. Ivry 1974), which combines Neoplatonic
and Aristotelian influences into a treatise that understands metaphysics as the study of
God. Another influential treatise is a collection of philosophical definitions, the *Fi ḥudūd
al-ashyāʾ wa-rusūmihā* (*On the Definitions of Things and their Descriptions*) (tr. Klein-Franke
1982). Al-Kindī surveys the work of Aristotle in his *Fī kammiya kutub Arisṭūṭālīs* (*On the
Quantity of Aristotle's Books*) (tr. [Ital] Guidi and Walzer 1940); his *Risālat al-ʿaql* (*On the*

Intellect) (tr. McCarthy 1964) is the first Arabic attempt to grapple with the notorious Aristotelian divisions of intellect, and was translated into Latin. Some brief translations are contained in McGinnis and Reisman (*Classical Arabic Philosophy* 2007), and more are forthcoming (tr. Adamson and Pormann forthcoming). Still more is in French, for both the philosophical and the scientific work (tr. Gimaret 1976; tr. Rashed and Jolivet 1997–8 [with Arabic], tr. Mestiri and Dye 2004).

Secondary sources. Adamson, "Before Essence" (2002), "Reception" (2005), *Al-Kindi* (2007); Butterworth, "Beginnings of Islamic Political Philosophy" (1992); Druart, "Ethics" (1993); Endress, "Circle" (1997); Gutas, *Greek Thought, Arabic Culture* (1998); Ivry, *Metaphysics* (1974); Jolivet, *L'intellect* (1971); Lindberg, "Theory of Vision" (1971); Staley, "Creation" (1989); Tornero Poveda, *La transformacion* (1992); Travaglia, *Doctrine of Rays* (1999); BCPMA (Jolivet); EI (Jolivet and Rashed); HIP (Klein-Franke); REP (Kennedy–Day); SEP (Adamson).

AL-KIRMĀNĪ (Ḥamīd al-Dīn) b. Kerman (Iran); d. after 1020. Ismāʿīlī missionary and philosopher. Active in the Ismāʿīlī cause mainly in Iraq, though he journeyed to Cairo in the early eleventh century to intervene in a dispute over the nature of the imamate. His work attempts to point Ismāʿīlī thought in an Aristotelian direction. Principal texts are the *Kitāb al-riyāḍ* (*Book of Gardens*) (ed. Tāmir 1960) and the *Kitāb rāḥa al-ʿaql* (*The Peace of Intellect*) [1020/1] (ed. Ḥusayn and Ḥilmī 1953). His main work regarding the imamate has recently been translated (ed. and tr. Walker 2007).

Secondary sources. De Smet, *Quiétude de l'intellect* (1995); Walker, *Ḥamīd al-Dīn al-Kirmānī* (1999), "The Ismāʿīlīs" (2005); EI (de Bruijn).

LAMBERT *fl.* 1250s. Author of the *Logica* or *Summa Lamberti* [1253/7] (ed. Alessio 1971), a work in the terminist tradition of Peter of Spain. The identity of this Lambert is uncertain: he is perhaps Lambert of Auxerre, a friar at the Dominican house in Auxerre, or the contemporary Lambert of Lagny. The *Logica* contains chapters *De propositionibus*, *De praedicabilibus*, *De praedicamentis*, *De postpraedicamentis*, *De sillogismo*, *De locis*, *De fallaciis*, *De suppositionibus et significationibus* [the last tr. CTMPT I].

Secondary sources. Ashworth, "Signification and Modes" (1991); Read, "Properties of Terms" (2006); CHLMP; Kaeppeli; Weijers.

LANDULPH CARACCIOLO (de Mazoriis) b. Naples; d. 1351. Franciscan theologian. Lectured on the *Sentences* at Paris, probably 1318–19. Master of theology by 1325, at which point he was the Franciscan provincial minister of Terra Laboris (southern Italy). Bishop of Castellammare in 1327; archbishop of Amalfi from 1331 until his death. His *Sentences* commentary, on all four books, circulated very widely (Bk. II ed. Venice 1487). Also extant are various biblical commentaries (unedited) and sermons (part. ed. 1637).

Secondary sources. Schabel, "Divine Foreknowledge" (1999), "Predestination" (2002), "Parisian Commentaries" (2002); BCPMA (Schabel); FA.

LANFRANC OF BEC b. Pavia, *ca.* 1010; d. 1089. Theologian and ecclesiastical leader. Early education in Italy; left for France *ca.* 1031, teaching in various locations and possibly studying at Chartres. Taught at Avranches (Normandy) beginning *ca.* 1039, before

joining the newly founded monastery at Bec in 1042. He quickly became prior and opened a school that achieved a wide reputation, attracting many of the foremost minds of the era, including Anselm of Canterbury (as of 1059). In 1066 he was appointed abbot of St. Stephen's Abbey in Caen (Normandy) by William, duke of Normandy, and was subsequently consecrated archbishop of Canterbury in 1070. From that post, which he held until his death, Lanfranc exerted considerable influence on the shaping of Norman England. The surviving works are less impressive than his reputation would suggest. Chief among these is the treatise *De corpore et sanguine Domini* [*ca.* 1066] (ed. and tr. [Ital] Martello 2001), an attack on the eucharistic theology of Berengar of Tours. From his time at Bec we have annotations on various patristic texts, focused largely on grammatical and textual matters. His commentaries on the Pauline epistles circulated widely (PL 150). While archbishop, Lanfranc composed his influential monastic constitutions (ed. and tr. Knowles and Brooke 2002). Many letters have also survived (ed. and tr. Clover and Gibson 1979).

   Secondary sources. Collins, *Teacher in Faith* (2007); Cowdrey, "Enigma" (1994), *Lanfranc* (2003); de Montclos, *Lanfranc et Bérenger* (1971); d'Onofrio (ed.), *Lanfranco di Pavia* (1993); Gibson, *Lanfranc* (1978); Holopainen, *Dialectic and Theology* (1996); Huygens, "Bérenger, Lanfranc" (1965); Mantienne, *Lanfranc* (2006); DBI (Cowdrey); DMA (Brouwer); ODNB (Cowdrey).

AL-LAWKARĪ (Abū al-ʿAbbās) b. Lawkar (Persia); d. *ca.* 1123. Second-generation disciple of Avicenna; studied with Avicenna's prominent student Bahmanyar. Principal work is his multi-volume *Bayān al-ḥaqq bi-ḍamān al-ṣidq* (*The Explanation of Truth from the Point of View of Trust*), an account of Avicenna's logic (part ed. Dībājī 1985), natural philosophy (unedited), and metaphysics (ed. Dībājī 1995), as filtered through Bahmanyar.

   Secondary sources. Marcotte, "Preliminary Notes" (2006); Reisman, *Making of the Avicennan Tradition* (2002); BEIP (Kalin).

LEVI BEN GERSHOM (Gersonides, ben Gerson, Leon of Bagnols, Ralbag) b. Provence, 1288; d. Provence, 1344. Influential philosopher and biblical scholar. Spent his entire life in southern France. His major philosophical work, *Sefer Milḥamot ha-Shem* (*The Wars of the Lord*) [1329] (ed. 1866/1923; tr. Feldman 1984–99), argues that religion could be defended on rational, philosophical grounds. Distinguished by its precise, analytic style, its six books range over questions about creation, the soul's immortality, prophecy, divine providence, and astronomy. Gershom's controversial views in all these areas were sharply criticized by later Jewish authors. His Aristotelianism is heavily influenced by Averroes, on whose commentaries he composed a series of supercommentaries [1321–4] (only excerpts published). A distinguished scholar of Jewish law, whose commentaries on the Torah have been printed many times. Various critical editions are in progress; available translations include the Song of Songs [1326] (ed. and tr. Kellner 1998), and the Book of Job [1325] (tr. Lassen 1946). Also authored a logical treatise, *Sefer ha-Heqesh ha-Yashar* (*Book of the Correct Syllogism*) [1319] (tr. Manekin 1992), which was translated anonymously into Latin. His strong interests in mathematics led to his *Sefer Maʿaseh Hoshev* (*The Work of a Counter*) [1321] (ed. and tr. [German] Lange 1909).

Secondary sources. Freudenthal, *Studies* (1992) [bibliography by Keller]; Dahan, *Gersonide* (1991); Eisen, *Gersonides on Providence* (1995); Feldman, "Debate Concerning Determinism" (1984); Glasner, "Levi ben Gershom and the Study of Ibn Rushd" (1995); Manekin, "Conservative Tendencies" (2003); Rudavsky, *Time Matters* (2000); Sirat *et al.* (eds.), *Méthodes de travail* (2003); Touati, *La pensée philosophique et théologique* (1973); BCPMA (Pessin); HIP (Freudenthal); REP (Feldman); SEP (Rudavsky).

LUDOLPH MEISTERMANN OF LÜBECK *fl.* 1390s. Logician, active at the universities of Prague and Vienna. Known works are a lengthy set of questions *De significatione propositionum* [1392], and sets of questions on supposition, appellation, and *insolubilia* [1393] (all unedited).

Secondary sources. Bos, "Logic of Fiction" (1998); Spade, *Mediaeval Liar* (1975).

MANEGOLD OF LAUTENBACH b. Lautenbach (Alsace), *ca.* 1045; d. prob. Marbach, after 1103. Scholar and ecclesiastical polemicist. Studied in both France and Germany. A married itinerant teacher in the 1060s, he later became an Augustinian monk in Rottenbuch. In 1094 he was prior at Marbach. The two intact works known to be his are a defense of the papacy against philosophical encroachments, the *Liber contra Wolfelmum* [*ca.* 1085] (ed. Hartmann 1972/1991; tr. Ziomkowski 2002), and the *Liber ad Gebehardum* [*ca.* 1085] (ed. Francke 1891), which takes the pope's side in the investiture controversy and develops an interesting account of sovereignty. There are also various surviving references to, and fragments of, commentaries and scholia on classical texts and the Bible (largely unedited).

Secondary sources. Endres, "Manegold von Lautenbach" (1904); Gross, "Erbsündenlehre" (1960); Hartmann, "Anfänge" (1970); Herren, "Scholia" (2004); Koch, *Manegold von Lautenbach* (1902/1965); Laakmann, *Königsgewalt* (1969); Stead, "Manegold of Lautenbach" (1914); BBK (Schmidt); CHLMP; Dronke.

MARGUERITE OF OINGT b. Lyonnais, *ca.* 1240; d. 1310. Carthusian nun and mystic. Entered a women's Carthusian community at Poleteins (near Lyon), becoming prioress by 1288. Extant works (ed. Duraffour *et al.* 1965; tr. Blumenfeld-Kosinski 1990) include the influential *Pagina meditationum* [Latin] and the *Speculum* [Franco-Provencal].

Secondary sources. McGinn, *Flowering of Mysticism* (1998); Muller, *Autre côté du miroir* (1999); Petroff, *Body and Soul* (1994).

MARGUERITE OF PORETE b. *ca.* 1250; d. Paris, 1310. French mystic. Described as a beguine, she was living around Valencienne (Belgium) in the early 1300s, when her book, *Le mirouer des simples ames aneanties* [*ca.* 1300] (ed. Guarnieri 1986; tr. Colledge *et al.* 1999), was condemned and publicly burnt. Written in Old French, and extant in Latin translation as well, the book characterizes the final goal of human life as a single, simple unitive act of will with God. It was subsequently enlarged, clarified, and eventually approved by a commission of theologians, but her repeated refusal to submit to ecclesiastical authority led her to be condemned as an unrepentant heretic, and she was burned at the stake.

Secondary sources. Hollywood, *Soul as Virgin Wife* (1995); Leicht, *Marguerite Porete* (1999); McGinn, *Flowering of Mysticism* (1998), *Meister Eckart* (1994); Muller, *Autre côté du miroir* (1999); Petroff, *Body and Soul* (1994); Richir, *Marguerite Porete* (2002); DMA (Boulnois).

MARSILIUS OF INGHEN b. Nijmegen, *ca.* 1340; d. Heidelberg, 1396. Influential natural philosopher and famed master of arts at the University of Paris from 1362 to 1379, where he twice served as rector. Served as the University of Heidelberg's first rector in 1386, where he taught until his death, becoming doctor of theology in 1396. Traditionally described as a nominalist and heavily influenced by the views of John Buridan, but an independent thinker in many respects. His most influential works are his question-commentaries on Aristotle: *De generatione et corruptione* (ed. 1505/1970, etc.), *De anima*, *Metaphysics*, *Parva naturalia*, and the *Ethics* (all unedited), and an *Abbreviationes* on the *Physics* (ed. 1521, etc.). (A question-commentary on the *Physics* printed under the name "Johannes Marcilius Inguen" [ed. 1518/1964] is not by Marsilius.) Also important are various logical treatises, surviving in many manuscripts but unedited except for a treatise on the properties of terms (ed. and tr. Bos 1983). His last work was his *Sentences* commentary [1392–6] (ed. Wieland *et al.* 2000).

Secondary sources. Hoenen, "Bibliographie" (1989–90); Bakker, "Aristotelian Meta-physics" (2001); Braakhuis and Hoenen (eds.), *Marsilius of Inghen* (1992); Hoenen, *Divine Knowledge* (1993), "Commentary on the *Sentences*" (2002); Hoenen and Bakker (eds.), *Philosophie und Theologie* (2000); Marshall, "Parisian Psychology" (1983); Reina, "Comprehensio veritatis" (1994), *Hoc Hic et Nunc* (2002); Ritter, *Studien* (1921); Wielgus (ed.), *Werk und Wirkung* (1993); BCPMA (Hoenen); DMA (Hoenen); Lohr; REP (Bos); SEP (Hoenen); Weijers.

MARSILIUS OF PADUA (Marsiglio dei Mainardini) b. Padua, 1275/80; d. 1342/3. Famous political theorist. Practiced medicine and lectured on natural philosophy at the University of Paris, becoming rector in 1312–13. His major work is the *Defensor pacis* [before June 1324] (ed. Previté-Orton 1928, etc.; tr. Gewirth 1956/2001, Brett 2005), which argues for the supremacy of the temporal powers of the state over the spiritual powers of the papacy. Left Paris in 1325, entering into the service of Emperor Ludwig of Bavaria. Other works in this same vein include *De translatione imperii* [prob. 1326–7] and *Defensor minor* [1341] (both ed. Jeudy and Quillet 1979; tr. Nederman 1993), a summary of the *Defensor pacis* which responds to criticisms made by William of Ockham.

Secondary sources. Miethke, "Literaturbericht" (1993); Garnett, *The Truth of History* (2006); Gewirth, *Marsilius of Padua* (1951), "Republicanism" (1979); Lewis, "Positivism" (1963); Moreno-Riano, *World of Marsilius* (2006); Nederman, *Community and Consent* (1995); Quillet, *Philosophie politique* (1970); Tierney, "Marsilius on Rights" (1991); BCPMA (Bertelloni); REP (McGrade); Weijers; vols. 5–6 of *Medioevo* (1979–80) are devoted to Marsilius.

MARTIN (Magister Martinus) *fl. ca.* 1200. Paris theologian known only as the author of the *Compilatio quaestionum theologiae* (unedited). Influenced by Gilbert of Poitiers.

Secondary sources. Heinzmann, *Die Compilatio* (1964); Landgraf, *Introduction* (1973); Munsch, "Treatise on the Incarnation" (2002) (edits the material on the incarnation).

MARTIN OF ALNWICK (Martinus Anglicus) b. Northumberland; d. Newcastle, 1336. Franciscan theologian. Studied at Oxford, where he incepted as regent master in 1304. Took part in disputes over mendicant poverty at Avignon in 1311. Various questions from his *Sentences* commentary are extant (unedited). The logical treatises of "Martinus Anglicus" are now viewed as the work of a different, later author.

Secondary source. ODNB (Brown).

MARTIN OF DACIA (Dacus) b. Denmark; d. Paris, 1304. Philosopher and grammarian. Professor on the arts faculty at Paris in the 1270s and master of theology at Paris *ca.* 1285. Appointed chancellor to the Danish King Erik VI in 1287/8, a position he retained until close to his death. Most influential was his grammatical treatise *De modis significandi* [*ca.* 1270], an important early attempt at a systematic theory of grammar. Also authored question-commentaries on the *ars vetus*. His complete work is available in a critical edition (ed. Roos 1961).

Secondary sources. Bursill-Hall, *Speculative Grammars* (1971); Pinborg, "Speculative Grammar" (1982); Roos, *Die Modi significandi* (1952); BCPMA (Rivera); CHLMP; Weijers.

MARTINUS ANGLICUS *fl.* 1335/70. English logician. Author of treatises *De veritate et falsitate propositionis* (ed. de Rijk, in *Some 14th Century Tracts* 1982), *De obligationibus* (ed. Schupp 1993), and *Consequentiae* (unedited). His identification with Martin of Alnwick is now generally rejected.

Secondary source. Ashworth, "English *Obligationes*" (1983).

MATTHEW OF AQUASPARTA b. near Todi (Umbria), *ca.* 1238; d. 1302. Franciscan theologian in the Augustinian tradition. Joined the Franciscan order *ca.* 1260; sent to Paris *ca.* 1268. Lectured on the *Sentences* [prob. 1271–2], and was then apparently assigned to teach at the Bologna *studium* in 1273–7 before incepting as regent master at Paris *ca.* 1278–9. Subsequently appointed to the Roman *studium* in 1279–87. His academic career came to an end when he was elected minister general of the Franciscan order in 1287–9 and then also cardinal in 1288–1302. Matthew's main influences are his older contemporaries Bonaventure and John Pecham, whom he follows in attempting to craft an Augustinian Aristotelianism that is more conservative than that of the Dominicans Aquinas and Albert the Great. His principal works are his *Sentences* commentary (Bks. I, II, and IV are extant in a single autograph copy, unedited) and a series of *Quodlibeta* [1278–5] (unedited), as well as a great many disputed questions, among the more philosophical of which are questions on illumination (ed. Quaracchi 1883), the soul (ed. Gondras 1957–61), the separated soul (ed. Quaracchi 1959), faith and cognition (ed. Quaracchi 1957; part tr. McKeon, *Selections* 1930; part. tr. Fairweather, *Scholastic Miscellany* 1956), the production of things and providence (ed. Gál 1956), and grace (ed. Doucet 1935 [with detailed biobibliographical information]).

Secondary sources. Beha, "Theory of Cognition" (1961); Bérubé, "Henri de Gand et Mathieu d'Aquasparta" (1974); Dowd, "*De productione rerum*" (1974); Grabmann, *Erkenntnislehre* (1906); Hayes, *General Doctrine of Creation* (1964); Marrone, "Augustinian Epistemology" (1983); *Matteo d'Acquasparta* (1993); Mazzarella, *La dottrina* (1969); Payne, "Cognitive Intuition of Singulars" (1981); Prezioso, "L'attività del soggetto pensente" (1950); Putallaz, *La connaissance de soi* (1991); BCPMA (Houser); DMA (de Libera); FA; Glorieux; REP (Brown); Weijers.

MATTHEW OF BOLOGNA *fl.* 1270s. Grammarian. Master of arts, perhaps at Bologna. Author of *Quaestiones super modos significandi* (ed. Rosier-Catach 1992), a modistic grammar.

MATTHEW OF GUBBIO *fl. ca.* 1333–47. Arts master at Bologna. Central figure among the Italian Averroists. Extant works include various commentaries on the logical curriculum (unedited), various disputed questions on physics and the soul (ed. Kuksewicz, in *Averroïsme bolonais* 1965), and perhaps a *De anima* commentary (ed. Ghisalberti 1981).
 Secondary source. Lohr.

MATTHEW OF ORLEANS *fl.* 1220s. Logician. Known only as the author of the *Sophistaria* or *Summa communium distinctionum circa sophismata accidentium* (ed. Spruyt 2001).
 Secondary source. Weijers.

AL-MĀTURĪDĪ (Abū Manṣūr) b. Maturid (Samarkand), before 873; d. Maturid, *ca.* 944. Theologian and jurist, founder of the Maturidiyya school of Sunnī *kalām* that is the main rival to the Ashʿariyya. Seems to have remained in Maturid his entire life, leading an ascetic, scholarly life. Principal work is the *Kitāb al-tawḥīd* (*Book of Unity*) (ed. Kholeif 1970). A long Quran commentary (ed. al-Khaymī 2004) is probably the work of his students.
 Secondary sources. Ceric, *Roots of Synthetic Theology* (1995); Rudolph, *Al-Māturīdī* (1996); BEIP (İskenderoğlu); EI (Madelung).

AL-MĀWARDĪ (Abū al-Ḥasan ʿAlī ibn Muḥammad) b. Basra, 974; d. Baghdad, 1058. Renowned jurist. Studied in Basra and then in Baghdad. Eventually became chief judge in Baghdad and was active in diplomatic affairs. Principal political work is *Al-Aḥkām al-sulṭāniyya* (*The Laws of Islamic Governance*) (ed. al-Sirjānī 1978; tr. Yate 1996). Also extant, among many other works, is an important moral treatise, the *Kitāb adab al-dunyā wa-al-dīn* (*Right Conduct in Matters Worldly and Religious*) (ed. Abū Bakr 1988).
 Secondary sources. Khan, *Theory of the State* (1983); Mikhail, *Politics and Revelation* (1995); BEIP (İskenderoğlu); EI (Brockelmann).

MECHTILD OF HACKEBORN b. Helfta (Saxony), 1241; d. Helfta, 1299. Cistercian (or possibly Benedictine) nun and mystic. Born into an aristocratic family, she entered the monastery of Helfta at age seven, where her sister Gertrude would become famous as abbess. Eventually put in charge of the monastery school, she counted Gertrude the Great among her students. In her last years she began to speak about the visions she

had had from an early age. The *Liber specialis gratiae* [1292–] (ed. 1877) is the record of these accounts, written down by two nuns, one of whom was likely Gertrude the Great. Many vernacular translations, including Middle English (ed. Halligan 1979) are extant.

Secondary sources: Finnegan, *Women of Helfta* (1991); Bynum, *Jesus as Mother* (1982).

MECHTILD OF MAGDEBURG b. Saxony, 1209; d. Helfta, 1282/4. Mystic, ecclesiastical critic, poet. Took up the life of a beguine in Magdeburg (Saxony) at around the age of twenty-three, under Dominican direction. Her life of prayer and asceticism was combined with an outspoken criticism of Church abuses, which led to her ongoing persecution. Eventually she sought refuge in the Cistercian (or possibly Benedictine) convent at Helfta in 1270, where she joined other renowned figures such as Gertrude the Great and Mechtild of Hackeborn. The work for which she is famous is *The Flowing Light of the Godhead*, which stresses the soul's role as the bride of Christ; although originally written in Middle Low German, it survives only in Middle High German (ed. Vollmann-Profe 2003; tr. Tobin 1998) and Latin translation (minus the seventh book).

Secondary sources. Finnegan, *Women of Helfta* (1991); Hollywood, *Soul as Virgin Wife* (1995); McGinn, *Meister Eckart* (1994); Newman, "La Mystique Courtoise" (1995); Bynum, *Jesus as Mother* (1982).

MEISTER ECKHART *see* Eckhart.

MICHAEL OF EPHESUS b. *ca.* 1050; d. 1129. Philosopher and Aristotelian commentator, an important figure in the Byzantine revival of Neoplatonic Aristotelianism. Little is known of his life, and even his dates are uncertain. Extant works are commentaries (many published in *Commentaria in Aristotelem Graeca* (CAG); many extant in Latin translations) on the biological works (CAG XIV.3, XXII.2; *De motu* and *De incessu* tr. Preuss 1981), the *Ethics* (CAG XX, XXII.3; Bks. V, IX–X tr. [Latin] Robert Grosseteste [ed. Mercken 1991, Trizio forthcoming]; Bk. IX tr. Konstan 2001), *Politics* (ed. Susemihl and Immisch, in Aristotle, *Politica* 1929), *Parva naturalia* (CAG XXII.1), *Sophistical Refutations* (CAG II.3), and *Metaphysics*.

Secondary sources. Browning, "Funeral Oration" (1962/1990); Ebbesen, *Commentators and Commentaries* (1981); ODB (Kazhdan and Tkacz).

MICHAEL OF MARBAIS b. Brabant; *fl. ca.* 1300. Master of arts at Paris. Proponent of modistic grammar. Author of a *Summa de modis significandi* (ed. Kelly 1995) and *Quaestiones super Priscianum minorem* (unedited).

Secondary sources. Bursill-Hall, *Speculative Grammars* (1971); Covington, *Syntactic Theory* (1984); Kelly, *Mirror of Grammar* (2002); Weijers.

MICHAEL OF MASSA b. Siena; d. prob. Paris, 1337. Theologian. Little is known about his life or work. An Augustinian Hermit, he probably composed his *Sentences* commentary in the late 1320s (Bks. I–II only, unedited). Seemingly an important influence on his confrère Gregory of Rimini.

Secondary sources. Schabel, "Questions on Future Contingents" (1998) (edits Bk. I dd. 35–8); Courtenay, "Redating" (1995), "Categories" (2003); Hödl, "Schöpfungsbegriff" (1975); Trapp, "Augustinian Theology" (1956), "Notes on Some Manuscripts" (1965); BCPMA (Schabel); Weijers.

MICHAEL PSELLOS b. Constantinople, 1018; d. after 1081 (?). Byzantine scholar whose work ranged over history, rhetoric, law, and theology. His philosophy advocated the revival of ancient Hellenism, especially Platonism. A career administrator, he served as well as a kind of court philosopher, the *hypatos ton philosophon* in Constantinople. His best-known work is his *Chronographia* (ed. Renauld 1926–8; tr. Sewter 1966). His more philosophical works include a collection of "quodlibetal" questions, the *De omnifaria doctrina* (ed. Westerink 1948); various *Scripta minora* (ed. Kurtz and Drexl 1936–41), and collections of various brief theological (ed. Gautier 1989) and philosophical texts (ed. Duffy and O'Meara 1989–92). Also extant are various commentaries on Aristotle, including the *De interpretatione* (ed. Manutius 1503; tr. [Latin] 1541).

Secondary sources. Barber and Jenkins (ed.), *Reading Michael Psellos* (2006); Benakis, "Studien zu den Aristoteles-Kommentaren" (1961–2), "Kritik an Aristoteles" (1963); Duffy, "Hellenistic Philosophy" (2002); Ierodiakonou, "Psellos' Paraphrasis" (2002); Kaldellis, *Argument* (1999); Tatakis, *Byzantine Philosophy* (2003); ODB (Kazhdan).

MICHAEL SCOT b. perhaps in Fife; d. *ca.* 1236. Important Arabic–Latin translator. In Toledo from 1210, at which point he was already translating Arabic scientific texts. Moved to Bologna in 1220, entering into the employment of Frederick II and enjoying close relationships with successive popes. Among his most important translations are al-Biṭrūjī's *De motibus coelorum* [1217] (ed. Carmody 1952), Aristotle's *De animalibus* [before 1220], Averroes's long commentary on the *De caelo*, and perhaps also the long commentaries on the *Physics*, *De anima*, and *Metaphysics*. (See Appendices B1 and B4.) Various original treatises are also extant, most notably the *Liber introductorius* (part. ed. 1508, etc.), an introduction to astrology with wider reflections on the nature of the universe.

Secondary sources. Brams, *Riscoperta di Aristotele* (2003); Dod, "Aristoteles Latinus" (1982); Thorndike, *Michael Scot* (1965); ODNB (Morpurgo); Weijers.

MISKAWAYH b. Rayy (Persia), *ca.* 932; d. 1030. Historian and humanistic philosopher. Combined his scholarly work with an active political career in Baghdad, Isfahan, and Rayy. Most studied philosophical work is an ethical treatise, the *Tahdhīb al-akhlāq* (*The Refinement of Character*) (ed. Zurayk 1966; tr. Zurayk 1968). Among his other works is an epistle on the intellect and the intelligible (ed. Arkoun 1964; tr. Marcotte 1996). His principal historical work is the *Tajārib al-umam* (*Experiences of Nations*) (ed. and tr. Amedroz and Margoliouth 1920–1).

Secondary sources. Adamson, "Miskawayh's Psychology" (2007); Arkoun, *Humanisme arabe* (1982); Kraemer, *Humanism* (1986); EI (Arkoun); HIP (Leaman); REP (Leaman).

MONACHUS NIGER *fl.* 1330s–40s. Benedictine theologian whose proper name is uncertain. Although very little is known about this figure, his lectures on the *Sentences* [at

Oxford or perhaps Cambridge, 1335–41] (unedited) are often cited by contemporaries. Perhaps to be identified with the Benedictine Johannes Normanus.

Secondary sources. Courtenay, *Adam Wodeham* (1978); Edwards, "Themes and Personalities" (2002).

MOSES IBN EZRA b. Granada, *ca.* 1055; d. after 1135. Hebrew poet and scholar. Studied in Lucena; forced by the Almoravid invasion to flee Andalusia in 1090. The remainder of his life was spent in exile, in Christian Spain, longing for his home. Although most famous for his poetry, two interesting Arabic works of philosophy and literary criticism are extant: the *Kitāb al-muḥāḍara wa-al-mudākara* (*Book of Conversation and Discussion*) (ed. and [Sp] tr. Abumalhan Mas 1985–6), and the *Maqālat al-ḥadīqa fī maʿnā al-majāz wa-al-ḥaqīqa* (*The Treatise of Garden on Metaphorical and Literal Meaning*) (ed. and [Hebrew] tr. Fenton 1989).

Secondary sources. Fenton, *Philosophie et exégèse* (1997); REP (Fenton).

MOSES IBN TIBBON b. Marseille; *fl.* 1244–83. Physician, scholar, and prolific translator. Lived in Montpellier. Son of Samuel ibn Tibbon and father of Judah ben Moses ibn Tibbon, who would play a prominent role in the Maimonidean controversy at Montpellier in 1304. Greatest influence is his many translations into Hebrew of Arabic philosophical and scientific works, particularly those of Averroes but also including works by Euclid, al-Biṭrūjī, and Maimonides. His own work includes a commentary on the Song of Songs (ed. 1874).

Secondary sources. Fraisse, *Kommentar zum Hohenlied* (2004); Robinson, "Ibn Tibbon Family" (2005); SEP (Robinson); Sirat.

MOSES MAIMONIDES (ben Maimon, Rambam) b. Cordoba, 1138; d. Cairo, 1204. Pre-eminent Jewish philospher and religious authority. Born into a prominent rabbinic family. Forced to leave Cordoba after the Almohad conquest of 1148, eventually settling in Fez in 1160 and then Cairo, *ca.* 1165, where he remained for the rest of his life, becoming a leading figure in the local Jewish community and serving as court physician from 1185. His work, which joins Neoplatonic and Aristotelian ideas, grew out of Judeo-Islamic thought, and deeply influenced philosophers in the Latin West, from Aquinas to Spinoza and beyond. Although well known during his life for his many medical writings, his enduring philosophical fame rests on the *Dalālat al-ḥāʾirīn* (*Moreh Nevukhim; Guide of the Perplexed*) [1185–90], written in Arabic with Hebrew characters (ed. and [Fr] tr. Munk 1856/1964; tr. Pines 1963). Also of enduring significance are his rabbinic treatises, principally the *Kitāb al-siraj* (*Sefer ha-Maor; Commentary on the Mishnah Avot*) [1168] (ed. [Hebrew] Rabinowitz 1948); the *Kitāb al-faraʿid* (*Sefer ha-Mitzvot; Book of the Commandments*) [1170] (ed. Bloch 1888; tr. Chavel 1967); and, above all, the *Mishneh Torah* [*ca.* 1180] (ed. Frankel 2000, in 12 vols.; part. tr. *Code of Maimonides* 1949–72), his monumental and still authoritative study of rabbinic law. Of special philosophical interest are the ethical treatise from the introduction to the *Kitāb al-siraj* known as the *Eight Chapters* (ed. Wolff and Niewöhner 1903/2003; tr. Gorfinkle 1912/1966), and the first book of the *Mishneh Torah*, known as *The Book of Knowledge* (tr. Hyamson 1974). Maimonides's many other works include a youthful treatise on logic (ed. and

tr. Efros 1938/1978). Various treatises and letters are translated in anthologies (Halkin and Hartman 1985; Lerner, *Empire of Light* 2000; Twersky 1972; Weis and Butterworth 1975).

Secondary sources. Seeskin, *Cambridge Companion to Maimonides* (2005); Buijs (ed.), *Maimonides* (1988); Davidson, *Moses Maimonides* (2005); Frank, "Anger as a Vice" (1990), "Maimonides and Aristotelianism" (2003); Harris, *After 800 Years* (2008); Kraemer (ed.), *Perspectives* (1991); Langermann, "Maimonides and the Sciences" (2003); Leaman, *Moses Maimonides* (1997); Pessin, "Influence of Islamic Thought" (2005); Pines and Yovel (eds.), *Maimonides and Philosophy* (1985); Rubio, *Aquinas and Maimonides* (2007); Seeskin, *Searching for a Distant God* (2000), *The Origin of the World* (2005); BCPMA (Ivry); HIP (Broadie); HJP (Kreisel); REP (Goodman); SEP (Seeskin).

MOSES NAHMANIDES (Ramban, Bonastrug de Porta) b. Gerona (Catalonia), *ca.* 1194; d. Acre (Palestine) 1270. Philosopher, Talmudist, founding figure of Kabbalah. A cautious critic of philosophy, who played a leading role in the anti-rationalist attack on Maimonides's work, seeking to keep it from a general audience [1232–3]. A debate in Barcelona with the apostate Pablo Christiani in 1263 led to charges of abusing Christianity, and he was forced to flee to Palestine. His own ideas are presented largely in scriptural commentaries, most notably his commentary on the Torah (ed. Chavel 1959–63; tr. Chavel 1976). An anthology of other speculative works is also available (ed. Chavel 1963; tr. Chavel 1978).

Secondary sources. Caputo, *Nahmanides in Medieval Catalonia* (2008); Chazen, *Barcelona and Beyond* (1992); Novak, *Theology* (1992); Twersky (ed.), *Rabbi Moses Nahmanides* (1983); REP (Stern).

MOSES OF NARBONNE (Narboni) b. Perpignan, *ca.* 1300; d. *ca.* 1362. Jewish Aristotelian. Spent most of his life in Spain, working as a physician. Author of many commentaries on religious and philosophical texts, including a commentary on Averroes's theory of the active intellect (ed. and tr. Bland 1981). Best known for his commentary on Maimonides's *Guide of the Perplexed* [1355–62] (part. ed. and [Fr] tr. Hayoun 1986). Also extant is a response to Abner of Burgos's deterministic views, *Maʾamar ha-Beḥira* (*Treatise on Choice*) [1361] (ed. Hayoun 1982; tr. Manekin, *Writings* 2007).

Secondary sources. HIP (Leaman); REP (Leaman); Sirat.

AL-NASAFĪ (Abū al-Muʿīn) b. Nasaf (Bukhara), *ca.* 1046; d. Nasaf, 1114/15. Leading Maturidite theologian. Principal works are the *Baḥr al-kalām* (*Ocean of Theology*) (ed. Farfūr 1997) and the *Tabṣirat al-adilla* (*Instructing the Evidences*) (ed. Salāma 1990).

Secondary sources. Madelung, "Abu'l Muʿīn al-Nasafī" (2000); BEIP (İskenderoğlu); EI (Wensinck).

AL-NASAFĪ (Muḥammad) b. Nasaf (Bukhara); d. 943. Ismāʿīlī missionary and Neoplatonic philosopher. Head of the Ismāʿīlī *daʾwa* in Nishapur; enjoyed some success in converting local rulers before he and many of his followers were massacred after a political reversal. Principal work, extant only in fragments, is *Al-Maḥṣūl* (*The Result*),

a founding work in Ismāʿīlī philosophy that would be much criticized by subsequent generations.

Secondary sources. Daftary, *Ismāʿīlīs* (1990); Stern, *Studies* (1983); Walker, *Early Philosophical Shiism* (1993), "The Ismāʿīlīs" (2005); EI (Poonawala).

AL-NAẒẒĀM (Abū Isḥāq) d. 835/45. Muʿtazilī theologian and poet. Studied in Basra, in the circle of his uncle Abū al-Hudhayl; came to the court at Baghdad sometime after 819. Only fragments of his work are extant, but he is known to have rejected the atomism characteristic of the *mutakallimūn*.

Secondary sources. van Ess, *Theology and Science* (1978); EI (van Ess).

NICHOLAS OF AMIENS *fl.* later twelfth century. French theologian. Author of the *Ars fidei catholicae* (ed. Dreyer 1993), which sets out Christian doctrine in an axiomatic form inspired by Euclid. Perhaps also the author of the brief *Potentia est vis* (ed. Dreyer 1993).

Secondary source. BBK (Wesseling).

NICHOLAS OF AMSTERDAM (Nicholaus Theoderici) b. *ca.* 1388; d. Greifswald, *ca.* 1437. German arts master. Studied the arts at Cologne from 1407 and at Erfurt from 1412, becoming master at Erfurt in 1414. Taught for most of his career at Rostock [1422–37]. Commentaries are extant on the *Ethics*, *Metaphysics*, *Physics*, *De anima*, *De caelo*, *De generatione*, *Meteorology*, and *Parva naturalia* (all unedited).

Secondary sources. Pinborg, "Aristoteles-Quaestionen" (1964); Pluta, "Materialism" (2007); Pluta (ed.), *Nicholas of Amsterdam* (2008); Włodek, "Commentaire sur le *De anima*" (1963); Lohr.

NICHOLAS OF AUTRECOURT (Ultricuria) b. Autrécourt (Lorraine), *ca.* 1298; d. Metz, 1369. Radical critic of Aristotelianism, condemned in Avignon and Paris. Studied the arts in Paris, obtaining his master's degree *ca.* 1318/20. Studied civil law outside of Paris, then returned *ca.* 1330 to teach on the arts faculty and study theology at the Sorbonne. He completed the degree requirements in theology, including lecturing on the *Sentences* [*ca.* 1335–6], but apparently did not incept as master. Summoned to Avignon in 1340 to respond to charges of false teaching. A trial focusing on a list of sixty-six erroneous propositions lasted until 1346, when he was convicted of teaching various erroneous and heretical statements. His sentence was to recant publicly and to burn his works, an exercise he performed first in Avignon and then in Paris, in November 1347. Deprived of his license to teach, he spent the remainder of his life in Metz, where he had been appointed canon in 1339 and later dean of the cathedral chapter. Just a few of Nicholas's works have survived. Most important is an extended treatise on atomistic natural philosophy commonly known by its opening words, *Exigit ordo* (but more properly called the *Tractatus utilis ad videndum an sermones peripateticorum fuerint demonstrativi*) [1330, later revised] (ed. O'Donnell 1939; tr. Kennedy *et al.* 1971). The most notorious of his works, in which he expresses doubts over whether we have any certainty in philosophy, are the letters to Bernard of Arezzo (two of nine have survived) [1335–6] and to a Master Giles (one brief and fragmentary letter) [*ca.* 1337] (ed. and

tr. de Rijk 1994). The only other surviving work is a brief theological dispute on the intention and remission of forms [1336–9] (ed. with the *Exigit ordo*).

The text of the *Exigit ordo* presents substantial problems, since it is the product of revisions and additions over several years and survives in only a single manuscript. (The only currently available edition and translation misreads the title of the work, wrongly calling it the "Universal Treatise," and so badly scrambles the order in which the text itself is to be read as to make the all-important prologue and first chapter virtually unintelligible. For the essential corrections, see Kaluza, *Ami de la vérité* 1995.)

Secondary sources. Kaluza, *Ami de la vérité* (1995) [biography]; Caroti and Grellard (eds.), *Nicolas d'Autrécourt* (2006); Dutton, "Atomism, Nominalism" (1996); Grellard, *Croire et savoir* (2005); Perler, *Zweifel und Gewissheit* (2006); Scott, "Autrecourt, Buridan, and Ockhamism" (1971); Thijssen, *Censure and Heresy* (1998), "Quest for Certain Knowledge" (2000); Weinberg, *Nicolaus of Autrecourt* (1948/1969); Zupko, "On Certitude" (2001); DMA (Grellard); REP (Perler); SEP (Thijssen); Weijers.

NICHOLAS BONET (Bonetus) b. Touraine, *ca.* 1280; d. 1343. Franciscan philosopher and theologian. Student of theology in Paris, apparently studying with Scotus, and later master of theology at Paris. Appointed bishop of Malta in 1342. Various studies of Aristotle have survived: a *Categories*, *Metaphysics*, and *Physics* (*Philosophia naturalis*), as well as a *Theologia naturalis* (all ed. 1505). Also credited with a Scotistic treatise, *Formalitates* (ed. 1475), although his authorship is uncertain. Best known today for his indivisibilism regarding the continuum.

Secondary sources. Martin de Barcelona, "Nicolás Bonet" (1925); Alliney, "Tempus naturae" (2002); Murdoch, "Mathesis" (1969); Zoubov, "Catton, Odon, Bonet" (1959); CHLMP; FA; Lohr; Weijers.

NICHOLAS BYARD d. 1261. Famous preacher and moral theologian, variously described as a Franciscan or a Dominican. Did not pursue advanced study in theology, and his sermons (extant in many mss., but unpublished) have a popular, non-technical character. Other extant works are his *Distinctiones* (unedited) and his *Summa de abstinentia* or *Dictionarius pauperum* (ed. 1498), which are handbooks for preachers.

Secondary sources. BBK (Hödl); DS (Schmitt); DTC (Teetaert); FA; Kaeppeli; ODNB (Summerson).

NICHOLAS OF CUSA (Cusanus, Cues, Krebs) b. Kues (Rhineland), 1401; d. Todi (Umbria), 1464. Innovative philosopher and theologian, often regarded as a key precursor to modern thought. Studied at Heidelberg in 1416–17, then at Padua, receiving his doctorate in canon law in 1423. Lectured and took up theological studies at the University of Cologne. Entered into the service of the archbishop of Trier by 1427, whom he represented at the Council of Basel beginning in 1432, playing an important role there. Ordained priest in the late 1430s, and elected cardinal in 1448. Bishop of Brixen (Tirolia) from 1450. Although largely occupied with diplomatic and ecclesiastical duties, Cusa authored treatises on a wide range of topics, from canon law to philosophy, mysticism, mathematics, and Islam. His earliest works are associated with the Council of Basel, most notably the *De concordantia catholica* [1433] (tr. Sigmund 1991), a powerful

argument for the authority of Church councils, and *De auctoritate praesidendi in concilio generali* [1434] (tr. Bond *et al.* 1990). His most famous work is *De docta ignorantia* [1440] (tr. Hopkins 1985), a meditation on our inability to grasp infinite being, which was later followed by an *Apologia doctae ignorantiae* [1449] (tr. Hopkins, *Debate* 1988). Other important works include the *Idiota de sapientia* and *Idiota de mente* [both 1450] (both tr. Hopkins 1996), and the *De visione Dei* [1453] (tr. Hopkins 1988). Other philosophically interesting treatises are also extant (see the translations of Hopkins 1994, 1997–2000), as are many sermons and mathematical writings. The modern edition of Cusa's *Opera omnia* is now virtually complete (Hoffmann *et al.* 1932–, in 22 vols.).

Secondary sources. Haubst *et al.* (eds.), *Mitteilungen* (1961–) [bibliography]; Meuthen, *Nikolaus von Kues* (1979) [biography]; Casarella, *Cusanus* (2006); Haubst, *Striefzüge* (1991); Hopkins, *Concise Introduction* (1986); Hudson, *Becoming God* (2007); Flasch, *Nikolaus von Kues* (1998); Jacobi, *Die Methode* (1969); Leinkauf, *Einführung* (2006); Meuthen and Hallauer (eds.), *Acta Cusana* (1976–); Sigmund, *Medieval Political Thought* (1963); Vansteenberghe, *Le Cardinal* (1920/1963); BCPMA (Dupré and Hudson); DMA (Counet); REP (Hopkins); Weijers.

NICHOLAS DRUKKEN OF DACIA d. *ca.* 1357. Paris logician. Studied at Paris, becoming arts master in 1341 and rector in 1344. Exant works are a *Tractatus de suppositionibus* and questions on the *Prior Analytics* (both ed. in *Opera* 1997).

Secondary sources. Lagerlund, *Modal Syllogistics* (2000); Weijers.

NICHOLAS KABASILAS (Chamaetos) b. Thessaloniki, 1319/23; d. Constantinople, after 1397. Byzantine theologian and philosopher. Born into a noble family; studied in Thessaloniki and then Constantinople. His work draws not only on Patristic authors but also on Aristotle as well as Aquinas and other Latin sources. Among his theological works (PG 150), most notable are his study of the sacraments, *The Life in Christ* (tr. deCatanzaro 1974; ed. and [Fr] tr. Congourdeau 1989–90); and his *Commentary on the Divine Liturgy* (tr. Hussey and McNulty 1960/2002; ed. Périchon and [Fr] tr. Salaville 1967). More philosophical is the unfinished anti-skeptical *Contra Pyrrhonem* [1355/9] (ed. Demetracopoulos 1999) and the *De rationis valore* [1355/9] (ed. Demetracopoulos 1998), in which he argues that beatitude requires cultivating reason. Far from being a follower of Gregory Palamas, as often reported, he in fact criticizes Palamism in both of these works. His correspondence has also been edited (ed. Enepekides 1953). Selections of his work have been translated into Italian (tr. Spiteris 1996).

Secondary sources. Angelopoulos, *Nikolaos Kabasilas* (1970); Conticello and Conticello, *La théologie byzantine* (2002); Lot-Borodine, *Maître de la spiritualité* (1958); Tsirpanlis, "Career and Writing" (1979), *Liturgical and Mystical Theology* (1979); Völker, *Sakramentmystik* (1977); BBK (Tinnefeld); ODB (Talbot).

NICHOLAS OF LYRA b. Lyre (Normandy), *ca.* 1270; d. Paris, 1349. Prominent biblical commentator. Joined the Franciscan order *ca.* 1300 and was sent to Paris to study theology, becoming regent master in 1308. Subsequently much involved in Franciscan administrative affairs, serving as provincial minister of Francia in 1319–24 and later Burgundy from 1324/5, before retiring to Paris. The principal project of his later

years, and the work for which he is famous, is his massive *Postilla litteralis super totam Bibliam* [1322–31] and the briefer *Postilla moralis seu mystica* [1339] (both ed. Lyon 1545, etc.), intended as a handbook for preachers. The first – which makes use of Nicholas's impressive knowledge of Hebrew – became a standard biblical commentary and was widely printed. Translations have been published of the commentaries on the Apocalypse (tr. Krey 1997) and the Song of Songs (tr. Kiecker 1998). Also extant are four *Quodlibeta* [*ca.* 1309] (only excerpts ed.), along with various other disputed questions (unedited) and a treatise *De visione divinae essentiae* [1334] (ed. Woodward 2005), on the controversy over the beatific vision of the saints in heaven.

Secondary sources. Brown, "Critique of Scotus' Univocity" (1991); Duba, "Continental Franciscan *Quodlibeta*" (2007); Krey and Smith (ed.), *Nicholas of Lyra* (2000); FA.

NICHOLAS OF NORMANDY *fl. ca.* 1270. Paris arts master whose only known work is a grammatical sophism *Albus musicus est* (ed. Ebbesen 1988).

Secondary source. Weijers.

NICHOLAS OF OCKHAM b. *ca.* 1245; d. 1320. Franciscan theologian. Studied at Paris *ca.* 1270–4; subsequently studied theology at Oxford, becoming regent master there in 1286–7. His *Sentences* commentary, dating from his years at Oxford [prob. 1280–2], is extant in all four books (unedited). Also extant are various disputed questions (ed. Saco Alarçón 1981, 1993).

Secondary source. Saco Alarçón, "Vida y obras" (1978).

NICHOLAS OF PARIS *fl. ca.* 1240. Arts master at Paris, known for his logical writings. Probably the author of the *Summe de dialectica* (*Summe Metenses*) (part. ed. de Rijk, *Logica modernorum* II.1 1967), as well as important early examples of treatises on *obligationes* (ed. Braakhuis 1998) and *syncategoremata* (ed. Braakhuis 1979; part. tr. CTMPT I), and also various commentaries on the *ars vetus* and on Priscian minor (unedited)

Secondary sources. Grabmann, "Logischen Schriften" (1926); CHLMP; Lohr; Weijers.

NICHOLAS OF STRASBOURG *fl. ca.* 1323–9. Dominican theologian and mystic. Educated in Paris; lector at the Dominican convent in Cologne. Best known for defending his confrère Eckhart from censure in 1326, for which he himself was briefly excommunicated before the sentence was voided by the pope. Author of a Thomistic *Summa philosophiae* (ed. Suarez-Nani *et al.* 1990–), as well as various theological writings, including a set of treatises and sermons in German (ed. Pfeiffer, in *Deutsche Mystiker* 1845–57/1962).

Secondary sources. Hillenbrand, *Nikolaus von Strassburg* (1968); Imbach and Lindblad, "Compilatio" (1985); Trusen, *Der Prozess* (1988); Wagner, *Materie im Mittelalter* (1986) [ed. and study of *Summa* II.1]; Kaeppeli.

NICHOLAS TRIVET (Trevet) b. Somerset, 1257/65; d. *ca.* 1335. Dominican theologian, historian, and classical scholar. Joined the London convent as a young man; subsequently

sent to Oxford to study, serving as master of theology, prob. in 1303–7. Lived in Paris *ca.* 1307–14, but traveled widely throughout France and Italy. Recalled to Oxford in 1314, where he served as master for another year. The most philosophical of his extant works are various disputed questions and six *Quodlibeta* [five from the first regency; the last from the second] (part. ed. Hauke, in *Die Lehre* 1967, and in Dales and Argerami, *Medieval Latin Texts* 1991), but he is more famous for his historical chronicles and his commentaries on Boethius, Seneca, Livy, Virgil, and Augustine (available in a variety of editions).

Secondary sources. Ehrle, *Nikolaus Trivet* (1923); Friedman, "Dominican Quodlibetal Literature" (2007); Kaeppeli; ODNB (Clark); Weijers.

NICOLE ORESME b. near Caen (Normandy), *ca.* 1320; d. 1382. Leading natural philosopher of the later Middle Ages. Studied the arts at the University of Paris in the 1330s, becoming master of arts by 1341. In residence at the College of Navarre in Paris by 1348, studying theology; became doctor of theology in 1356, and also grand master of the college. Closely connected to the royal family and tutor to Charles V, upon whose ascension in 1364 Oresme became dean of the cathedral at Rouen. Appointed bishop of Lisieux in 1377.

His work, which ranges widely over philosophy and theology, is celebrated for its quantitative orientation. The mathematical–scientific treatises are most studied, in particular the *Tractatus de configurationibus qualitatum et motuum* [*ca.* 1350] (ed. and tr. Clagett 1968), with its proof of the mean-speed theorem and its attempt at a quantitative theory of qualities; the *De proportionibus proportionum* [*ca.* 1356] (ed. and tr. Grant 1966); and *De causis mirabilium* [*ca.* 1370] (ed. and tr. Hansen 1985), which displays Oresme's orientation toward naturalism. Of equal if not greater philosophical interest are the Aristotle commentaries: the *De anima* (ed. Patar 1995), the *De generatione et corruptione* (ed. Caroti 1996), the *De caelo* (ed. and tr. Kren 1965), the *Meteorology* (part. ed. and tr. McCluskey 1974), and especially the recently discovered *Physics* (ed. Caroti *et al.* in progress), all written in the late 1340s. Standing in between these commentaries and the later treatises are the questions on Euclid's *Elements* [*ca.* 1350] (ed. Busard 1961). In the 1370s, at the request of the king, he produced French translations with accompanying commentaries of Aristotle's *Politics* (ed. Menut 1970), *Ethics* (ed. Menut 1940), *Economics* (ed. and tr. Menut 1957), and *De caelo* (ed. and tr. Menut and Denomy 1968). Also noteworthy are the *De visione stellarum,* which is a treatise on optics and atmospheric refraction (ed. Burton 2007), and a treatise on money (ed. Wolowski 1864/1976).

Secondary sources. Menut, "Provisional Bibliography" (1966); Babbitt, *Oresme's Livre de Politiques* (1985); Caroti, "La position" (1994), "Les modi rerum" (2000); Celeyrette and Mazet, "La hiérarchie" (1998); Courtenay, "Early Career" (2000); Grant, *Studies* (1981), "Natural Knowledge" (1993); Kaye, *Economy and Nature* (1998); Kirschner, *Kommentar zur Physik* (1997) [prelim. part. ed.]; Molland, "Scientific Progress" (1974); Piron, *Violence, langage* (1997); Quillet (ed.), *Autour de Nicole Oresme* (1990); Souffrin and Segonds (eds.), *Nicolas Oresme* (1988); Taschow, *Frühling der Moderne* (2003); BCPMA (Grant); DMA (Celeyrette); REP (Molland); Weijers.

NIKEPHOROS BLEMMYDES b. 1197; d. Ephesus, 1272. Byzantine scholar and influential teacher. Studied in Bithynia (northern Turkey), focusing on medicine – his father's

profession – before taking up a career in the church in 1224. Joined a monastery *ca.* 1235, quickly becoming its head. Founded his own monastery near Ephesus in 1241. Extant works include extensive epitomes of logic and physics (PG 142), as well as an autobiography [1264–5] (ed. Munitiz 1984; tr. Munitiz 1988); a mirror for princes, the *Imperial Statue* (ed. and tr. Hunger and Ševčenko 1986); a pair of discourses on the soul and body (ed. 1784); and a treatise on predestination (ed. and [German] tr. Lackner 1985). A collection of theological writings has also recently been published (ed. and [Fr] tr. Stavrou 2007).

Secondary sources. Bydén, *Theodore Metochites* (2003); Codellas, "Philosophical Works" (1949); Tatakis, *Byzantine Philosophy* (2003); ODB (Macrides).

NIKEPHOROS CHOUMNOS b. 1250/5; d. Constantinople, 1327. Byzantine scholar and statesman. Studied rhetoric and philosophy in Constantinople, becoming an important political figure. His philosophical works (ed. Boissonade, in *Anecdota graeca* 1833/1962; *Anecdota nova* 1844/1962; PG 140) advocate the classical tradition, against the modernism of his rival Theodore Metochites. A nominalist, he rejected both Plato's Ideas and Aristotle's forms.

Secondary sources. Bydén, *Theodore Metochites* (2003); Ševčenko, *Études sur la polémique* (1962); Tatakis, *Byzantine Philosophy* (2003); Verpeaux, *Nicéphore Choumnos* (1959); ODB (Talbot).

NIKEPHOROS GREGORAS b. Herakleia Pontike, 1293; d. Constantinople, 1361. Scholar and teacher whose work ranges over history, philosophy, theology, and astronomy. Orphaned as a child. Studied philosophy in Constantinople with Theodore Metochites. Founded a school at the monastery of Chora in Constantinople, where he was an influential teacher. Involvement in the dispute over hesychasm led to his being condemned and anathematized in 1351; placed under house arrest, he lived the remainder of his life in disgrace. In his dialogue *Phlorentios* or *On Wisdom* [*ca.* 1333] (ed. and [Ital] tr. Leone 1975), Aristotle's views are rejected in favor of Platonism. His best-known work is a history, in thirty-seven books, of thirteenth- and fourteenth-century Byzantium (ed. Schopen and Bekker 1829–55). Many letters are also extant (ed. Leone 1982–3).

Secondary sources. Bydén, *Theodore Metochites* (2003); Ierodiakonou, "Anti-Logical Movement" (2002); Tatakis, *Byzantine Philosophy* (2003); ODB (Talbot).

ODO OF OURSCAMP, *see* Odo of Soissons.

ODO RIGALDUS (Eudes of Rouen, Odon Rigaud, Rigaldi, Rigauld) b. Brie-Comte-Robert (Île-de-France), *ca.* 1205; d. Gaillon (Normandy), 1275. Early Franciscan theologian. Entered the Franciscan order *ca.* 1236 and studied in Paris under Alexander of Hales. Lectured on the *Sentences*, probably in 1243–5, then served as regent master in 1245–7 at Paris. Elected archbishop of Rouen in 1248 and was subsequently much involved in ecclesiastical and diplomatic matters, even accompanying Louis IX to Tunis on his second crusade in 1270. Extant work includes his *Sentences* commentary (part. ed. Sileo 1984); various sermons (part. ed. Duval-Arnould 1976–7; Bougerol 1995); and sixteen disputed questions, including *De scientia theologiae* (ed. Sileo 1984), *De libero*

arbitrio (ed. Lottin 1931), *De gratia* (ed. Pergamo 1935), and *De aeternitate mundi* (ed. Dales and Argerami, in *Medieval Latin Texts* 1991). A remarkable look at Odo's daily activities from 1248 to 1269 is preserved in his journal (ed. Bonnin 1852; tr. Brown and O'Sullivan 1964).

Secondary sources. Andrieu-Guitrancourt, *L'archevêque* (1938); Bouvy, "Les questions sur la grâce" (1960), "Les necessité de la grâce" (1961); Davis, *The Holy Bureaucrat* (2006); Henquinet, "Les manuscrits" (1939); Lottin, "Un commentaire" (1935); Pobst, "Vision" (2002); Sileo, "Dalla lectio alla disputatio" (1997); Wood, "Distinct Ideas" (1993); Glorieux.

ODO OF SOISSONS (of Ourscamp) b. Soissons; d. *ca.* 1172. Paris theologian. A student of Peter Lombard at the cathedral school in Paris and subsequently a teacher, becoming chancellor there *ca.* 1164–8. Joined the Cistercian cloister in Ourscamp (northeast of Paris) in 1168; elected abbot soon after. Bishop of Tusculum from 1170. Extant works include various letters and sermons and a large number of theological questions (part. ed. Pitra 1888), although some of the questions edited under his name stem from his followers, and others seem entirely unconnected to Odo.

Secondary sources. Hödl, "Sentenzen" (2002); Leclercq, "Lettres" (1955); Lottin, "Le premier" (1938); DS (Longère).

ODO OF TOURNAI (of Cambrai) b. Orleans, *ca.* 1060; d. Anchin, 1113. Educator and theologian. An influential teacher in Tournai (Belgium), he became a Benedictine monk at St. Martin's Abbey there in 1095, and eventually abbot. Elected bishop of Cambrai in 1105, but was forced to withdraw from the position five years later for political reasons. His most important extant works (PL 160) are *De peccato originali* and *Dispositio contra Judaeum Leonem* (both tr. Resnick 1994), as well as an *Expositio in canonem missae*.

Secondary source. Resnick, "Problem of Universals" (1997).

OLIVER BRITO *fl. ca.* 1250–60. Paris arts master. Author of an introductory textbook, the *Philosophia* (ed. Lafleur and Carrier, in *L'enseignement* 1997).

Secondary sources. Lafleur, *Quatre introductions* (1988); Weijers.

PAUL OF GELRIA (Paul Fabri) b. Saxony, *ca.* 1352; d. Cologne, 1404. German arts master and theologian. Studied the arts at Paris under Thomas of Cleves, incepting as master in 1376. Taught at Paris until 1382, at that point leaving for the University of Prague. Went on to study theology in Vienna, becoming doctor in 1396. Subsequently taught at Cologne until his death. Only known work is *De conceptibus* [1380s] (ed. Bos and Read 2001).

Secondary sources. Read, "Material Supposition" (1999); Weijers.

PAUL OF PERGULA b. *ca.* 1400; d. Venice, 1455. Logician. Student of Paul of Venice in Padua, becoming master of arts *ca.* 1420, and doctor of theology by 1430. Taught in Venice from 1420 until his death. Extant works include an introductory *Logica*; a *Tractatus de sensu composito et diviso* (both ed. Brown 1961); *Dubia super Consequentiis Strodi* (ed.

1477, etc.); *Sophismata asinina* (ed. Pironet 1998), as well as commentaries on the *ars vetus* and William Heytesbury (unedited).

Secondary sources. Boh, "Suppositions and Consequences" (1965); Braakhuis, "Commentary on the Sophismata" (1982); Brown, "*Tractatus de obligationibus*" (1966); Karger, "La supposition matérielle" (1982); Spade, *Mediaeval Liar* (1975); BCPMA (Lahey); CHLMP; Lohr; Weijers.

PAUL OF PERUGIA d. Paris, *ca.* 1346. Carmelite theologian. Lectured on the *Sentences* at Paris in 1344–5 (unedited except for excerpts in the secondary literature), dying before he could become master.

Secondary sources. Etzwiler, "Nature of Theological Knowledge" (1987); Schabel, "*Sentences* Commentary" (2005); Xiberta, *De scriptoribus scholasticis* (1931).

PAUL OF TARANTO (Tarento) b. Taranto (southern Italy); *fl. ca.* 1260/1300. Franciscan alchemist. Lectured at the *studium* in Assisi. Author of the influential alchemist treatise *Summa perfectionis* (ed. and tr. Newman 1991), traditionally ascribed to Jābir ibn Ḥayyān, as well as the briefer *Liber tam theoricae quam practicae veritatis in arte alkimica* (ed. and tr. Newman, in "Summa perfectionis" 1986).

Secondary sources. Haage, "Die Korpuskulartheorie" (1994); Newman, "New Light" (1985).

PAUL OF VENICE (Paolo Nicoletti Veneto) b. Udine, *ca.* 1369; d. Padua, 1429. Eminent logician and natural philosopher. Joined the Augustinian order in his youth; studied in Padua before being assigned to study theology at Oxford in 1390–3. Taught mainly at Padua, with stints in Siena in 1420–4 and Perugia in 1424–8. Also served both as an active administrator in his order and as a Venetian diplomat. His works, concentrated on logic and natural philosophy, are among the most influential of later scholasticism, surviving in hundreds of manuscripts and many editions. Particularly influential are his *Summa philosophiae naturalis* [1408] (ed. 1503/1974) and *Logica parva* [*ca.* 1393–5] (ed. Perreiah 2002; tr. Perreiah 1984). Other major logical works are the *Sophismata aurea* [*ca.* 1399] (ed. 1493) and the vast *Logica magna* [*ca.* 1396–9] (ed. 1499; various modern part. eds. and trs.), which largely reports on the work of others. Many commentaries on Aristotle circulated widely, including the *Posterior Analytics* [1406] (ed. 1477/1976), *Physics* [1409] (ed. 1499), *Metaphysics* [*ca.* 1420–4] (unedited), *De generatione et corruptione* (ed. 1498), *De anima* [*ca.* 1415–20] (ed. 1504), and *ars vetus* [1428] (ed. 1494). Various influences shaped Paul's work, including Parisian Averroism, English logic, and Wycliffite realism.

Secondary sources. Perreiah, *Bibliographical Guide* (1986); Amerini, "Nature of Essence" (2004); Bottin, "Logica e filosofia naturale" (1983); Conti, *Esistenza e verità* (1996), "Individuation" (1998), "Divine Ideas" (2003); Kuksewicz, "Teoria dell'anima" (1983); Maierù (ed.), *English Logic in Italy* (1982); Nardi, "Aristotelismo padovano" (1958); Perreiah, "Insolubilia" (1978); Ruello, "Théologien 'averroiste'?" (1978); BCPMA (Perreiah); REP (Ashworth); SEP (Conti); Weijers.

PETER ABAELARD (Abailard, Abelard) b. Le Pallet (Brittany), 1079; d. Chalon-sur-Saône (Burgundy), 1142. Famous and controversial philosopher and theologian; one of the

greatest logicians of the Middle Ages. Traveled in his youth to study with the leading scholars of the Latin world, including Roscelin and William of Champeaux. Soon attracted his own students; by 1113, he was master of the school of Notre Dame in Paris. His affair with Héloïse and subsequent castration led to his entering the Benedictine monastery of St. Denis *ca.* 1119, where he continued to teach, increasingly on theology. His first work in that area was condemned and burned by a synod at Soissons in 1121 for controversy surrounding its claims about the Trinity. Subsequently established his own monastery, the Paraclete (where Héloïse later became abbess), then left to become abbot of St. Gildas in Brittany, *ca.* 1126. After much conflict there, he returned to Paris, still writing and teaching at Mount St. Geneviève *ca.* 1132–8. Again his views came under suspicion, with Bernard of Clairvaux leading the attack, and in 1140 the Council of Sens condemned nineteen propositions. Abaelard sought to appeal directly to Rome, but Bernard prevailed, and Abaelard's sentence (to silence) was lifted only due to the intervention of Peter the Venerable, under whose protection he spent his remaining days.

Abaelard's principal works are logical, ethical, and theological; their dating is problematic because they were revised over time. The logical works, often rich with metaphysical ideas, are concerned almost entirely with the *ars vetus*, Aristotle's new logic having become available only later in Abaelard's life. The main works are the *Dialectica* [*ca.* 1110] (ed. de Rijk 1970) and the *Logica "Ingredientibus"* [*ca.* 1120] (ed. Geyer 1919–27; part. tr. Spade, *Five Texts* 1994), the latter a formal commentary on the *ars vetus*. Also extant are a later commentary on the *Isagoge* known as the *Glossulae* (or *Logica "Nostrorum petitioni sociorum"*) [*ca.* 1125] (ed. Geyer 1933); an early *Introductiones parvulorum* (ed. Dal Pra 1969); a *Tractatus de intellectibus* (ed. Morin 1994; tr. King, *Problem of Universals* 1982); and a *Sententiae* (ed. Minio-Paluello 1958) concerned with puzzles over wholes and parts. The ethical works consist of his most widely read philosophical treatise, the *Scito teipsum* (*Know Thyself*, also known as the *Ethics*) [1130s] (ed. Ilgner 2001; tr. Spade 1995; ed. and tr. Luscombe 1971) and the *Collationes* [*ca.* 1128] (ed. and tr. Orlandi and Marenbon 2001), a dialogue between a Christian, a Jew, and a philosopher. In theology, his first condemned treatise, the *Theologia summi boni* [1120] was expanded into the *Theologia Christiana* [*ca.* 1125–6], and further revised into the *Theologia scholarium* [*ca.* 1134], which seems to have been the focus of attack at Sens (all three ed. in *Opera theologica*). His *Sic et non* (ed. Boyer and McKeon 1977) is not an original work, but rather collects patristic texts on a series of 158 questions. We know a great deal about Abaelard's life because of his *Historia calamitatum* (ed. Monfrin 1974) and the famous correspondence with Héloïse (ed. Muckle 1953–5), both translated many times. Other letters, sermons, and various lesser works survive as well (see PL 178).

Secondary sources. Brower and Guilfoy (eds.), *Cambridge Companion* (2004); Jacobi, "Speech Sign 'Est'" (1986); King, *Problem of Universals* (1982); Kretzmann, "Culmination" (1982); Luscombe, *School of Peter Abelard* (1969); Marenbon, *Philosophy of Peter Abelard* (1997); Mews, *Abelard and Heloise* (2005); Pinziani, *Logical Grammar* (2003); de Rijk, "Semantics" (1986); Thomas (ed.), *Petrus Abaelardus* (1980); Tweedale, *Abailard on Universals* (1976); Wilks, "Essential Predication" (1998); BCPMA (Marenbon); CALMA; Dronke; REP (Tweedale); SEP (King).

PETER OF ABANO (de Apono, Aponensis) b. Abano (Veneto), *ca.* 1250; d. 1315. Physician, philosopher, translator. Studied in Padua; subsequently journeyed to Constantinople, *ca.* 1270–85. Studied and taught in Paris in the 1290s, then perhaps taught medicine in Montpellier. Returned to Padua in 1306, where he ultimately died in prison after coming under theological suspicions. His two major works are the *Conciliator differentiarum philosophorum et praecipue medicorum* [1303; rev. 1310] (ed. 1565/1985), which is a comparative study of Greek and Arabic medicine and philosophy, and a commentary on the pseudo-Aristotelian *Problemata* [1310] (ed. 1501, etc.). His best-known medical work is a treatise on poison, the *De venenis atque eorundem commodis remediis* [1303] (ed. 1537, etc.). His scientific interests are reflected in the *Lucidator dubitabilium astronomiae* [1303; rev. 1310] (ed. Federici Vescovini 1988).

Secondary sources. Ferrari, *Tempi* (1900); Hasse, "Theory of the Soul" (2001); Lagerlund, "Anatomy of Perception" (2008); Nardi, *Saggi* (1958); Olivieri, *Pietro d'Abano* (1988); Paschetto, *Pietro d'Abano* (1984); Siraisi, "*Expositio Problematum*" (1970); Thorndike, *History* (1923–58), "Manuscripts" (1944); DSB (Premuda); Weijers.

PETER OF AILLY (Petrus de Alliaco) b. Compiègne (Picardy), 1350; d. Avignon, 1420. Progressive philosopher and theologian, associated with nominalism. Studied in Paris at the College of Navarre beginning in 1364; master of arts in 1368. Studied theology from 1368, obtaining his doctorate in 1381. Grand master of Navarre in 1384–9; chancellor of the university in 1389–95. Bishop of Le Puy in 1395 and Cambrai in 1397, and finally cardinal of Cambrai in 1411. Participated in the Council of Constance in 1414–18, where he played a leading role in the condemnation of John Hus. Authored over 170 works, mainly devoted to ecclesiastical questions, especially the Great Schism. His philosophical and theological work dates from his early years at Paris and includes a *Sentences* commentary [1376–7] (ed. 1490/1968), a *Tractatus de anima* [1377/81] (ed. Pluta 1987), a treatise on Boethius's *Consolation* (part. ed. Chappuis 1993), and various logical works, including studies of concepts (ed. Kaczmarek 1980; tr. Spade 1980) and insolubles [early 1370s] (ed. 1499, etc.; tr. Spade 1980). A polemic against the *modi significandi* (ed. Kaczmarek 1980, 1994) has been wrongly ascribed to him. Although the treatise on the soul is his only surviving work in natural philosophy, Peter became well known for his scientific interests, particularly his cosmographical treatise, the *Imago mundi* [*ca.* 1410] (ed. and [Fr] tr. Buron 1930). Various treatises and sermons were collected in a Renaissance edition (1490/1971).

Secondary sources. Chappuis *et al.*, "Die philosophischen Schriften" (1986); Biard, "Présence et représentation" (1992); Calma, "Commentaire sur les *Sentences*" (2007); Kennedy, *Harvest* (1986); Meller, *Erkenntnislehre* (1954); Oakley, *Political Thought* (1964); Pluta, "Unsterblichkeit" (1990); Smoller, *History, Prophecy, and the Stars* (1994); BCPMA (Lee); CHLMP; DMA (Beyer de Ryke); DSB (Kren); REP (Pluta); Weijers.

PETER ALFONSI b. Huesca (Aragon), *ca.* 1060; d. *ca.* 1140. A former rabbi who converted to Christianity in 1106. Court physician to Alfonso I of Aragon and Henry I of England. Most famous for a collection of Oriental tales, the *Disciplina clericalis* (tr. Hermes and Quarrie 1977). His *Dialogus* (PL 157; [Sp] tr. Tolan *et al.* 1996) argues for converting

Jews. Also the author of works of astronomy and probably a study of the elements (ed. and tr. Dales 1976).

Secondary sources. Burnett, "Works" (1997); d'Alverny, "De elementis" (1986); Lasker, "Jewish–Christian Polemics" (1996); Dronke.

PETER OF AQUILA b. *ca.* 1275; d. Agnone (Molise), 1361. Franciscan theologian. Studied at Paris, lecturing on the *Sentences* probably in 1337–8 (ed. Paolini 1907–9, etc.). Also extant are a compendium of the *Sentences* and a commentary on the *Ethics* (both unedited). A follower of Scotus, for which he became known as the *Scotellus* or "Little Scotus."

Secondary sources. Bernards, "Zum Schrifttum" (1953); Schmitt, "Compendium" (1950); Vittorini, "La teoria delle idee" (2008); BBK (Meier-Oeser); FA; Weijers.

PETER AURIOL (Aureol, Aureoli, Oriel) b. near Cahors (southern France), *ca.* 1280; d. 1322. Innovative Franciscan theologian. Probably joined the Franciscan order before 1300 and subsequently studied in Paris. Lectured at Franciscan *studia* in Bologna in 1312 and Toulouse in 1314–16 before returning to Paris to study theology in 1316. Regent master from 1318 to 1320. Elected provincial minister of Aquitaine in 1320 and archbishop of Aix-en-Provence in 1321. Auriol's philosophical thought is extremely original but dense and difficult. His views were often discussed by subsequent authors, but almost always critically. His principal work is his *Sentences* commentary. The first version, the *Scriptum*, covers only Book I (ed. Rome, 1596; prol. and dd. 1–8 ed. Buytaert 1952–6; part. tr. CTMPT III). It was begun in Toulouse and finished soon after his arrival in Paris. He began a new series of lectures in Paris, and *reportationes* on all four books survive, in various more or less revised redactions (Bks. II–IV ed. 1605). (The 1596–1605 edition is extremely unreliable, and work on a critical edition is in the early stages. Various preliminary partial editions have been published in journals. See Friedman's web page www.peterauriol.net for further texts and bibliography.) Other extant works include a *Quodlibet* [1320] (ed. 1605); an extremely popular treatise on scriptural interpretation, the *Compendium sensus litteralis totius divinae Scripturae* (ed. Seeboeck 1896); and two early treatises, a *Tractatus de paupertate et usu paupere* [1311] (ed. 1512), and an unfinished philosophical work, his *Tractatus de principiis naturae* [1312] (unedited).

Secondary sources. Boehner, "*Notitia Intuitiva*" (1948); Denery, *Seeing and Being Seen* (2005); Dreiling, *Konzeptualismus* (1913); Duba, "Aristotle's *Metaphysics*" (2001); Friedman, "Intentions and Essential Predication" (1999); Friedman and Nielsen (eds.), *Vivarium* (2000); Halverson, *Predestination* (1998); Goris, "Implicit Knowledge" (2002); Nielsen, "Dictates of Faith" (1996), "Intelligibility of Faith" (1999), "Way with Words" (2002), "*Quodlibet*" (2007); Perler, "Intentionality" (1994), "What Am I Thinking About?" (1994); Schabel, *Theology at Paris* (2000); Vignaux, *Justification* (1934); BCPMA (Nielsen); DMA (Cesalli); DTC (Teetaert); REP (Pasnau); SEP (Friedman); Weijers.

PETER OF AUVERGNE (de Alvernia) b. Crocq (Auvergne); d. Clermont-Ferrand, 1304. Parisian arts master and theologian. Studied at Paris, perhaps under Aquinas, although

he remained unaffiliated to any religious order. Rector of the University of Paris in 1275 and regent master of theology from 1296 to 1302, at which point he was named bishop of Clermont. Although sometimes regarded as a Thomist, Peter's work is quite independent. His literal and question commentaries on Aristotle are among the most important of the thirteenth century: he commented on virtually the whole Aristotelian corpus, including extant works on the *ars vetus* (*Categories* ed. Andrews 1987; *Isagoge* ed. Tiné 1997), the *Metaphysics* (part. ed. Hocedez, in "*Quaestiones*" 1932; Monahan 1955), the *Ethics* (ed. Celano 1986), the *Posterior Analytics* (part. ed. Pinborg, in "A New MS," 1973), the *parva naturalia* (ed. White 1986); *De memoria* (ed. Bloch 2007); *De brev. vitae* (ed. Dunne 2002), *De plantis* (ed. Poortman 2003), and perhaps the *Physics*, if a commentary traditionally ascribed to Siger of Brabant is in fact Peter's (ed. Delhaye 1941). He also completed Aquinas's commentaries on the *Politics* (part. ed. Grech 1967; part. tr. CTMPT II), *De caelo*, and *Meteora* (all edited with Aquinas's work). The separate questions on the *De caelo* have also been edited (Galle 2003). Peter's logical works, which include a collection of *sophismata* (part. ed. Ebbesen, in "*Animal est omnis homo*" 1993), show him to have been associated with the speculative grammarians. From his later years as master of theology we have six *Quodlibeta* (unedited) and fragments from his *Sentences* commentary.

Secondary sources. Galle, "Bibliography" (2000/5); Andrews, "Denomination" (1988); Dunphy, "Similarities" (1953), "Twofold Efficient Cause" (1966); Ebbesen, "*Termini accidentales concreti*" (1986); Galle, "Whether or Not the Heaven" (2001), "Unicity of the World" (2001); Gauthier, "Questiones super librum Ethicorum" (1964); Hocedez, "La théologie" (1930), "La vie et les œuvres" (1933), "L'individuation" (1934), "La philosophie des Quodlibets" (1935); de Leemans, "*De motu animalium*" (2004); Monahan, "Subject of Metaphysics" (1954); Rosier-Catach and Ebbesen, "Syllogizantem" (2004); Schabel, "Quodlibeta" (2007); White, "Aquinas and the Prologue" (1990); BCPMA (Andrews); CHLMP; DMA (Bonino); Lohr; REP (Andrews); Roensch; Weijers; www.paleography.unifr.ch/petrus_de_alvernia/.

PETER OF CANDIA (Petros Philargis; Pope Alexander V) b. Crete, *ca.* 1340; d. Bologna, 1410. Franciscan theologian. Orphaned as a child and educated by the local Franciscans, joining the order in 1357. Studied the arts in Padua, and then theology at Franciscan *studia* in Norwich, Oxford, and Paris. Lectured on the *Sentences* at Paris in 1378–80, becoming master in 1381. A series of ecclesiastical appointments culminated in his election as pope in 1409. His philosophical importance rests on his *Sentences* commentary, which circulated widely in the fifteenth century, although it was never printed. Containing few original ideas, it was nevertheless an important conduit by which a wide range of earlier, progressive fourteenth-century ideas were transmitted to later scholasticism. An electronic edition is well underway: www.ucy.ac.cy/isa/Candia/texts.htm.

Secondary sources. Brown, "Believing and Knowing" (1994–7) [edits *Sent.* prologue], "Hundred-Year 'History'" (1991), "Sermons" (1976); Ehrle, *Sentenzenkommentar* (1925); Schabel, "Prelude to the Quarrel" (1998); BCPMA (Schabel); FA.

PETER CEFFONS *fl.* 1350. Cistercian theologian. Lectured on the *Sentences* at Paris in 1348–9; later became abbot of Clairvaux. His lengthy commentary is extant in just a

single manuscript and remains almost entirely unstudied and unedited. Its introductory letter (ed. Trapp, in "Peter Ceffons" 1957) is notable for its criticisms of the condemnations of 1347.

Secondary sources. Elderidge, "Changing Concepts" (1978); Genest, "Dieu trompeur" (1984); Murdoch, "*Subtilitates Anglicanae*" (1978); BCPMA (Schabel).

PETER THE CHANTER (Cantor) b. near Beauvais, *ca.* 1130; d. Longpont Abbey, (northern France) 1197. Paris theologian. Educated at the cathedral school at Rheims, where he subsequently taught and became both canon and cantor. Master of the Notre Dame cathedral school in Paris by 1173, again serving as cantor. Died en route to Rheims, where he had been elected dean of the cathedral chapter. Best known for his *Verbum abbreviatum* [before 1187] (short vers. ed. PL 205; long vers. ed. Boutry 2004), an instruction manual for preachers and teachers. Also extant is a *Summa de sacramentis et animae consiliis* [*ca.* 1191] (ed. Dugauquier 1954–7), as well as the *De tropis loquendi* (unedited) and various biblical commentaries (unedited).

Secondary sources. Baldwin, *Masters, Princes, and Merchants* (1970); Evans, "Work of 'Terminist Theology'" (1982); BBK (Reinhardt).

PETER COMESTOR b. Troyes; d. Paris, *ca.* 1180. Theologian and historian. Educated at the cathedral school at Troyes, where he subsequently taught. Chancellor of Notre Dame Cathedral by 1168, a position that gave him authority over the cathedral school and that he retained even after retiring from teaching to the abbey of St. Victor in 1169. Most popular work was his biblical history, the *Historia scholastica* [1169/73] (PL 198; *Liber Genesis*, ed. Sylwan 2005), which soon became a required text in the theology curriculum. Philosophically most important is his theological *summa*, the *Sententiae de sacramentis* (ed. Martin 1937). Also extant are a large number of sermons (PL 171, 198).

Secondary sources. Daly, "Peter Comestor" (1957); BBK (Rappenecker).

PETER DAMIAN b. Ravenna, *ca.* 1007; d. Faenza, 1072. Monastic leader and Church reformer, suspicious of philosophical learning. Studied the arts and law in various Italian universities; subsequently became well known as a teacher of rhetoric. After a religious conversion *ca.* 1035, he entered the Benedictine monastery at Fonte Avellana (near Gubbio), becoming prior in 1043. His work displays a persistent animosity to philosophy, which he regards as at best the servant of theology. These writings, usually in the form of letters (which number over 180) (ed. Reindel 1983–93; tr. Blum 1989–2005), are typically concerned with spiritual matters, or with ecclesiastical and monastic reform. The best known of the latter kind is his *Liber gomorrhianus* [*ca.* 1051] (Letter 31). His main contribution to philosophy comes in his *De divina omnipotentia* [1065] (Letter 119), in which he has famously been read to suggest that God could make it the case that a past event did not occur. A collection of his spiritual writings is available in English (tr. McNulty 1959), and his sermons are available in a modern edition (ed. Lucchesi 1983). The complete works are edited in PL 144–5.

Secondary sources. Dressler, *Leben und Werk* (1954); Endres, *Petrus Damiani* (1910); Gaskin, "Divine Power" (1997); Gonsette, *La culture profane* (1956); Holopainen, *Dialectic and Theology* (1996), "Necessity" (1999); Leclercq, *Saint Pierre Damien* (1960); Moonan,

"Impossibility" (1980); Ranft, *Theology of Work* (2006); Remnant, "Could God Change the Past?" (1978); Resnick, *Divine Power* (1992); BCPMA (Sanford); REP (Mann); SEP (Holopainen).

PETER OF FALCO *fl.* 1280s. Paris theology master. His traditional identification as a Franciscan has been confirmed by a recently discovered document placing him at the Barcelona convent in 1281. Only fragments of his *Sentences* commentary are extant, but both a *Quodlibet* (ed. Gondras 1966) and a large collection of disputed questions (ed. Gondras 1968) have survived.

Secondary sources. Piron, "Franciscan *Quodlibeta*" (2006); FA.

PETER HELIAS (Petrus Heliae) b. Poitiers, *ca.* 1100; d. Poitiers, after 1166. Grammarian. Student of Thierry of Chartres at Paris in the 1130s; became a renowned teacher of grammar and rhetoric in Paris. Returned to Poitiers *ca.* 1155, where he was a cathedral official. Author of a commentary on Cicero's *De inventione* [1130–9] (unedited) and a widely used grammar textbook, the *Summa super Priscianum* [*ca.* 1150] (ed. Reilly 1993). His followers became known as the Heliste.

Secondary sources. Fredborg, "Dependence" (1973), "On Rhetoric" (1974), "Speculative Grammar" (1988); Hunt, "Studies I" (1941–3); Kneepkens, "Grammar and Semantics" (2000); Rosier-Catach, "Les acceptions" (1987); BCPMA (Kneepkens); Dronke.

PETER OF IRELAND *fl.* 1250s. Arts master who taught at Naples in the 1250s. Traditionally identified as Aquinas's teacher at Naples in the 1240s – a thesis that is now in doubt. Extant works include commentaries on the *De interpretatione* (ed. Dunne 1996) and the *De longitudine et brevitate vitae* (ed. Dunne 1993). Questions on the *Posterior Analytics* (part. ed. Ebbesen and Pinborg, in "Studies" 1970) have also been ascribed to him.

Secondary sources. Robiglio, "Neapolitan Gold" (2002); Lohr; Weijers.

PETER OF JOHN OLIVI (Olieu) b. Sérignan (Languedoc), 1247/8; d. Narbonne, 1298. Controversial, iconoclastic theologian. Joined the Franciscan order at the age of twelve. Studied in Paris from 1267 to 1272, but did not incept as master of theology. Subsequently lectured at various Franciscan convents, mainly in Montpellier and Narbonne, but also in Florence in 1287–9. These years were punctuated by various controversies, with his views condemned by the Franciscan authorities in 1283. Although he was subsequently allowed to teach again, his views remained under a cloud of suspicion even after his death, with various doctrines condemned at the Council of Vienne in 1311–12 and again by John XXII in 1326. Because of this controversy, Olivi's work was not widely circulated and has only recently been recognized as brilliantly anticipating many of the leading theological and philosophical movements of the next century.

Olivi was most controversial and influential as an early proponent of Franciscan spiritualism, with its strict understanding of mendicant poverty (see his *Tractatus de usu paupere* [1281/2] (ed. Burr 1992) and its inflammatory reading of the *Apocalypse*. (Olivi's commentary on that work [1296–7] (unedited) was condemned by John XXII in 1326.) Olivi's philosophical views were equally unorthodox, as highlighted by his uncompromising rejection of Aristotle's authority. His philosophical masterpiece is his

Summa [*ca.* 1274–95] – not a *Sentences* commentary but a revised collection of various disputed questions (Bk. II ed. Jansen 1922–6; Bk. III ed. Emmen and Stadter 1981; some parts still unedited). A *reportatio* of his lectures on the *Sentences* (from his years in Florence) remains unedited. His many other works include *Quodlibeta* [1289–95] (ed. Defraia 2002), questions on logic [*ca.* 1285] (ed. Brown 1986), and many biblical commentaries, including Genesis (ed. Flood 2007), Proverbs and Ecclesiastes (ed. Schlageter 2003), Acts (ed. Flood 2001), and the Gospel of John (part. ed. Pasnau 1993; part. tr. CTMPT III). For documents pertaining to his 1283 condemnation, see his *Epistola ad fratrem R.* (ed. Piron *et al.* 1998) and also Laberge, "Tria scripta" (1935) and Fussenegger, "Littera septem sigillorum" (1954).

Secondary sources. Piron, "Parcours d'un intellectuel franciscain" (1999) [biobibliography], "Les œuvres perdues" (1998), "Franciscan *Quodlibeta*" (2006); Bettoni, *Le dottrina filosofiche* (1959); Boureau and Piron (eds.), *Pierre de Jean Olivi* (1999); Burr, "Olivi and the Philosophers" (1971), "Persecution" (1976), *Franciscan Poverty* (1989), *Peaceable Kingdom* (1993); Cross, "Absolute Time" (2002); Dumont, "Origin" (1995); Gieben, "Bibliographia" (1968); Jansen, *Erkenntnislehre* (1921); Kaye, "Liberty of Indifference" (2004); Madigan, *Interpretation of Matthew* (2003); Maranesi, "IV libro della *Summa*" (2002); Martin, "Self-Knowledge and Cognitive Ascent" (2007); Pasnau, *Theories of Cognition* (1997), "Metaphysics of Soul" (1997), "Human Freedom" (1999); Perler, *Theorien der Intentionalität* (2002); Putallaz, *Insolente liberté* (1995), "Les idées divines" (2003); BCPMA (Putallaz); DMA (Putallaz); REP (Pasnau); SEP (Pasnau); Weijers.

PETER LOMBARD b. Novara (Piedmont), 1095/1100; d. 1160. Theologian and author of the *Sentences*, which became the standard medieval theology textbook. Studied at Bologna, then Rheims and Paris in 1136, probably under Hugh of St. Victor. A master in his own right by 1142. Named canon of Notre Dame in 1145 and bishop of Paris in 1159. The *Sententiae in quattuor libris distinctae* [1148–52; rev. 1155–7] (ed. Brady 1971–81; tr. Silano 2007–) is a systematic compilation of biblical texts and Church authorities organized into four books, beginning with God (I), then creatures (II), then Christ (III), and finally the sacraments (IV). Also composed commentaries on the Psalms [before 1138] (PL 191) and Paul's epistles [1139–41] (PL 191–2). His sermons [1140–60] have been printed as the work of Hildebert of Lavardin (in PL 171).

Secondary sources. Colish, *Peter Lombard* (1994); Delhaye, *Pierre Lombard* (1961); Monagle, *Christological Nihilism* (2007), *Pietro Lombardo* (2007); Rosemann, *Peter Lombard* (2004), *Story of a Great Medieval Book* (2007); BCPMA (Rosemann); DMA (Boulnois); DTC (de Ghellinck); REP (Colish).

PETER OF MANTUA (de Alboinis) d. 1400. Logician. Student at Padua in 1389; professor of natural and moral philosophy in Bologna from 1392 until his death. Author of an extensive *Logica* (ed. 1477, etc.), an important source for the transmission of English logic to Italy. Also composed a *De primo et ultimo instanti* (ed. with *Logica*).

Secondary sources. Boh, *Epistemic Logic* (1993); Bos, "Tract on *appellatio*" (1982), "Rejection of *Ampliatio*" (1983), "Treatise *De veritate et falsitate*" (1985); de Libera, "Apollinaire Offredi" (1982); James, "Philosopher-Humanist" (1974); Maierù, "Problema del

significato" (1974); Pasnau, "William Heytesbury on Knowledge" (1995); Spade, *Medi-aeval Liar* (1975); Weijers.

PETER OF NAVARRE (de Atarrabia) b. Spain; d. 1347. Franciscan theologian. Lectured on the *Sentences* in the early 1320s, probably in Barcelona; only Bk. I is extant (ed. Azcona 1974).

Secondary sources. Azanza Elío, *El conocimiento de Dios* (1997); FA.

PETER OF PALUDE b. Bresse (eastern France), *ca.* 1275; d. Paris, 1342. Dominican the-ologian. Entered the Dominican order as a youth in Lyon. Studied theology in Paris, lecturing on the *Sentences* in 1309–10. Regent master in 1314–17. Patriarch of Jerusalem in 1329. Much involved in ecclesiastical affairs, including processes against Durand of St. Pourçain in 1313–17, Peter of John Olivi in 1320, and controversies over the beatific vision in 1333. In philosophy and theology he aspired to faithful Thomism. Principal works are his *Sentences* commentary [1310–15] (ed. 1495, etc.) and various sermons (ed. 1491, etc.). Also extant are a *Tractatus de potestate papae* [*ca.* 1317] (ed. Stella 1966), a concordance to Aquinas's *Summa theologiae* (ed. 1552), several *Quodlibeta* (unedited), and an extensive set of biblical commentaries (unedited).

Secondary sources. Dunbabin, *Hound of God* (1991); Schabel *et al.*, "The Parisian Reaction" (2001); DS (Duval); DTC (Hedde and Amman); Kaeppeli; Roensch.

PETER OF PISA b. 744; d. Italy, before 799. Grammarian. Taught at Pavia, where he held a public disputation with a Jew named Lullus. Came to the court of Charlemagne after the conquest of Lombardy in 773–4, where he is famously said to have taught grammar to the emperor. Extant writings are an elementary grammar based on Donatus (in three versions); a collection of extracts from Priscian, Diomedes, and Pompeius; and a commentary on Daniel. An edition of the grammatical works is in progress (ed. Luhtala).

Secondary sources. Holtz, "La grammaire carolingienne" (1992); Law, *Grammar and Grammarians* (1997).

PETER OF POITIERS (Pictaviensis) b. Poitiers, *ca.* 1130; d. Paris, 1205. Studied in Paris, perhaps under Peter Lombard and Peter Comestor, becoming master of the cathedral school of Notre Dame in 1169. Appointed chancellor of the new university at Paris from 1193 until his death. Author of a theological *Sententiae* in five books [*ca.* 1170] (PL 211; Bks. I–II ed. Moore and Dulong 1943–50), a work notable for departing from Lombard by introducing a fifth book devoted to ethics. Also extant are many sermons and a *Summa de confessione* (ed. Longère 1980).

Liable to be confused with other Peters from Poitiers, including one who authored his own book of *Sentences*, the *Zwettler Summe* [*ca.* 1150] (ed. Häring 1977) [see Peter of Vienna], and the canon of St. Victor who died circa 1216.

Secondary source. Moore, *Works* (1936).

PETER OF SPAIN (Petrus Hispanus non papa) *fl.* late twelfth century. Author of the *Summa "Absoluta cuiuslibet"* (ed. Kneepkens, in *Het Iudicium Constructionis* 1987), a grammatical

treatise based on the *Priscianus minor*. Not to be confused with other figures of the same name (see below).

Secondary sources. Hunt, "*Absoluta*" (1975); Kneepkens, "The *Absoluta cuiuslibet*" (2000).

PETER OF SPAIN (Petrus Hispanus) *fl.* 1230s–40s. Renowned logician. Author of the highly influential *Summulae logicales* or *Tractatus* [1230/45] (ed. de Rijk 1972; tr. Dinneen 1990; part. tr. CTMPT I) and also the *Syncategoreumata* [1235/45] (ed. and tr. de Rijk and Spruyt 1992). Traditionally identified as the future Pope John XXI (see below), but now generally thought to be a Dominican friar. His precise identity remains in dispute.

Secondary sources. D'Ors, "Petrus Hispanus" (1997–2003); Dinneen, "Suppositio" (1990); de Rijk, "Origins of the Theory" (1982); Tugwell, "Petrus Hispanus" (1999), "Auctor Summularum" (2006); Yrjönsuuri, "Words and Things" (2000); BCPMA (Klima); REP (Longeway); SEP (Spruyt).

PETER OF SPAIN (Petrus Juliani; Pope John XXI; Petrus Hispanus Portugalensis) b. Lisbon, *ca.* 1205; d. Viterbo, 1277. Scholar and pope. Studied the arts at Paris in the 1220s, then medicine, probably in southern France. Professor of medicine in Siena from 1245. Physician of Pope Gregory X in 1272. Elected archbishop and cardinal in 1273 and then Pope John XXI in 1276; died when the roof of his study collapsed. Apparently provided the impetus for the Condemnation of 1277. His authorship of various works is contested: perhaps the author of two famous logical treatises (see above); of the *Thesaurus pauperum* (on medical prescriptions) and other medical works (ed. Pereira 1973; ed. Salmón 1998); of one or more of three different works on the soul (ed. Alonso 1941–52); and/or of commentaries on pseudo-Dionysius (ed. Alonso 1957) and Aristotle's *De animalibus* (unedited).

Secondary sources. De Asúa, "Medicine and Philosophy" (1999); Bazán, "13th-Century Commentaries on *De anima*" (2002); Lohr; REP (Longeway); Weijers.

PETER SUTTON b. England; *fl.* 1310. Franciscan theologian. Regent master of theology at Oxford *ca.* 1308/11. Extant are various disputed questions (ed. Etzkorn 1964) and *Quodlibeta* (ed. Etzkorn 1963), as well as a separate question on the univocity of being (ed. Schmaus 1933), all dating from his regency.

Secondary source. Glorieux, "Peut-on identifier" (1960).

PETER OF TARENTAISE (Pope Innocentius V) b. Isère (French Alps), *ca.* 1224; d. Rome, 1276. Dominican theologian, later pope. Studied theology in Paris, becoming regent master in 1258–60 and again in 1267–9. Dominican provincial minister of France in 1264–7 and 1269–72; archbishop of Lyon in 1272; cardinal in 1273. Elected pope in 1276. Most influential for his *Sentences* commentary [1256–8] (ed. 1649–52/1964). Also extant are a *Quodlibet* [1264] (ed. Glorieux 1937) and various disputed questions (unedited, except for a question on the eternity of the world in Dales and Argerami, *Medieval Latin Texts* 1991), as well as commentaries on Paul's letters (ed. 1478, etc., under the name 'Nicolas de Gorran').

Secondary sources. Friedman, "Dominican Quodlibetal Literature" (2007); Gillet, *Studia et documenta* (1953); Laurent, *Le bienheureux Innocent V* (1947); DMA (Bonino); Glorieux; Kaeppeli.

PETER THOMAE b. Catalonia, *ca.* 1280; d. *ca.* 1340. Franciscan philosopher. Studied theology in Paris. Lector at the Barcelona *studium ca.* 1316–32. Subsequently investigated for sorcery and witchcraft. Imprisoned in 1340, where he died. A follower, albeit critically, of Scotus. Edited works include a *Quodlibet* from Barcelona (ed. Hooper and Buytaert 1957), as well as treatises *De distinctione predicamentorum* [*ca.* 1320] (ed. Bos 2000), *De ente* (part. ed. Dumont, in "Univocity" 1988), and *De unitate minori* (ed. Bos 2002). Also extant are Bk. I of his *Sentences* commentary [1323/6] and several other philosophical treatises (all unedited).

Secondary sources. Bridges, *Identity and Distinction* (1959); Dumont, "Univocity" (1988); Gál, "Proof for the Existence of God" (1998); Hoeres, "Zur Ontologie" (1961); Maierù, "Logica e teologia trinitaria" (1991); Schabel, "Divine Foreknowledge" (2003); FA; Weijers.

PETER OF TRABES *fl.* 1290s. Franciscan theologian, probably Italian. Taught at the Florence *studium generale*, where he was influenced by Peter of John Olivi. Apparently never became master at Paris. His extant works (all unedited) include a *Sentences* commentary, which survives both as a *reportatio* of Bks. II–III [1294–6] and as an *ordinatio* of Bks. I, II, and IV [1297/1300]. Some disputed questions and two *Quodlibeta* [1295–6] also survive.

Secondary sources. Huning, "Stellung" (1964); Piron, "Franciscan *Quodlibeta*" (2006).

PETER THE VENERABLE (of Montboissier) b. Auvergne, *ca.* 1092; d. Cluny, 1156. Theologian and monastic leader. Raised in the Cluniac monastery of Sauxillanges. Abbot of Cluny from 1122 until his death, making it a center of learning and influence in the Christian world. Commissioned the first Latin translation of the Quran and subsequently authored a polemic against Islam (ed. Kritzeck, *Peter the Venerable and Islam* 1964). Also wrote treatises against Judaism (ed. Friedman 1985) and the heretic Peter de Bruis (ed. Fearns 1968); despite their polemical character, these treatises are notable for being charitable and fair-minded. His theological works include a treatise *De miraculis* (ed. Bouthillier 1988). The *Opera omnia* is printed in PL 189. His correspondence is available in a modern edition (ed. Constable 1967).

Secondary sources. Torrell and Bouthillier, *Pierre le Vénérable* (1986) [biography]; Constable and Kritzeck (eds.), *Petrus Venerabilis* (1956); Kritzeck, *Peter the Venerable and Islam* (1964); BCPMA (Sanford).

PETER OF VIENNA (Peter of Poitiers?) b. *ca.* 1120; d. 1183. Theologian, disciple of Gilbert of Poitiers. Lived in Paris; moved to Vienna before 1153, when he exchanged heated letters with Gerhoh of Reichersberg over the Trinity. In addition to these and other letters (ed. Häring, in "Liber de differentia" 1962), Peter is perhaps the author of the so-called *Zwettler Summe* [*ca.* 1150] (ed. Häring 1977).

Secondary source. Fichtenau, "Magister Petrus von Wien" (1975).

PHILIP THE CHANCELLOR b. Paris, *ca.* 1160s; d. 1236. Influential early theologian at the University of Paris. Studied and taught in Paris. Appointed archdeacon of Noyon before 1211 and chancellor of Notre Dame Cathedral from 1217 until his death, which gave him jurisdiction over the university and involved him in long-running disputes over university politics. His principal work is his massive *Summa de bono* [1225/36] (ed. Wicki 1985; part. tr. Houser, in *Cardinal Virtues* 2004), a comprehensive theological treatise organized around the concept of the good, and one of the earliest Latin works to take account of the newly recovered Islamic–Aristotelian material. Also extant are a large collection of sermons (part. ed. Davy, in *Sermons* 1931) and poetry, most of which survives in musical settings.

Secondary sources. Dronke, "Lyrical Compositions" (1987); McCluskey, "Roots of Ethical Voluntarism" (2001); MacDonald, "Goodness as Transcendental" (1992); Principe, *Hypostatic Union* (1963–75); BCPMA (Houser); DMA (Imbach); Dronke; REP (MacDonald); SEP (McCluskey).

PHOTIOS (Photius) b. *ca.* 810; d. after 893. Scholar and patriarch of Constantinople, a major force in the revival of classical education in Byzantium. Served as patriarch for two terms, and at the same time played a vital pedagogical role in Constantinople. A nominalist, he rejected both Plato's ideas and Aristotle's forms. His main philosophical work is a large set of questions known as the *Amphilochia* (ed. Laourdas and Westerink 1983–8). Also extant are many letters (ed. Laourdas and Westerink 1983–8; part. tr. in White, *Patriarch Photios* 1981) and homilies (ed. Laourdas 1959; tr. Mango 1958), and the mammoth *Bibliotheca* (ed. Schamp and Kindt 2003), a descriptive catalogue of ancient works.

Secondary sources. Schamp, *Photios* (1987); Tatakis, *Byzantine Philosophy* (2003); ODB (Kazhdan).

PIERRE, *see also* Peter.

PIERRE ROGER (Pope Clement VI) b. Maumont (Corrèze), 1291; d. 1352. Benedictine theologian, later pope. Studied in Paris, reading the *Sentences* in 1320–1 and becoming master in 1323. Various ecclesiastical positions culminated in his election to the papacy in 1342. Best known as a scholar for his dispute with Francis of Meyronnes concerning the Trinity [1320–1] (ed. Barbet 1961). His *Sentences* commentary has not been found.

Secondary sources. Wood, *Clement VI* (1989); BBK (Bautz); Weijers.

PLACENTINUS b. Piacenza; d. Montpellier, 1192. Jurist and glossator. Studied in Bologna; taught both there and in Mantua before leaving for Montpellier, where he founded the school of law in 1160. Subsequently returned to Bologna and Piacenza as a teacher, returning to Montpellier just a few years before his death. His legal work was extremely influential on later generations, and would often be cited and reprinted. The principal work is the *Summa Codicis* [1170s] (ed. 1536/1962). He also authored a *Summa Institutionum* [1170s] (ed. 1536) and a *Summa de actionum varietatibus* [*ca.* 1160] (ed. Wahrmund 1925/1962). He may also be the author of the *Quaestiones de iuris subtilitatibus* (ed. Zanetti 1958), traditionally ascribed to Irnerius.

Secondary sources. Kantorowicz, "Poetical Sermon" (1938); de Tourtoulon, *Placentin* (1896/1972).

PLETHON, *see* George Gemistos Plethon.

PROCHOROS KYDONES b. Thessalonike, *ca.* 1335; d. *ca.* 1371. Byzantine scholar and translator; younger brother of Demetrios Kydones. Took monastic vows as a youth at the Great Lavra monastery in Athos, becoming a priest *ca.* 1364. Expelled from the monastery in 1367 because of his opposition to Palamism. Condemned and excommunicated in Constantinople in 1368. Translated Augustine, Boethius, and Aquinas (see Appendix B5). His own principal work is the Thomistic *On Essence and Energy* [1367], formerly ascribed to Gregory Akindynos (ed. Filovski and Petrusevski 1973–6). Also extant is a brief note on the value of syllogisms in theology (ed. Tinnefeld, in "Ein Text" 1994).
  Secondary sources. Russell, "Prochoros Cydones" (2006); BBK (Todt); ODB (Talbot).

PROFIAT DURAN (Efodi, Isaac ben Moses Levi) d. *ca.* 1414. Theologian, historian, and anti-Christian polemicist. Studied the Talmud in Germany, settled in Catalonia, employed as a tutor. Forced to convert to Christianity, he nevertheless continued his literary work, dedicating scientific treatises to important Christian figures but writing anti-Christian polemics on the side. By 1403 he was able to return openly to Judaism. His most important philosophical works are a commentary on Maimonides's *Guide* (ed. in early editions of the *Guide*) and the introduction to his grammatical treatise, *Maʿaseh Efod* [1403] (ed. 1865). Most famous of his polemical works is a satirical letter, "Do not be as your fathers" [1391/7] (tr. Kobler, in *Letters of Jews* 1953), written to a friend who backed out of a plan to emigrate to Palestine.
  Secondary sources. Lasker, *Jewish Philosophical Polemics* (1977); REP (Kellner and Leaman); Sirat.

PROSPER OF REGGIO EMILIA b. 1270s; d. 1332/3. Augustinian Hermit and Paris theologian. Studied in Paris, then served as lector at Milan. Returned to Paris to lecture on the *Sentences*, incepting as master of theology in 1316. Returned to Italy in 1318, becoming regent at the Augustinian convent at Bologna by 1321, where he taught until his death. Extant works include a *Sentences* commentary (prologue and Bk. I only) [prob. 1314–15] and various disputed questions [*ca.* 1313] (all unedited).
  Secondary sources. Courtenay, "Reflections" (2007); Pelzer, "Prosper de Reggio Emilia" (1928).

PRUDENTIUS OF TROYES (Galindo) b. Spain; d. Troyes (northeast France) 861. Historian engaged in predestination dispute. Left Spain in his youth; studied at the court of Charles the Bald and became bishop of Troyes by 847. Attacked Hincmar's views on predestination *ca.* 849, seemingly taking the side of Gottschalk. Subsequently attacked John Scottus Eriugena's views in this same area in 851. His *Annales Bertiniani* are an important source for ninth-century French history. His work is edited in PL 115.

PTOLEMY OF LUCCA (Bartholomew, Tolomeo dei Fiadoni) b. Lucca (Tuscany); d. Torcello, 1327. Political theorist and historian; Dominican friar and student of Aquinas. Served as prior of convents in Lucca and Florence from 1287 to 1307; lived in the papal court of Avignon in 1309–19; bishop of Torcello from 1318. Best known for completing Aquinas's *De regimine principum* (from II.4) [*ca.* 1300] (ed. Spiazzi 1954, etc; tr. Blythe 1997). Other works include the *Determinatio compendiosa* [*ca.* 1280] (ed. Krammer 1909); an *Exaemeron* (*De operibus sex dierum*) [1285–95] (ed. Masetti 1880); and various historical works, most notably the *Annales* [1303–6] (ed. Schmeidler 1955) and the *Historia ecclesiastica nova* [1313–16] (ed. Muratori 1727).

Secondary sources. Blythe, "Aristotle's *Politics*" (2002); Davis, "Roman Patriotism" (1975); König, *Tolomeo von Lucca* (1878); Krüger, *Leben und Werke* (1874); La Salle and Blythe, "Civic Humanist" (2005); Nederman and Sullivan, "Reading Aristotle through Rome" (2008); Kaeppeli.

AL-QUSHAYRĪ (Abū al-Qāsim) b. Ustuwa (northeast Iran), 986; d. Nishapur, 1072. Sufi scholar and theologian. Born into a wealthy family; fell under the influence of the Sufi master Abū ʿAlī al-Daqqāq while in Nishapur and subsequently devoted himself to religious study. Becoming the head of the Sufi madrasa in Nishapur, he eventually came into conflict with the local authorities, and after a brief imprisonment left for Baghdad in 1056. With a change in the political situation, he returned to Nishapur *ca.* 1063. His many extant works range widely over theology, law, and mysticism. Most prominent is his *Risāla* [1045–6] (ed. Mahmūd and Ibn al-Sharīf 1966; tr. Knysh 2007), which argues for the conformity of Sufi beliefs with Islamic law and theology. His *Al-taḥbīr fī al-tadhkīr* (*The Reminder Tractate*) (ed. Busyūnī 1968) is a mystical commentary on God's ninety-nine names.

Secondary sources. Ahmad, "Theologian and Commentator" (1969); BEIP (Kuşpinar); EI (Halm).

QUSṬĀ IBN LŪQĀ (Costa ben Luca) b. Baalbek (Lebanon); d. Armenia, 912/13. Scientist, philosopher, and translator. Of Christian origin, he lived for many years in Baghdad, where he was an eminent scholar and physician. Relocated to Armenia to serve as the royal physician there. Best known for his *De differentia animae et spiritus*, which was especially influential in its Latin translation by John of Seville [1125/52] (ed. Barach 1878/1968; Wilcox 1985).

Secondary sources. Daiber, "Einteiling der Wissenschaften" (1990); EI (Hill).

RADULPHUS ARDENS (Raoul Ardent) b. Beaulieu (Poitou); d. *ca.* 1200. Theologian and popular preacher. Probably studied at the cathedral school in Poitiers; a student of Gilbert of Poitiers after 1141. Became chaplain of Richard I. His principal extant theological work is the *Speculum universale* [1193–1200] (table of chapters ed. Gründel 1961), also known as the *Summa de vitiis et virtutibus*. His preaching seems to have given rise to the surname 'Ardent'; his extant homilies are collected in PL 155.

Secondary sources. D'Alverny, "L'obit" (1940); Gründel, "L'œuvre encyclopédique" (1966), *Lehre des Radulfus Ardens* (1976); Landgraf, "Der Porretanismus" (1940);

Michaud-Quantin, "Die Psychologie" (1958); Wolf, "La préface" (1979); DMA (Beyer de Ryke).

RADULPHUS BRITO (Ralph the Breton, Raoul de Hotot) b. *ca.* 1270; d. *ca.* 1320. Prominent philosopher and logician. Master of arts at the University of Paris by 1296, incepted as master of theology, probably in 1314; provisor of the Sorbonne in 1315–20. A leading figure among the *modistae*. Although Brito's philosophical writings were both original and widely influential, his many extant works have been only partly edited. These include questions on *De anima* III (ed. Fauser 1974); on Boethius's *Topics* (ed. Green-Pedersen and Pinborg 1978); on Priscian minor (ed. Enders and Pinborg 1980); on the *ars vetus* (ed. 1499); and excerpts from his *Sophismata* (various eds.) and his questions on the *Isagoge* (part. ed. Pinborg, in "Radulphus Brito" 1980). Unedited works (except for excerpts in the secondary literature) include questions on the *Prior* and *Posterior Analytics*, *Sophistical Refutations*, *Physics*, *Meteorology*, and perhaps the *Metaphysics*. From his theological studies there is a *Sentences* commentary [1308–9], a *Quodlibet*, and *Quaestiones in vesperis*.

Secondary sources. Courtenay, "Master of Arts and Theology" (2005); Ebbesen, "Rationale est animal" (1978), "Dead Man is Alive" (1979), "Brito on the Metaphysics" (2000), "The Last of the Great Arts Masters" (2000); Jolivet, "L'intellect et le langage" (1985); McMahon, "Sufficiency of the Categories" (1981); Marmo, *Semiotica e linguaggio* (1994); Pinborg, *Entwicklung der Sprachtheorie* (1967), *Logic und Semantik* (1972), *Medieval Semantics* (1984) [papers]; Roos, "Zwei Quaestionum" (1978); Sirridge, "Universal Living Thing" (2007); BCPMA (Wilson); REP (Ebbesen).

RADULPHUS DE LONGO CAMPO b. 1153/60; d. Provence, after 1213. Physician and arts master. Cistercian monk. Spent time in the abbey of Cîteaux, but lived mainly in Provence, teaching in Montpellier. His edited works are an encyclopedic *Distinctiones* [*ca.* 1190] (ed. Sulowski 1976) and a commentary on Alan of Lille's *Anticlaudianus* (to Bk. IV) [1212/13] (ed. Sulowski 1972) which offers a straightforward exposition of Alan's allegorical treatment of the seven liberal arts. Unedited works include a youthful *Cornicula, seu Summula de philosophia*, and a *Computus*.

Secondary source. Dronke.

RALPH OF BEAUVAIS b. England, *ca.* 1100; d. after 1180. Grammar master. Studied in France under Peter Abaelard. Became an influential teacher at Beauvais. Extant works are his *Glosae super Donatum* (ed. Kneepkens 1982) and the *Liber Tytan* (ed. Kneepkens 1991), a set of grammatical notes on Ovid and Lucan.

Secondary source. Hunt, "Studies on Priscian II" (1950).

RALPH OF LAON (RAOUL) b. Laon; d. 1131. Arts master. Brother of Anselm of Laon, with whom he achieved fame at the school they founded in Laon in 1076. Seems, with his brother, to have begun what would become the *Glossa ordinaria* on the entirety of the Christian Bible (PL 113–14; *Biblia latina* 1480–1/1992), which circulated anonymously for centuries. Authored the mathematical treatise, *Liber de abaco* (ed. Nagl, in

Abhandlungen 1890). Various theological *Sententiae* have also been attributed to him (ed. Lottin, in *Psychologie* 1959, vol. V).

Secondary sources. Flint, "School of Laon" (1976); Smalley, *Study of the Bible* (1983).

RALPH STRODE d. 1387. Logician. Fellow of Merton College in 1359–60. Author of a series of treatises [*ca.* 1359] known collectively as the *Logica*, consisting of *De arte logica*, *De principiis logicalibus*, *De suppositionibus*, *Consequentiae* (ed. and tr. Seaton 1973), *Obligationes* (ed. 1493–4, etc.), and *De insolubilibus*. The *Consequentiae* and *Obligationes* became immensely popular in Italy in subsequent centuries, and were copied and printed many times. Engaged in theological controversy with Wyclif, although only the latter's side of the debate survives.

Secondary sources. Ashworth, "Ralph Strode on Inconsistency" (1993); Novaes, "*Obligationes*" (2006); Ashworth and Spade, "Logic in Late Medieval Oxford" (1992); BCPMA (Georgedes); CHLMP; ODNB (North).

RAMBERT DE' PRIMADIZZI OF BOLOGNA b. Bologna; d. Venice, 1308. Dominican theologian. A friar by 1268, he eventually obtained his theology doctorate at Paris, becoming regent master in 1295–9. Prior of the Bologna convent in 1301; bishop of Castellum in 1303. His principal work is the *Apologeticum veritatis* [1286/8] (ed. Müller 1944), the last of the Thomistic *correctoria* written in response to William de la Mare.

Secondary sources. Glorieux; Kaeppeli.

RAOUL, *see* Radulphus *or* Ralph.

RATRAMNUS OF CORBIE b. *ca.* 800; d. after 868. Prominent early medieval theologian. Benedictine monk at the abbey of Corbie (Picardy); little else is known of his life. Best known for his Eucharistic treatise *De corpore et sanguine Domini* (ed. Bakhuizen van den Brink 1974; tr. McCracken, in *Early Medieval Theology* 1957). Also of philosophical interest are two treatises *De anima* (ed. Wilmart 1931; ed. Lambot 1952) and *De praedestinatione* (PL 121).

Secondary sources. Bouhot, *Ratramne de Corbie* (1976); Marenbon, *Circle of Alcuin* (1981); BBK (Wesseling).

RAYMOND LULL (Llull) b. Majorca, 1232/3; d. Tunis, 1316. Idiosyncratic philosopher, theologian, mystic. Spent his youth as a royal courtier until a religious experience at age thirty led him to pursue a life of religious study. Devoted himself to refuting the Muslim faith; to that end, he learned Arabic and attempted to establish a new method of demonstrating the doctrines of the Christian faith. Traveled extensively, promoting his ideas among Christians, attacking Latin Averroism, and evangelizing among Muslims. Suspected of unorthodoxy at various points, Lull's work became more influential during the Renaissance than it was in the Middle Ages. Some 240 works are extant in Catalan and Latin (still more writings, in Arabic, have not survived). The most prominent philosophical works are those describing his novel method of inquiry, including the *Ars demonstrativa* [*ca.* 1283] and the *Ars brevis* [1308]. This method is applied to Christian apologetics in the *Libre del gentili i dels tres savis* [*ca.* 1275] and to medicine in the *Liber*

principiorum medicinae [*ca.* 1276] (all four tr. Bonner 1985). A critical edition of the Latin works is ongoing (*Opera latina* 1975–), although the older *Opera omnia* remains useful (ed. Salzinger 1721–40/1965). Many of the Catalan works are collected in *Obres* (ed. Obrador y Benassar *et al.* 1906–50), with a *Nova edició de les obres* in progress (ed. 1990–). Most of our biographical information comes from a contemporary anonymous *Vida* [*ca.* 1311] (ed. Batllori and Hillgarth 1982).

   Secondary sources. Brummer, *Bibliographia* (1976); Salleras i Carolà, "Bibliografia" (1986); Garcías, *Llull y el Islam* (1981); Hames, *Art of Conversion* (2000); Hillgarth, *Lull and Lullism* (1971); Johnston, *Spiritual Logic* (1987), *Evangelical Rhetoric* (1995); Moreno Rodríguez, *La lucha contra el averroismo* (1982); Platzeck, *Raimund Lull* (1962–4); Urvoy, *Penser l'Islam* (1980); Yates, "Art of Ramon Lull" (1954); BCPMA (Lohr); DMA (Tenge-Wolf); REP (Johnston). The journal *Studia Lulliana* (1957–) is published in Majorca (formerly *Estudios Lulianos*).

RAYMOND OF PENNAFORT b. near Barcelona, *ca.* 1175; d. Barcelona, 1275. Dominican canon lawyer. Studied first in Barcelona, then in Bologna *ca.* 1210–20. Returned to Barcelona, where he entered the Dominican order in 1222. Served as chaplain to Pope Gregory IX in 1230–6, producing the standard compilation of post-Gratian canon law known as the *Liber extra* [1234]. Appointed master general of the Dominican order in 1238–40, during which time he revised the constitutions of the order. Subsequently returned to Barcelona, where he was active in organizing missionary work among Muslims and Jews. Raymond's most influential work is the *Summa de paenitentia* (*Summa de casibus conscientiae*, or *Raymundina*) [*ca.* 1221] (ed. Ochoa and Diez 1976), to which a fourth part on matrimony was added *ca.* 1335 (ed. Ochoa and Diez 1978; tr. Payer 2005). Also authored a *Summa de iure canonico* [*ca.* 1216] (ed. Ochoa Sanz and Diez Garcia 1975).

   Secondary sources. Longo (ed.), *Magister Raimundus* (2002); Mas i Solench, *Ramon de Penyafort* (2000); Rius y Serra (ed.), *Diplomatario* (1954); Schwertner, *Saint Raymond of Pennafort* (1935); Valls i Taberner, *San Ramón de Penyafort* (1936/1979); Kaeppeli.

AL-RĀZĪ, Abū Bakr Muḥammad ibn Zakarīyā' (Rhazes) b. Rayy (Persia), *ca.* 865; d. Rayy, 925/35. Physician, philosopher, and director of hospitals in Rayy and Baghdad. Principal area of influence was medicine, where he was a leading authority throughout the Middle Ages. His main surviving works are in this area, including a diary of clinical observations and various medical treatises. Foremost among these is his nine-volume *Al-Ḥāwī* (*Compendium*) (ed. 1955–68), a collection of case notes compiled by his students, which was translated into Latin in 1279 as the *Continens Liber* (ed. 1486, etc.). His opposition to revealed religion made him a controversial figure – all the more so because he took Socrates and Plato, rather than Aristotle, as his inspiration. Among his few surviving works in philosophy (ed. Kraus 1939), the most significant are concerned with ethical issues, *Al-Sīra al-falsafiyya* (*The Philosophical Life* – a philosophical autobiography) (tr., with other works, in McGinnis and Reisman, *Classical Arabic Philosophy* 2007) and *Al-Ṭibb al-rūḥānī* (*The Spiritual Medicine*) (tr. Arberry 1950).

   Secondary sources. Druart, "Al-Razi's Conception of the Soul" (1996), "Al-Razi's Ethics" (1997); Goodman, "Razi's Psychology" (1972), "Fall of the Soul" (1975);

Stroumsa, *Freethinkers* (1999); Walker, "Political Implications" (1992); BCPMA (Druart); BEIP (Leaman); EI (Goodman); HIP (Goodman); REP (Walker).

AL-RĀZĪ (Abū Ḥātim) b. near Rayy; d. Azerbaijan, *ca.* 934. Leading figure in the Ismāʿīlī movement in Persia; reputedly succeeded in converting various local rulers, but ultimately forced into exile. Best-known work is a theological dictionary, the *Kitāb al-zīna* (*Book of Ornament*) (ed. al-Hamadānī 1994). Also extant are a *Kitāb al-iṣlāḥ* (*Book of Correction*) (ed. Muḥaqqiq *et al.* 1998), aimed at al-Nasafī, and the *Aʿlām al-nubūwwah* (*Signs of Prophethood*) (ed. 2003), which records his controversies with Abū Bakr al-Rāzī.

Secondary sources. Poonawala, *Biobibliography* (1977); Daftary, *Ismāʿīlīs* (1990); Stern, *Studies* (1983); Walker, "The Ismāʿīlīs" (2005); BEIP (Aminrazavi); EI (Stern).

AL-RĀZĪ (Fakhr al-Dīn) b. Rayy (Persia), 1149/50; d. Herat, 1209/10. Influential theologian and philosopher. Studied in Rayy and subsequently traveled widely, settling in Herat *ca.* 1203 to found an academy. Although suspicious of philosophy, his theological works depend extensively on it. The vast number and range of his extant works defies brief summary. In philosophy, his most important works are *Al-Mabāḥith al-mashriqiyya* (*Eastern Studies*) [before 1185] (ed. 1990), and his commentary on the physics and metaphysics of Avicenna's *Ishārāt wa-al-tanbīhāt* (part. ed. with Avicenna's text, in Dunyā, 1957–60). Also important is his theological treatise, *Muḥaṣṣal afkār* (*The Harvest of Thought*) (ed. 1905). Most prominent of all is his massive commentary on the Quran, the *Mafātīḥ al-ghayb* (*The Keys to the Unknown*), also known as *Al-Tafsīr al-kabīr* (*The Great Commentary*) (ed. 1934–62, etc.).

Secondary sources. Kholeif, *Study* (1966); Shihadeh, *Teleological Ethics* (2006); BEIP (Leaman); EI (Anawati); REP (Cooper).

REMIGIO DE' GIROLAMI (Remi of Florence) d. Florence, 1319. Dominican theologian, political theorist, and influential preacher. Studied the arts in Paris and entered the Dominican order there *ca.* 1269. Lector in the Florence convent from *ca.* 1274, and then elsewhere in Italy. Subsequently served as provincial minister of the Roman Province in 1309–11, and prior of his convent in Florence. Notable works are his *Contra falsos ecclesiae professores* [before 1298] (ed. Tamburini 1981), celebrating the authority and wisdom of the Church; the *De subiecto theologiae* [1297–9] (ed. Panella 1982); the political treatises *De bono communi* [1302] and *De bono pacis* (both ed. Panella, in "Dal bene commune" 1985); the metaphysical *De modis rerum* (ed. Gavric 2007); and a *Quodlibet* (ed. Panella 1983).

Secondary sources. Davis, "Early Florentine Political Theorist" (1960); de Matteis, *La "teologia politica communale"* (1977); Panella, "Remigiana" (1982); Rupp, "Damnation" (2000); Kaeppeli.

REMIGIUS OF AUXERRE (Autissiodorensis) b. West Franconia, *ca.* 841; d. 908. Benedictine monk and noted commentator. Taught in Auxerre and served as director of the monastery school there from 876, in Rheims from 893, and in Paris from 900. Author of many marginal glosses and commentaries on Scripture, Priscian, Donatus, Bede, and Phocas, inter alia. Particularly notable are his commentary on the *De nuptiis* of Martianus

Capella (ed. Lutz 1962–5); his *Expositio super Genesim* (ed. Edwards 1999); his commentary on Boethius's *Consolatio* (part. ed. Silk, in *Saeculi noni* 1935; Troncarelli, in *Tradizioni perdute* 1981; tr. Stewart 1916); and his *Ennarationes in Psalmos* (PL 131).

Secondary sources. Iogna-Prat and Jeudi (eds.), *L'école caroligienne d'Auxerre* (1991); Marenbon, *Circle of Alcuin* (1981).

RICHARD BILLINGHAM *fl.* 1340s–50s. English logician and theologian. Fellow of Merton College *ca.* 1344 – *ca.* 1361 and author of several influential logic textbooks, most notably the *Speculum puerorum* (also known by its incipit: *Terminus est in quem*) (ed. Maierù 1970; ed. de Rijk, in *Some 14th-Century Tracts* 1982), which would later circulate widely in Italy. Also extant are treatises *De consequentiis* (ed. Weber 2003), *De significato propositionis*, and *De sensu composito et diviso* (both unedited). Parts of a later *Sentences* commentary also seem to have survived (unedited).

Secondary sources. Bos, "Richard Billingham's *Speculum*" (2007); de Rijk, "The Place" (1975), "Works on Logic" (1976), "Semantics in Billingham and Venator" (1982); DMA (de Libera); ODNB (Fletcher).

RICHARD BRINKLEY *fl.* 1350–73. English logician and theologian. Joined the Franciscan order in Oxford, where he was active. Only complete surviving work is the *Summa nova de logica* [1355/73], a basic textbook of logic, parts of which have been edited: *De propositionibus* (part. ed. and tr. Fitzgerald 1987); *De insolubilibus* (ed. Spade 1969); *De obligationibus* (ed. Wilson and Spade 1995). Also extant are portions of his *Sentences* commentary (part. ed. Kaluza, in "Œuvre théologique" 1989). His theological *Determinationes* are now lost.

Secondary sources. Gál and Wood, "Richard Brinkley" (1980); Spade, "Logic of *sit verum*" (1994–7); BCPMA (Georgedes); CHLMP; ODNB (Fitzgerald); REP (Andrews).

RICHARD OF BROMWICH *fl.* 1300s. Benedictine theologian. Studying at Oxford by 1304 and master by 1312. Sole surviving work is a *Sentences* commentary [1305/9] extant in a single autograph manuscript (unedited).

Secondary source. Schabel and Friedman, "Trinitarian Theology IV" (2004).

RICHARD OF CAMPSALL b. Campsall (Yorkshire), 1280/5; d. *ca.* 1330. Theologian. Bachelor of arts at Balliol College and regent master of arts by 1306 at Merton College, with which he remained affiliated through the remainder of his life. Master of theology by 1322. Remained unaffiliated with any religious order. His extant writings are a series of twenty disputed questions on the *Prior Analytics* [*ca.* 1306] and treatises on prime matter, divine foreknowledge, and universals [*ca.* 1318] (all ed. Synan 1968–82). His *Sentences* commentary [1316–17] is no longer extant, though it is widely cited by later English theologians. The anti-Ockhamist *Logica* is now credited to an unknown pseudo-Campsall (ed. Synan 1982). It cannot be authentic, because Campsall's own views are similar to Ockham's and indeed may have influenced Ockham.

Secondary sources. Gelber, "Logic and Trinity" (1974); McDermott, "Materials" (1990); Tachau, "Influence" (1987), "New Evidence" (1991); BCPMA (Georgedes); ODNB (Synan).

RICHARD OF CLIVE *fl.* 1276–1306. Oxford theologian. Master of arts and fellow of Merton College by 1276; doctor of theology by 1288. Continued studies of theology at Paris in 1291–2. Chancellor of Oxford in 1297–8. Extant works include commentaries on the *Physics* and *Metaphysics* (unedited).

Secondary sources. Little and Pelster, *Oxford Theology* (1934); Andrews and Noone, "Newly Identified Redaction" (1994); Ebbesen, "Talking About What Is No More" (1987); Emden; Lohr.

RICHARD OF CONINGTON d. Cambridge, 1330. Franciscan theologian. Perhaps studied theology in Paris in the 1290s but was studying at Oxford by 1300. Lectured on the *Sentences* at Oxford *ca.* 1302–3, becoming regent master *ca.* 1306. Subsequently lectured on the Bible at Cambridge. Provincial minister of the English Franciscans in 1310–16. Although a contemporary and confrère of Scotus, Richard's views owe more to Henry of Ghent. No record of his *Sentences* commentary has been found, although several disputed questions are extant (unedited). Several treatises on apostolic poverty have survived: one from 1312 (ed. Heysse 1930) and another from 1322 (ed. Douie, in "Three Treatises" 1931).

Secondary sources. Brown, "Analogy of the Concept of Being" (1966); Doucet, "L'œuvre scolastique" (1937); Dumont, "William of Ware" (1996); FA; ODNB (Courtenay).

RICHARD OF FERRYBRIDGE (Feribrigge) *fl.* 1350s–60s. Logician and natural philosopher. Master of arts at Oxford; subsequently served as rector at several churches in Nottinghamshire in the 1360s. Two works on logic are extant: a *Logica seu de veritate propositionum* (part. ed. Del Punta, in "La *Logica*" 1982), and a *Consequentiae* (ed. 1493; part. ed. Pozzi, in *Consequentiae* 1978). Also surviving, in a single manuscript, is a treatise *De motu* (part. ed. Clagett, in *Science of Mechanics* 1959).

Secondary sources. Ashworth and Spade, "Logic in Late Medieval Oxford" (1992); Bertagna, "Richard Ferrybridge's *Logica*" (1993); Green-Pedersen, "Early British Treatises on Consequences" (1985); DMA (de Libera); ODNB (Ashworth).

RICHARD FISHACRE b. Exeter, *ca.* 1205; d. Oxford, 1248. Early Dominican theologian. Joined the Dominican order as a young man; studied theology at Oxford. Master of theology from *ca.* 1240, during which time he composed the first Oxford commentary on Lombard's *Sentences* [*ca.* 1245] (ed. Rödler *et al.* 2003–). Subsequently authored a treatise on heresies, *Adnotationes in S. Augustini librum de haeresibus* (ed. Long 1993) and various philosophical *quaestiones*, including ones on the eternity of the world (ed. Long, in "First Oxford Debate" 1998) and on the nature of light (ed. Long and Noone, in "Metaphysics of Light" 1998).

Secondary sources. Brown, "Need for Philosophy" (1988); Callus, "Introduction" (1943); Long, "Science of Theology" (1972), "Way to God" (1988), "Moral and Spiritual Theology" (1990), "*De libero arbitrio*" (1995), "Angels and Pinheads" (1998); BCPMA (Long); Kaeppeli; ODNB (Long).

RICHARD FITZRALPH (Armachanus) b. Dundalk (Ireland), 1295/1300; d. Avignon, 1360. Theologian, best known for his vehement opposition to the mendicant orders. Studied arts at Oxford by 1315, becoming master of arts in 1325. Lectured on the *Sentences* in 1327–8 or the following year (unedited), becoming master of theology in 1331. Chancellor of Oxford in 1332–34, during a tense period at the university. Subsequently traveled repeatedly to Avignon, becoming immersed in ecclesiastical issues. Appointed dean of Lichfield Cathedral in 1335; elected archbishop of Armagh in 1346, a position he held until his death. Disputes in Avignon with the Armenian Church led to his *Summa de quaestionibus Armenorum* [1340s] (ed. 1512), which would be read into the sixteenth century. During his last years he became heavily involved in criticizing the mendicant friars, a case he made in his *De pauperie Salvatoris* [1357] (part. ed. Poole 1890) and in various sermons, most notably the *Defensio curatorum* [1350], which also circulated in Middle English (tr. John Trevisa [*ca.* 1380] 1925/1987).

Secondary sources. Walsh, *Richard FitzRalph* (1981); Coleman "Antimendicant" (1984); Dawson, "Poverty Controversies" (1983); Genest, "Contingence et révélation" (1991), "Aux origines" (2002); Gwynn, "Sermon-Diary" (1937–8); Leff, *Commentator of the Sentences* (1963); BCPMA (Georgedes); ODNB (Walsh).

RICHARD KILVINGTON b. Yorkshire, 1302/5; d. London, 1361. Philosopher and theologian, one of the Oxford Calculators. Began his studies at Oxford by 1319, becoming master of arts in 1324/5 and doctor of theology *ca.* 1335. Probably a fellow of Oriel College. Lived in the London household of Richard Bury, and became active in the service of Edward III. Archdeacon of London by 1350, from which office he supported Richard Fitzralph's campaign against the mendicant friars. His only edited scholarly works are a philosophically rich collection of *Sophismata* [early 1320s] (ed. Kretzmann and Kretzmann 1990; tr. Kretzmann and Kretzmann 1990). Also extant are questions on the *Generation and Corruption* [before 1325], *Physics* [1325/6], and *Ethics* [1326/32], as well as a short *Sentences* commentary [*ca.* 1333–4].

Secondary sources. Jung-Palczewska, "Works" (2000), "Motion in a Vacuum" (1997), "Concept of Time" (2000); Katz, "On a *Sophisma*" (1996); BCPMA (Sylla); REP (Kretzmann); SEP (Jung).

RICHARD KNAPWELL d. Bologna, 1289. Early English Thomist. Dominican friar; bachelor of the *Sentences* at Oxford during the 1270s, becoming master of theology in 1284. Author of the *Correctorium "Quare"* [*ca.* 1283] (ed. Glorieux 1927), responding to William de la Mare's anti-Thomistic treatise. His *Quaestio de unitate formae* [1285/6] (ed. Kelley 1982) resulted in his excommunication by the Franciscan John Pecham; his appeal to Pope Nicholas IV, also a Franciscan, led to a sentence of perpetual silence in 1288. Also extant are various *Quodlibeta* and disputed questions [1284–6] (unedited).

Secondary sources. Callus, "Unity of Form" (1959); Jordan, "Controversy" (1982); Iribarren, "Responsio" (2001); DMA (Bonino); Kaeppeli; ODNB (Tugwell); Roensch.

RICHARD LAVENHAM b. Lavenham (Suffolk); *fl.* 1399 – *ca.* 1403. Logician, natural philosopher, and theologian. Entered the Carmelite order at Ipswich. Educated at Oxford, advancing to the study of theology. Prior of Carmelite convents at London

and perhaps Bristol in 1399. Credited with over sixty works, many of which are still extant but mostly unedited. In theology, he is best known for a list of heresies he drew from the works of the Wycliffite John Purvey [1400/3] (ed. Netter and Shirley, *Fasciculi zizaniorum* 1858 [pp. 383–9]; tr. Foxe, *Actes* 1570 [pp. 649–53]). In philosophy, his logical writings have received the most attention, including a brief *De syncategorematibus* (ed. 1510, etc.) and various other brief works edited by Paul Spade (in "Treatises" 1973; "Five Logical Tracts" 1974; "Notes" 1975; "*Obligationes*" 1978; "Notes" 1980; "Treatise *Scire*" 1984 [with G.A. Wilson]). There are also various extant works in natural philosophy (all unedited), including a *Speculum naturalis philosophiae* and a *Parvus tractatus de anima*. In Middle English, there survives *A Litil Tretys* (ed. van Zutphen 1956) on the seven deadly sins.

Secondary sources. Ashworth and Spade, "Logic in Late Medieval Oxford" (1992); d'Ors, "Sobre las *Obligationes*" (1991); Spade, "Richard Lavenham and the Cambridge Logic" (1980); CHLMP; Lohr; ODNB (Spade).

RICHARD OF MIDDLETON (de Mediavilla, Menneville) b. *ca.* 1249; d. Rheims, 1302/3. Franciscan theologian in the Augustinian tradition. Native of either England or France. Studied in Paris in 1276–84, becoming regent master of theology in 1284–7. Provincial minister of France in 1295. His *Sentences* commentary [*ca.* 1280; rev. *ca.* 1290?] (ed. 1591/1963) offers an early Franciscan reaction to the work of Aquinas – a reaction that becomes more critical in his three *Quodlibeta* [1284–7] (ed. 1590/1963). A large number of disputed questions [early 1280s] remain unedited (q. 13 ed. Fidelis a Fanna 1874; q. 38, ed. Vanni Rovighi, *L'immortalita* 1936). The treatise *De gradu formarum* (ed. Zavalloni, *La controverse* 1951) is an important work in the dispute over the plurality of substantial forms.

Secondary sources. Hocedez, "Sa vie, ses œuvres" (1925); Sharp, "Richard of Middleton" (1930); Cunningham, "*Esse* and Existence" (1970); Henninger, "Natalis and Mediavilla" (1994); van Veldhuijsen, "The Created World" (1990); Zavalloni, *La controverse* (1951); BCPMA (Cross); DMA (Lambert); ODNB (Brown); REP (Brown).

RICHARD ROLLE (de Hampole) b. Thornton Dale (Yorkshire), 1305/10; d. Hampole, 1349. English mystic and contemplative author. Studied at Oxford, but left without a degree after a religious conversion. Subsequently lived as a recluse, writing and serving as a spiritual advisor. His devotional writings, written both in Latin (such as *De emendatione vitae* and *De incendio amoris*) and in Middle English (such as *The Pricke of Conscience* and *The Form of Perfect Living*), were extremely influential and have been edited and translated extensively (ed. Ogilvie-Thomson 1988, etc.; tr. Allen 1988, etc.).

Secondary sources. Watson, *Invention of Authority* (1991); ODNB (Hughes).

RICHARD RUFUS OF CORNWALL (Cornubiensis) b. Cornwall; d. after 1259. Franciscan theologian and philosopher. Studied the arts at Paris before becoming a friar in 1238. Studied theology at Oxford, lecturing on the *Sentences* there in 1250–3. Returned to Paris, giving further lectures on the *Sentences* in 1253–5. Appointed regent master of theology at Oxford in 1256. Two sets of lectures on the *Sentences* survive (both unedited): the Oxford lectures (Bks. I–III only) and a later lecture that builds on Bonaventure's

commentary and might date either from Paris or from Richard's later regency in Oxford. In addition to several brief disputed questions, he is the author of a *Contra Averroem* [1236–7] and a *Speculum animae* [1245]. There is controversy over whether Rufus is also the author of various Aristotelian commentaries: on the *Physics*, *Posterior Analytics*, *De anima*, *De generatione et corruptione*, and two on the *Metaphysics* [all dated to 1235–8, assuming Rufus is the author]. A critical edition of the whole corpus is in progress: to date only the uncertainly attributed *Physics* has been published (ed. Wood 2003).

Secondary sources. Donati, "Anonymous" (2005); Gál, "Viae" (1956), "Opiniones" (1975); Karger, "Substantial Transmutation" (2002); Noone, *Edition and Study* (1987), "Authorship" (1989), "Creation" (1993); Plevano, "Instant of Change" (1993); Raedts, *Richard Rufus* (1987); Wood, "Physics" (1992), "*Speculum animae*" (1995), *De anima* (2001); BCPMA (Wood); DMA (Wood); ODNB (Raedts); REP (Wood).

RICHARD OF ST. VICTOR d. 1173. Augustinian theologian, mystic, and contemplative author. Born in Britain (by tradition Scotland, but possibly either England or Ireland). Entered the Augustinian abbey at St. Victor (near Paris) in the 1140s or early 1150s, becoming sub-prior by 1159 and prior in 1162. A follower of Hugh of St. Victor, though perhaps not his student, Richard followed Hugh as master of the famous monastery school. His writings can be divided into the exegetical, contemplative, and analytical. The major exegetical work is the *Liber exceptionum* [prob. 1153–9] (ed. Châtillon 1958), an introduction to the Bible. Among the contemplative writings, the most influential were the so-called *Benjamin maior* [1153/62] (also known as the *The Mystical Ark* or the *De gratia contemplationis*) (ed. PL 196; tr. Zinn 1979) and *Benjamin minor* [1153/62] (also known as *The Twelve Patriarchs* or the *De praeparatione animi ad contemplationem*) (ed. Châtillon *et al.* 1997; tr. Zinn 1979). His most influential work of analytical theology is the *De trinitate* (ed. Ribaillier 1958; part. tr. Zinn 1979), often cited by scholastic authors. Also significant is the *De statu interioris hominis* (ed. Ribaillier 1967). A further assortment of contemplative writings is available in English (tr. Kirchberger 1957). The *Opera omnia* is printed in PL 196; various later collections are also available (ed. and tr. [Fr] Châtillon *et al.* 1951; ed. Ribaillier 1967; ed. Châtillon *et al.* 1986).

Secondary sources. Chase, *Angelic Wisdom* (1995); Dumeige, *L'idée chrétienne de l'amour* (1952); Spijker, *Fictions of the Inner Life* (2004); BCPMA (Emery); ODNB (Haren); REP (Emery).

RICHARD THE SOPHISTER (Ricardus Sophista, Magister Abstractionum) *fl.* 1230s/40s. Logician. Author of a large collection of sophisms called the *Abstractiones* (unedited), which is perhaps the earliest clear example of the genre and which circulated widely over the next century as a textbook used to identify logical fallacies. Various attempts to identify the author – most prominently, as Richard Rufus of Cornwall – have been met with skepticism.

Secondary sources. De Libera, "La littérature" (1983); Pinborg, "Magister Abstractionum" (1976); CHLMP; SEP (Streveler).

RICHARD SWINESHEAD (Calculator, Suisseth) b. Swineshead (Lincolnshire); *fl. ca.* 1340–54. Leading Mertonian natural philosopher. Educated at Oxford; a fellow at Merton

College by 1344. Famous for the *Liber calculationum* [*ca.* 1350] (ed. 1477, etc.), for which he became known as "the Calculator." This large and difficult work, composed of sixteen treatises, applies quantitative reasoning to natural philosophy. Also extant are three brief treatises: *De motu*, *De motu locali*, and *De caelo* (unedited). Richard was sometimes confused with his older contemporary and perhaps brother, Roger Swineshead, whose work is similar in character.

Secondary sources. Clagett, "Richard Swineshead" (1950); Hoskin and Molland, "Falling Bodies" (1966–7); Murdoch, "*Mathesis*" (1969); Sylla, "Oxford Calculators" (1982); BCPMA (Sylla); DSB (Murdoch and Sylla); ODNB (Molland).

ROBERT ALYNGTON d. Leicestershire, 1398. Oxford philosopher and theologian, a proponent of metaphysical realism. Fellow of Queen's College in 1379–86 and master of arts; doctor of theology by 1393. Chancellor in 1393 and 1395. Extant works include commentaries on the *Categories* (part. ed. Conti 1993) and the *Liber sex principiorum*, as well as treatises on supposition and on the genera of being (all unedited).

Secondary sources. Ashworth and Spade, "Logic in Late Medieval Oxford" (1992); Conti, "Linguaggio e realtà" (1993), "Realist Interpretation" (2008); SEP (Conti).

ROBERT BACON b. 1170s/80s; d. Oxford, 1248. Early Dominican theologian at Oxford. Probably studied in Paris and Oxford; master by 1219. Entered the Dominican order *ca.* 1229, continuing to teach in Oxford for the remainder of his life. Thought to be the author of a *Syncategoremata* from early in his career (unedited). A commentary on the Psalms (unedited) dates from after he became a friar. Bacon's once famous sermons have been almost entirely lost.

Secondary sources. Smalley, "Robert Bacon" (1948); Braakhuis, *De 13de eeuwse tractaten* (1979), "English Tracts on Syncategorematic Terms" (1981); Kaeppeli; ODNB (Dunbabin).

ROBERT BLUND *fl.* 1170s. English grammarian. Author of the *Summa in arte grammatica* (ed. Kneepkens, in *Het Iudicium Constructionis* 1987).

Secondary source. Emden.

ROBERT OF COURSON d. 1219. English moral theologian. Studied in Paris under Peter the Chanter *ca.* 1190–5, teaching there from 1200. Subsequently much involved in ecclesiastical affairs. Elected cardinal in 1212 and was responsible for the statutes of 1215 that structured the University of Paris. Only extant work is his *Summa theologica* [1208/12] (unedited), which is heavily focused on moral questions.

Secondary sources. Dickson and Dickson, "Cardinal Robert de Courson" (1934); ODNB (Sayers).

ROBERT COWTON b. Cowton (Yorkshire); *fl.* 1300–15. Franciscan theologian. Entered the Franciscan order in his youth, studying at Oxford by 1300. His only extant work, a *Sentences* commentary [*ca.* 1309–11] (ed. in progress), survives in many manuscripts (and later abbreviations). Did not become regent master in England, but perhaps in Paris.

Although a contemporary confrère of Scotus, Robert's views owe more to Henry of Ghent.

Secondary sources. Brown, "Analogy of Being" (1971); Friedman, "Trinitarian Theology" (2001); Lottin "Robert Cowton et Jean Duns Scot" (1954); Theissing, *Glaube und Theologie* (1970); FA; ODNB (Courtenay).

ROBERT OF FLAMBOROUGH d. 1224. Moral theologian. Master and canon of the abbey of St. Victor (Paris). Author of the *Liber poenitentialis* [1208/13] (ed. Firth 1971), a guide to confessors in administering penance.

ROBERT FLAND *fl.* mid-fourteenth century. Logician. Perhaps of Flemish origins. Probably associated with Oxford. Our information comes entirely from a single manuscript containing three short treatises (ed. Spade 1976–80) – *Consequentiae*, *Insolubilia*, and *Obligationes* – written between 1335 and 1370.

Secondary sources. CHLMP; ODNB (Brown).

ROBERT GRAYSTANES (Greystones) b. Durham, before 1290; d. Durham, 1334. Oxford theologian and Benedictine monk at the Durham monastery from an early age. Studied philosophy and theology at the Durham house of studies in Oxford, lecturing on the *Sentences ca.* 1321–2 (unedited). Elected bishop of Durham in 1333; forced to renounce the position a month later. In addition to the unedited *Sentences* commentary, Robert is perhaps the author of a chronicle of Durham for the years 1215–34 (ed. Raine, in *Historiae* 1839).

Secondary sources. Kennedy, "Commentary" (1986), "Essence and Existence" (1989); Livesey, "Subalternation" (1994); Schabel and Friedman, "Trinitarian Theology" (2003); Tachau, *Vision and Certitude* (1988); ODNB (Foster).

ROBERT GROSSETESTE (Lincolniensis) b. Suffolk, *ca.* 1170; d. Buckden (Cambridgeshire), 1253. Natural philosopher, translator, theologian, and influential bishop. Seems to have studied at Lincoln and then Cambridge. Between 1196 and 1220 he appears to have been mainly engaged in administrative work in Hereford, with some time spent in Paris. Began teaching at Oxford *ca.* 1225 (although possibly much earlier); elected chancellor, probably *ca.* 1228/30. Gave up his various university and ecclesiastical positions in 1231, becoming lector to the newly established Franciscan community at Oxford (but without himself becoming a friar). Elected bishop of Lincoln in 1235, he devoted most of the remainder of his life to ecclesiastical matters.

Grosseteste's earliest works from his years in Hereford focus on natural philosophy, including *De artibus liberalibus*, *De generatione sonorum*, *De sphaera*, and *De impressionibus aeris* (all ed. Baur 1912). These were followed by commentaries on the *Posterior Analytics* [*ca.* 1228] (ed. Rossi 1981) and the *Physics* [*ca.* 1222–32] (ed. Dales 1963) – the earliest known Latin commentaries on these works. His teaching at Oxford yielded a series of philosophical treatises, including *De veritate*, *De veritate propositionis*, *De scientia Dei* (all three tr. McKeon, in *Selections* 1930), *De statu causarum*, *De intelligentiis*, and *De unica forma* (all ed. Baur 1912), as well as a *De libero arbitrio* (in two recensions) (1st vers. edn Lewis, in "First Recension" 1991; 2nd vers. part. edn Lewis, in "Time and

Modality" 1988; 1st vers. tr. Lewis, in "Time and Modality" 1988). He continued this work while lecturing to the Franciscans, writing a *Hexaëmeron* (ed. Dales and Gieben 1982; tr. Martin 1996) and various short treatises in natural philosophy, including *De impressionibus elementorum*, *De lineis*, *De natura locorum*, *De iride*, *De colore*, and, most importantly, *De luce* (all ed. Baur 1912; the last tr. Riedl 1942), which lays out his famous metaphysics of light. His study of the Greek language, which perhaps began in the 1220s, yielded an impressive set of translations produced during his years as bishop (see Appendices B1–2), including the works of John of Damascus [*ca.* 1237], pseudo-Dionysius (with commentaries) [*ca.* 1240] (*Mystical Theology* ed. and tr. McEvoy 2003), and the first complete Latin translation of Aristotle's *Nicomachean Ethics* [1246–7], together with translations of various ancient commentators on the *Ethics*, supplemented by Grosseteste's own glosses (part. ed. Mercken 1973–91). Several biblical commentaries have been edited as the first volume of a projected *Opera* (ed. McEvoy *et al.* 1995).

Secondary sources. Southern, *Robert Grosseteste* (1986/1992) [biography]; Thomson, *Writings* (1940); Gieben, "Bibliographia" (1969), "Bibliographia" (1995); Callus (ed.), *Robert Grosseteste* (1955); Crombie, *Origins of Experimental Science* (1953); Dales, "Scientific Works" (1961); McEvoy, *Philosophy* (1982), *Robert Grosseteste* (1994) [papers], *Robert Grosseteste* (2000); McEvoy (ed.), *New Perspectives* (1995); Mackie and Goering, *Editing* (2003); Marrone, *New Ideas of Truth* (1983), *Light of Thy Countenance* (2001); BCPMA (Lewis); DMA (Beyer de Ryke); ODNB (Southern); REP (MacDonald); SEP (Lewis). There is also an extensive website, *The Electronic Grosseteste*: www.grosseteste.com.

ROBERT OF HALIFAX b. Yorkshire, *ca.* 1300; d. after 1350. Franciscan theologian. Joined the Franciscan order *ca.* 1318 and studied at Oxford from *ca.* 1324, eventually lecturing on the *Sentences*. Master of theology at Cambridge *ca.* 1336. The *Sentences* commentary [1333/40, Bks. I–II only] (unedited) is his only known work; it was popular enough to have survived in sixteen manuscripts, all on the continent.

Secondary sources. Courtenay, "Some Notes" (1973); BCPMA (Georgedes).

ROBERT HOLCOT (Holkot) b. Holcot (Northamptonshire), *ca.* 1290; d. Northampton, 1349. Influential Dominican theologian and popular author. Joined the Dominicans as a youth and studied at Oxford *ca.* 1326–34. Master of theology at Oxford, probably 1333–4, and then (perhaps) at Cambridge in 1334–6. Subsequently worked as an assistant for Richard Bury, bishop of Durham; eventually returned to Northampton, where he continued to write until his death. Holcot enjoyed a tremendous reputation for centuries, not only for his academic theology but also for more popular works on the Bible. His most important philosophical work is his *Sentences* commentary [1331–3] (ed. 1518/1967, etc.), but also significant are the *Sex articuli*, or *Quaedam conferentiae* [1332] (ed. Hoffmann 1993), a set of *Determinationes* (ed. with *Sent.* commentary), and his quodlibetal questions [1332–4] (part. ed. Gelber 1983; Streveler *et al.* 1995; Courtenay, in "Revised Text" 1971 [tr. CTMPT III]; Jensen, in "Killing Infidels" 1993; Kennedy, in *Skeptic* 1993; Molteni, in *Dottrina della grazia* 1967; Muckle, in "Utrum theologia" 1958). Two shorter surviving treatises are *De imputabilitate peccati* (ed. with *Sent.* commentary) and *De stellis* (ed. Thorndike, in "New Work" 1957). Among his popular works, foremost is his vast and very popular commentary on Wisdom (*Postilla super librum Sapientiae*)

[1334–6] (ed. 1494/1974). Also well known are a work for preachers, the *Moralitates* [late 1330s] (ed. 1514, etc.) and his *Commentary on Ecclesiasticus* [late 1340s] (ed. 1509, etc.). His *Sermo finalis* from the end of his regency in Oxford is extant (ed. Wey, in "*Sermo finalis*" 1949), and his collected sermons survive in a single manuscript (unedited).

Secondary sources. Gelber, "Logic and Trinity" (1974), *It Could Have Been Otherwise* (2004); Gillespie, "Quodlibeta" (1971); Grassi, "Conoscenza teologica" (1979); Hoffmann, *Theologische Methode* (1972); Incandela, "Prophecy" (1994); Oberman, "Facientibus" (1962); Schepers, "Holkot contra dicta Crathorn" (1970–2); Moody, "Objects of Knowledge" (1964); Tachau, "Contingency" (1994), "Logic's God" (1996); BCPMA (Georgedes); DMA (Robert); Kaeppeli; ODNB (Swanson); REP (Pasnau); SEP (Gelber).

ROBERT KILWARDBY b. 1215; d. Viterbo, 1279. Dominican philosopher and theologian, archbishop of Canterbury. Studied the arts at Paris *ca.* 1231–7. Served as arts master until *ca.* 1245, then joined the Dominican order, probably in England, and began studying theology at Oxford. Achieved his doctorate *ca.* 1256 and subsequently served as regent master in 1256–61. Elected Dominican provincial minister of England in 1261; consecrated archbishop of Canterbury in 1273. Entered into philosophical controversy as archbishop in 1277 by condemning thirty propositions, some quite clearly contrary to Aquinas's teaching. Appointed cardinal-bishop of Porto in 1278.

Extensive commentaries survive from his years in Paris, including commentaries on Donatus (ed. Schmücker 1984); pseudo-Priscian's *De accentibus* (ed. Lewry 1988); Priscian minor (unedited) [but not Priscian major, as formerly thought]; perhaps sets of *sophismata* (unedited); and commentaries on the old and new logic (unedited except for *Prior an.* [ed. 1516/1968, etc.], as by 'Giles of Rome') and on *Ethics* I–III (unedited). In Oxford, he wrote an introductory treatise classifying the different sciences, *De ortu scientiarum* [*ca.* 1250] (ed. Judy 1976; part. tr. CTMPT I), and brief treatises [*ca.* 1256–61] *De natura relationis* (ed. Schmücker 1980), *De tempore*, and *De spiritu fantastico* (both ed. and tr. Lewry and Broadie 1987). His major theological work is his *Sentences* commentary [*ca.* 1255] (ed. Leibold *et al.* 1982–93). Two letters with substantial philosophical content survive from his last decade, to John of Vercelli (ed. Dondaine 1977) and to Peter Conflans (ed. Birkenmajer 1922).

Secondary sources. Braakhuis, "Kilwardby vs Bacon?" (1985), "Convertibility of Being and One" (1999); Lewry, "Writings on the Logica Vetus" (1978); Sirridge, "Scientific Grammarian" (1990), "Utrum idem" (2007); Thom, *Logic and Ontology* (2007); DMA (de Libera); Kaeppeli; ODNB (Tugwell); REP (Conti).

ROBERT OF MELUN b. England, *ca.* 1100; d. Hereford, 1167. Theologian, influential teacher, and bishop. Studied in Paris under Hugh of St. Victor and probably Peter Abaelard. Taught in France for over forty years, including at Paris and Melun, founding a school of logic known as the Meludinenses. Joined the attack on Gilbert of Poitiers in 1147, but defended Abaelard. Consecrated as bishop of Hereford in 1163; his remaining years were dominated by the conflict over Thomas Becket. His three extant theoretical works are *Questiones de epistolis Pauli* and *Questiones de divina pagina* [both 1145/57], and

a twice revised but never finished *Sententie* [1150s/60s] (all ed. Martin 1932–52). Perhaps also the author of a brief treatise on universals (ed. Dijs, in "Two Anonymous" 1990).

Secondary sources. Horst, *Die Trinitätslehre* (1964); Luscombe, *School of Peter Abelard* (1969); ODNB (Rampolla).

ROBERT ORFORD (Erfort, Oxford) b. *ca.* 1250; d. after 1293. Early English Thomist and Dominican friar. Bachelor of the *Sentences* at Oxford in 1284; became master of theology at Oxford *ca.* 1289 and was still regent in 1293. His extant works all defend Thomism as he understands it and include his *Correctorium corruptorii "Sciendum"* [*ca.* 1283] (ed. Glorieux 1956), in response to William de la Mare's anti-Thomistic treatise; *Contra dicta Fr. Aegidii Romani* [1288/92] (ed. Vella 1968); and *Contra dicta Magistri Henrici de Gandavo* [1289/93] (unedited). Also the likely author of the pseudo-Aquinian *De natura materiae* (ed. Spiazzi 1954, etc.).

Secondary sources. Friedman, "Dominican Quodlibetal Literature" (2007); Iribarren, "Responsio" (2001); Jordan, "Controversy of the Correctoria" (1982); Kelley, "Two Early English Thomists" (1981), "Attack on Giles of Rome" (1987); Kaeppeli; ODNB (Gaine); Roensch.

ROBERT OF PARIS *fl.* 1160s. Parisian arts master. Author of the grammar treatise *Summa "Breve sit"* [1160s] (ed. Kneepkens, in *Het Iudicium Constructionis* 1987).

ROBERT WALSINGHAM b. prob. Norfolk; d. after 1312. Carmelite theologian. Studied at Oxford by at least 1280; became master of theology in 1312. Main influence is Henry of Ghent. His work survives in two *Quodlibeta* [1312–13], and in excerpts from his earlier *Quaestiones ordinariae* and *Sentences* commentary (all unedited).

Secondary sources. Goris, "La critique" (2000); Schabel, "Carmelite Quodlibeta" (2007); Schabel and Friedman, "Trinitarian Theology III" (2003); ODNB (Brown).

ROBERTUS ANGLICUS. Many thirteenth-century texts are attributed to a "Robert the Englishman," and it is often difficult to distinguish the different authors. One such Robert is the author of the *Sophistria* [1260/70] (ed. Grondeux and Rosier-Catach 2006), a collection of grammatical sophisms, who is perhaps also the author of a *Lectura super Priscianum minorem* (unedited). An unedited mid-thirteenth-century commentary on the *Ars vetus* is associated with a different Robertus Anglicus (see Piché, *Le problème des universaux* 2005), and two commentaries on Peter of Spain [1250/70] (ed. Ebbesen and Rosier-Catach, in "Two Roberts" 1997) are associated with still two more men by this name, although it is not clear that either of the two is in fact English (see Ebbesen and Rosier-Catach, "Robertus Anglicus" 2000). There is also an astronomer by this name [*fl. ca.* 1271] (see ODNB [Pedersen]), and moreover Robert Kilwardy is often so-called (see Lewry, "Robertus Anglicus" 1982).

ROGER BACON b. Somerset, *ca.* 1214/20; d. England, *ca.* 1292. Natural philosopher. Educated at Oxford; master of arts at Paris by 1245 (and perhaps from 1237). Subsequently taught on the arts faculty for various periods at both universities, although even the rough chronology is unclear. Joined the Franciscan order *ca.* 1257. His last years, from

1270 or at least from 1280, were spent in England. His works were condemned by the Franciscans in 1278 for reasons that are unclear, although his notoriously difficult and arrogant personality was presumably a factor. On some accounts, he was subsequently imprisoned, but the evidence is thin.

His works are many and wide-ranging. The earliest relate to his teaching in the arts, including two sets of questions on both the *Physics* and *Metaphysics*; questions on the *Liber de causis* (all ed. Steele *et al.* 1909–40); and various treatises on logic and grammar, including the *Summulae dialectices* [*ca.* 1250] (ed. de Libera 1986–7), *Summa grammatica* and *Summa de sophismatibus et distinctionibus* [1240s] (both ed. Steele *et al.* 1909–40). His work from the 1260s takes a more original turn, focusing more on an empirically grounded natural philosophy, and stressing the importance of mathematics and the study of languages. His *Perspectiva* (ed. and tr. Lindberg 1996) and *De multiplicatione specierum* (ed. and tr. Lindberg 1983) [both *ca.* 1266] initiate the quantitative study of optics in the Latin tradition. In 1267 he sent Pope Clement IV his best-known work, the *Opus Maius* (ed. Bridges 1897–1900/1964 [pt. III ed. Fredborg *et al.* 1978]; tr. Burke 1928), soon followed by a summary, the *Opus minus*, and a further retreatment, the *Opus tertium* (both ed. Brewer 1859/1965). These were regarded as preliminary studies, however, for an even larger work, never completed, of which only two sections survive: the *Communia naturalium* and the *Communia mathematica* [*ca.* 1270] (both ed. Steele *et al.* 1909–40). Also from this period is an introduction to Bacon's views, his *Compendium studii philosophiae* (ed. Brewer 1859/1965), as well as Greek and Hebrew grammars (ed. Nolan and Hirsch 1902). Other notable works include writings on moral philosophy (ed. Massa 1953) and an incomplete *Compendium studii theologiae* [1292] (ed. and tr. Mahoney 1988). His writings on universals have also been translated (tr. Maloney 1989).

Secondary sources. Hackett and Mahoney, "Bibliography" (1987); Hackett (ed.), *Bacon and the Sciences* (1997), *Bacon and Aristotelianism* (1997); Clegg, *First Scientist* (2003); Crowley, *Problem of the Soul* (1950); Little, *Essays* (1914); BCPMA (Hackett); DMA (de Libera); DSB (Crombie and North); FA; ODNB (Molland); REP (Sinkler); SEP (Hackett).

ROGER MARSTON b. England, *ca.* 1235; d. Norwich, 1303. Franciscan theologian in the Augustinian tradition. Studied theology in Paris under John Pecham *ca.* 1269–71. Subsequently incepted as master at Cambridge *ca.* 1276, where he lectured on the *Sentences* (now lost), and at Oxford *ca.* 1281. Provincial minister of the English Franciscans in 1292–8. Only extant works are three sets of disputed questions (ed. van de Woestyne *et al.* 1932) and four *Quodlibeta* (ed. Etzkorn and Brady 1994) [both 1282–4].

Secondary sources. Belmond, "Théorie de la connaissance" (1934); Etzkorn, "Grades of the Form" (1962); Hissette, "Hylemorphisme universel?" (1972); Gilson, "Augustinisme avicennisant" (1933); BCPMA (Wilson); DMA (Lambert); FA; ODNB (Brown); REP (Etzkorn).

ROGER NOTTINGHAM d. after 1358. Franciscan theologian. Bachelor of theology by 1343 at the Oxford convent. Author of a brief collection of *Insolubilia* [1343] (ed. Synan 1964) and an *Introitus ad Sententias* (ed. Synan 1963).

Secondary sources. Spade, *Mediaeval Liar* (1975); Emden; FA.

ROGER ROSETH (Rosetus) *fl.* 1330s. English Franciscan theologian. Only surviving work is his lectures on the *Sentences* at Oxford [mid-1330s] (qq. 3–5 ed. Hallamaa 2005), a witness to the influence of the Oxford Calculators on English theology.

Secondary sources. Hallamaa, "On the Borderline" (2000), "Defending Common Rationality" (2003); Murdoch, "From Social to Intellectual Factors" (1975); Spade, *Mediaeval Liar* (1975); Tachau, "*Species in medio*" (1982).

ROGER SWINESHEAD (Swyneshed, Suisseth) b. Swineshead (Lincolnshire); d. *ca.* 1365. Natural philosopher in the Mertonian tradition. Educated at Oxford. Went on to study theology and became a Benedictine monk at Glastonbury. Extant are two logical treatises from the early 1330s – his *Insolubilia* (ed. Spade 1979) and *Obligationes* (ed. Spade 1977) – and a mathematical treatment of motion, *De motibus naturalibus* (unedited). To be distinguished from his younger contemporary and perhaps brother, Richard Swineshead.

Secondary sources. Weisheipl, "Roger Swyneshed" (1964); Sylla, "Mathematical Physics" (1987); ODNB (Molland).

ROGER WHELPDALE d. London, 1423. Oxford philosopher, a proponent of metaphysical realism. Fellow of Balliol College before 1400, and subsequently fellow and provost from 1404 to 1420 of Queen's College. Elected bishop of Carlisle in 1419. Extant works include commentaries on Porphyry and *Posterior Analytics* I (both unedited), and a treatise *De universalibus* (part. ed. Conti 1990).

Secondary sources. Emden; Lohr; ODNB (Summerson).

ROLAND OF BOLOGNA *fl.* 1140s–50s. Legal scholar, theologian. A student of Gratian at Bologna, and subsequently a distinguished professor there. Author of one of the earliest commentaries on Gratian's *Decretum*, known as the *Stroma* (ed. Thaner 1874/1962), although it is perhaps a composite of two different works by Roland (see Kuttner, "Did Rolandus Write?" 1994). Also the author of a theological *summa* or *Sententiae* (ed. Gietl 1891/1969). The Roland who authored these works is not, as formerly thought, Roland Bandinelli (Pope Alexander III).

Secondary sources. Noonan, "Who was Rolandus?" (1977); Liotta and Tofanni (eds.), *Miscellanea* (1986).

ROLAND OF CREMONA b. 1178; d. Bologna, 1259. Early Dominican theologian. Master of arts in Bologna. Joined the Dominicans there in 1219, subsequently studying theology. Became the first Dominican theology master in Paris in 1229–30. Lecturer in theology at Toulouse in 1230–33, then returned to Bologna, where he continued to preach and teach until his death. Principal work is his *Summa* of theology [1228] (prologue ed. Cremascoli, in "La 'Summa'" 1975; Bk. III ed. Cortesi 1962).

Secondary sources. Brungs, "Definition der Tugend" (1998); Filthaut, *Roland von Cremona* (1936); Glorieux; Kaeppeli.

ROSCELIN OF COMPIÈGNE b. Brittany, *ca.* 1050; d. after 1120. Controversial logician and theologian. Taught in France, where he was a leading proponent of nominalism. None of his works survive; our information comes entirely from his critics, particularly

Anselm of Canterbury and Peter Abaelard (his former student). In 1092 he was charged with heresy for his theory of the Trinity, which he was forced to renounce.

Secondary sources. Kluge, "Problem of Universals" (1976); Meier, *Macht und Wahnwitz* (1974); Mews, "Nominalism and Theology" (1992); Picavet, *Roscelin* (1911); Tweedale, "Logic" (1988); REP (Tweedale).

RUFINUS *fl.* 1150–91. Canon lawyer and theologian. Studied at Bologna, perhaps under Gratian, becoming master *ca.* 1150. Perhaps elected bishop of Assisi *ca.* 1164, and archbishop of Sorrento 1180/6. His most influential work was his *Summa decretorum* [*ca.* 1164] (ed. Singer 1902/1963), the first full-length commentary on Gratian's *Decretum*. Also extant is his treatise on peace, *De bono pacis* [*ca.* 1180–6] (ed. Brunacci and Catanzaro 1986).

Secondary sources. Gouron, "Sur les sources" (1986); CHLMP.

RUPERT OF DEUTZ (Robert) b. Liège, *ca.* 1075; d. Deutz, 1129. Theologian and Benedictine monk. Entered the Abbey of St. Lawrence (Liège) as a boy. Ecclesiastical conflict led him into a period of exile in 1092–6, and further theological conflict, eventually including charges of heresy, forced him to leave permanently. Eventually he settled in the Cologne area, becoming abbot of the Deutz monastery from 1120. A prolific and widely known author during the first half of the twelfth century, Rupert's principal theoretical works are *De Sancta Trinitate et operibus eius* [1117] (ed. Haacke 1971–2); *De voluntate Dei* [1113/14]; *De omnipotentia Dei* [1117] (both PL 170); a commentary on the Gospel of John [1115–16] (ed. Haacke 1969); *De victoria Verbi Dei* [1123/4] (ed. Haacke 1970); and a commentary on the Song of Songs [1126] (ed. Deutz and Deutz 2005).

Secondary sources. Van Engen, *Rupert of Deutz* (1983); Beitz, *Rupert von Deutz* (1930); DMA (Bouhot).

SAADIAH GAON (Saadya ben Joseph; Sa'id ibn Yusuf al-Fayyūmi) b. Fayyoum (upper Egypt), 882; d. Baghdad, 942. Rabbi, poet, exegete; the first systematic Jewish philosopher. Left Egypt for Palestine at a young age, and quickly became an influential scholar, becoming involved in a controversial reform of the Jewish calendar in 922. Appointed head (*gaon*) of the Jewish academy of Sura (Babylon) in 928, a prestigious position that he held on and off, amidst much conflict, for the remainder of his life. Earliest major work is a Hebrew–Arabic lexicon [913, later enlarged] (ed. Allony 1969). His most important philosophical work is the *Amānāt wa-al-i'tiqādāt* (*The Book of Beliefs and Convictions*), written in Arabic but commonly known by its Hebrew title, *Sefer Emunot ve-De'ot* [933] (ed. Landauer 1880, Kafih 1970; tr. Rosenblatt 1948; part. tr. Altmann in Lewy *et al.*, *Three Jewish Philosophers* 1985; part. tr. Manekin, in *Writings* 2007). Also important is his commentary on the Hebrew esoteric work *Sefer Yeẓira* (*Book of Creation*), the *Tafsīr kitāb al-mabādī* (ed. and [Fr] tr. Lambert 1891). Saadiah translated the Bible into Arabic, and wrote many biblical commentaries, which are often of considerable philosophical interest (part. ed. Derenbourh *et al.* 1893–9), most notably that on Job (tr. Goodman 1988).

Secondary sources. Efros, *Studies* (1974); Finkelstein (ed.), *Rab Saadia Gaon* (1944); Goodman, "Interpretive Technique" (1990); Katz (ed.), *Saadiah Gaon* (1980); Malter, *Life*

and Works (1921/1969); Rosenthal (ed.), *Saadya Studies* (1943/1980); Stroumsa, "Saadya and Jewish Kalam" (2003); Vajda, "Théorie de la connassance" (1967); BCPMA (Pessin); HIP (Goodman); REP (Goodman); SEP (Pessin).

AL-SAMARQANDĪ (Shams al-Dīn) b. Samarkand (Uzbekistan), *ca.* 1250; d. *ca.* 1303. Astronomer, mathematician, logician, and theologian. Almost nothing is known of his life. Best known for his *Risāla fī ādāb al-baḥth* [*ca.* 1276] (ed. al-Manṣūrī 1934), which offers a general theory of dialectical disputation applicable in any scholarly domain.

Secondary sources. Miller, "Islamic Disputation Theory" (1984); EI (Miller).

SAMUEL IBN TIBBON b. Lunel (Provence), *ca.* 1165; d. 1232. Translator, philosopher, exegete. Educated by his scholarly father, Judah ibn Tibbon. Traveled widely as an adult, both for business and for scholarly purposes, eventually settling in Marseilles. Along with those of his father, his son Moses, and his son-in-law Jacob Anatoli, his translations into Hebrew created both a philosophical library and a technical terminology in Hebrew. Samuel's main influence was Maimonides; among other works, he translated the commentary on Avot from the Mishnah (*Sefer ha-Maor*) [1202] (ed. Rabinowitz 1948; tr. David 1968); and the *Guide of the Perplexed* (*Moreh ha-Nevukhim*) [1204] (ed. Even-Shemuel 1987). He also translated Aristotle's *Meteorology* [1210] (ed. Fontaine 1995), and works by Averroes, Avicenna, and others. As a complement to his translation activity, he produced the first Hebrew philosophical lexicon, the *Perush ha-Millot ha-Zarot* (ed. with *Guide*). His two main original treatises are a commentary on Ecclesiastes [1213/21] (ed. and tr. Robinson 2007) and the treatise *Ma'amar Yiqqavu ha-Mayim* (ed. Bisliches 1837), a discussion of Genesis 1: 9, "Let the waters be gathered."

Secondary sources. Freudenthal, "Sciences" (1993); Ravitzky, "Esoteric Character" (1981); Robinson, "Commentary on Ecclesiastes" (2000), "Ibn Tibbon Family" (2005); SEP (Robinson).

AL-SARAKHSĪ (Aḥmad ibn al-Ṭayyib) b. *ca.* 835; d. 899. Leading disciple of al-Kindī. An educator of the future caliph, he came to be a member of the inner circle of the court, but eventually was thrown in prison in 896, where he died. Although a productive scholar, and an important advocate of Greek learning, only fragments of his work survive.

Secondary sources. Rosenthal, *As-Sarakhsī* (1943); EI (Rosenthal).

SEDULIUS SCOTTUS b. prob. Leinster (Ireland); *fl.* 840s–860s. Poet, grammarian, biblical commentator. Little is known about his life, other than that he describes himself as a priest, and that he lived in France, mainly in Liège. His extant grammatical works are commentaries on Eutyches, Priscian, and Donatus (ed. Löfstedt 1977). His *De rectoribus Christianis* (ed. Hellmann 1906) is a mirror for princes, in alternating prose and verse. Also extant are a large set of poems (ed. Meyers 1991), and commentaries on Paul's epistles (ed. Frede and Stanjek 1996), on Matthew (ed. Löfstedt 1989), and an *Explanationes in canones et argumenta evangeliorum* (PL 103). A florilegium of excerpts from classical authors, the *Collectaneum miscellaneum* (ed. Simpson 1988) also survives.

Secondary sources. Düchting, *Sedulius Scottus* (1968); Marenbon, *Circle of Alcuin* (1981); ODNB (Davies).

SERVAIS OF MOUNT ST. ELOI (Gervais) d. 1313/14. Theologian. A canon regular at the monastery of Mount St. Eloi, he came to Paris to study theology and became regent master by 1282. Returning to his monastery, he was elected abbot in 1291, a position he held until his death. Aside from various sermons, his extant works are a series of quodlibetal questions [1280s] (unedited), focused largely on moral and canon law issues.

Secondary sources. Glorieux, *La littérature quodlibétique* (1925–35); Hissette, "Une question quodlibétique" (1982); Schabel, *Theological Quodlibeta* (2006–7); Sullivan, "*Quodlibeta*" (2007).

SERVASANTO OF FAENZA b. near Faenza, 1220/30; d. Florence, *ca.* 1300. Preacher and moral theologian. Joined the Franciscan order at Bologna, where he probably studied. Seems not to have done advanced work in theology at the university. As a member of the Florence convent, he was very active as a preacher, and many sermons have been preserved. His extant treatises, all collections of material intended as a guide for preachers, are the *Liber de exemplis naturalibus* and *Liber de virtutibus et vitiis* (both unedited), and the *Summa de poenitentia* or *Antidotarium animae* (ed. 1485).

Secondary sources. Casagrande, "Predicare la penitenza" (1996); Grabmann, "*Liber de exemplis naturalibus*" (1920); Oliger, "Liber de virtutibus et vitiis" (1924); FA.

AL-SHĀFIʿĪ (Muḥammad ibn Idrīs) b. prob. Gaza, 767; d. Cairo, 819. Leading religious scholar, founder of the Shāfiʿite legal school. Raised in Mecca. Studied in Medina and Baghdad before moving to Egypt where he developed a dramatically new legal system. His principal work is *Al-Risāla fī al-uṣūl* (*A Treatise on Legal Theory*) (ed. Shākir 1979, etc.; tr. Khadduri 1987), a foundational treatise on the science of jurisprudence.

Secondary sources. Burton, *Sources of Islamic Law* (1990); Hallaq, *Origins and Evolution of Islamic Law* (2005); Schacht, *Origins of Jurisprudence* (1967); BEIP (Kiliç); EI (Chaumont).

AL-SHAHRASTĀNĪ (Abū al-Fatḥ Muḥammad ibn ʿAbd al-Karīm) b. Shahristan (Khurasan), *ca.* 1086; d. Shahristan, 1153. Theologian and historian, probably Ismāʿīlī. Studied in Nishapur. Journeyed to Mecca in 1117, and subsequently taught at al-Niẓāmiyya in Baghdad. His last years were spent as a confidant of the Seljuk ruler of Khurasan. Among his many works, the best known is a monumental study of comparative religion, the *Kitāb al-milal wa-al-niḥal* (*Book of Religions and Sects*) [1127/8] (ed. Badrān 1951; [Fr] tr. Gimaret and Monnot 1986–93; part. tr. Lawrence 1976, Kazi and Flynn 1983). Also extant is a theological *summa*, the *Nihāyat al-aqdām fī ʿilm al-kalām* (*Furthest Steps in the Science of Theology*) [after 1128] (ed. and tr. Guillaume 1934); a critique of Avicenna's metaphysics, the *Muṣāraʿat al-falāsifa* (*Struggling with the Philosopher*) (ed. and tr. Madelung and Mayer 2001); a brief treatise on atoms (ed. with the *Nihāyat*); and a Persian speech on creation (ed. and [Fr] tr. Steigerwald 1998).

Secondary sources. Monnot, "Controverses théologiques" (1995); Daftary, *Ismāʿīlīs* (1990); BEIP (İskenderoğlu); EI (Monnot).

SHEM TOV IBN FALAQUERA b. northern Spain, 1223/8; d. after 1290. Hebrew translator, scholar, and poet. Urged the harmony of faith and reason, and defended the importance

of philosophy. His many extant works include a commentary on Maimonides's *Guide* [1280] (ed. Shiffman 1990); a book defending the study of Maimonides, *Iggeret ha-Vikuah* (*Epistle of the Debate*) (ed. Jellinek 1875/1970; tr. Harvey 1987); a long philosophical encyclopedia, *Deʿot ha-Philosofim* (*The Opinions of the Philosophers*) (unedited); the *Sefer ha-Mevaqqesh* (*Book of the Seeker*) [1263] (ed. Tamah 1778/1970; tr. Levine 1976); and various treatises on ethics and psychology (part. ed. and tr. Jospe, in *Torah and Sophia* 1988).

Secondary sources. REP (Jospe); Sirat.

SĪBAWAYHI b. Shiraz, *ca.* 760; d. *ca.* 796. Pioneering figure of Arabic grammar. Little is known of his life beyond his one book, the *Kitāb Sībawayhi* (ed. Hārūn 1966–77, etc.; tr. [German] Jahn 1895–1900/1969), which is the foundational text for Islamic grammar and the subject of many later commentaries.

Secondary sources. Carter, *Sibawayhi* (2004); EI (Carter).

SIGER OF BRABANT b. Low Countries, *ca.* 1240; d. Orvieto, 1282/4. Controversial arts master, a leading figure among the so-called Latin Averroists. Initially studied at Liège, then Paris in 1255/7. Master of arts by 1266, his views were condemned in 1270 and again in 1277, though he himself was never convicted of heresy, and he modified his views over time. Left Paris for Liège by the end of 1276; spent his final years in Italy, where he was allegedly killed by his demented secretary. His extant writings range widely over the arts curriculum. In logic, we have several *sophismata*, a set of *Quaestiones logicales*, and a treatise on *Impossibilia* (all ed. Bazán 1974). There are commentaries on *De anima* III [*ca.* 1265] (ed. Bazán 1972); the *De generatione* (ed. Bazán 1974); *Physics* (ed. Zimmermann, in Bazán 1974); and *Metaphysics* [*ca.* 1273/5] (in four mss., representing four distinct *reportationes*, ed. Dunphy 1981, Maurer 1983). Also extant is a commentary on the *Liber de causis* [1274/6] (ed. Marlasca 1972) and treatises *De necessitate et contingentia causarum* (ed. Duin, *La doctrine de la providence* 1954); *De aeternitate mundi* [*ca.* 1272] (ed. Bazán 1972; tr. Vollert *et al.* 1964); and *De anima intellectiva* [*ca.* 1271] (ed. Bazán 1972).

Secondary sources. Van Steenberghen, *Maître Siger de Brabant* (1977), *La philosophie au XIIIe siècle* (1991); Bianchi, *Il vescovo e i filosofi* (1990); Dod, *Life and Thought* (1998); Gauthier, "Notes" (1983–4); Putallaz, *Insolente liberté* (1995); Putallaz and Imbach, *Profession, philosophe* (1997); Ryan, "Man's Free Will" (1983); BCPMA (Bazán); REP (Wippel).

SIGER OF COURTRAI b. *ca.* 1280; d. 1341. Logician and grammarian. Studied in Paris *ca.* 1300. Dean of the Church of Our Lady at Courtrai (Flanders) from *ca.* 1305 until *ca.* 1330. A leading proponent of modism. Extant works are a *Summa modorum significandi*; *Sophismata* (both ed. Wallerand and Pinborg 1977); a treatise *Ars priorum* and fragments on fallacies (both ed. Wallerand 1913); and a commentary on the *De interpretatione* (ed. Verhaak 1964).

Secondary sources. Bursill-Hall, *Speculative Grammars* (1971); Marmo, *Semiotica e linguaggio* (1994); Rosier-Catach, *La grammaire spéculative* (1983); CHLMP.

AL-SIJISTĀNĪ, Abū Sulaymān (al-Manṭiqī) b. Sistan (southeast Iran), *ca.* 912; d. *ca.* 985. Leading advocate of philosophy in tenth-century Baghdad. After spending his youth in

Sistan, he moved to Baghdad as a young man, joining the circle of Yaḥyā ibn ʿAdī and Abū Bishr Mattā. He came to assemble an important circle of friends and followers, and his influence as a teacher is more important than his written works, only parts of which have survived. Most significant of these is *Ṣiwān al-ḥikma* (*Vessel of Wisdom*) (ed. Badawi 1974), a collection of sayings from Greek and Islamic philosophers that survives only in part, and perhaps is only partly the work of al-Sijistānī. A few brief treatises (ed. Badawi 1974) are also extant, including *On the Proper Perfection of the Human Species* (tr. McGinnis and Reiman, in *Classical Arabic Philosophy* 2007).

Secondary sources. Kraemer, *Philosophy in the Renaissance* (1986); BEIP (Kalin); EI (Stern); REP (Atiyeh).

AL-SIJISTĀNĪ, Abū Yaʿqūb (al-Sijzī) *fl.* tenth century. Leading Ismāʿīlī theologian. Said to have been executed toward the end of the tenth century. His two principal works are the *Kitāb al-yanābīʾ* (*Book of Wellsprings*) (ed. and part. [Fr] tr. Corbin 1961; tr. Walker 1994), and the *Kashf al-maḥjūb* (*Unveiling of the Hidden*), which is extant only in a Persian translation (ed. Corbin 1949; tr. [Fr] Corbin 1988).

Secondary sources. Daftary, *Ismāʿīlīs* (1990); Walker, *Early Philosophical Shiism* (1993); BEIP (Aminrazavi); EI (Stern).

SIMEON DURAN (ben Zemaḥ) b. Majorca, 1361; d. 1444. Theologian and expert on Jewish law (*halakha*). Forced by anti-Jewish violence in 1391 to flee Spain for North Africa. Most important works pertaining to philosophy are a commentary on Job, *Ohev Mishpat* (*Lover of Justice*) (ed. 1590), with an extensive discussion of providence, and a commentary on Avot, *Magen Avot* (ed. 1785/1969).

Secondary sources. Pfeffer, *Providence in the Book of Job* (2005); REP (Kellner); Sirat.

SIMON OF DACIA *fl.* 1260s. Modist grammarian, seemingly a member of the arts faculty at Paris. Author of the *Domus gramatice* [1255/70] and a set of questions on Priscian minor [1260/70] (both ed. Otto 1963). A set of *Quaestiones super modos significandi* is attested but seems to have been lost.

SIMON OF FAVERSHAM (Simon Anglicus) b. Kent, prob. 1240s; d. Avignon, 1306. Philosopher and theologian, author of important Aristotelian commentaries. Probably studied at Oxford. Subsequently seems to have lectured on the arts at Paris in the late 1270s and early 1280s before returning to teach theology at Oxford, where he is known to have been present in 1301. Chancellor of Oxford in 1304–6. His extant writings cover much of the Aristotelian corpus, sometimes in multiple versions, including questions on the *Isagoge*, the *Categories*, the *De interpretatione* (all ed. Mazzarella 1957), the *Sophistical Refutations* [*ca.* 1280] (ed. Ebbesen *et al.* 1984), *De anima* III (part. ed. Sharp 1934), the *Physics*, and the *Metaphysics* (both unedited). There are commentaries on Priscian and Peter of Spain's *Summulae logicales* (both unedited). A sophism is also extant (ed. Yokoyama, in "Universale est intentio" 1969).

Secondary sources. De Rijk, "Genuine Text II" (1968); Grabmann, *Aristoteleskommentare* (1933); Longeway, "Questions on the 'Posterior Analytics'" (1977); BCPMA (Longeway); Lohr; ODNB (Brown).

SIMON OF HINTON *fl.* 1248–62. Oxford Dominican theologian. Studied theology at Oxford in the 1240s, probably becoming regent master after Richard Fishacre, in 1248. Subsequently served as provincial minister of the English province in 1254–61, when he was removed from the position and sent to teach in Germany for a year before returning to England. Extant works include various questions from his theological study at Oxford, various biblical commentaries, and, most prominently, his *Summa iuniorum* [prob. after 1261] (ed. 1706), a compendium of essential Christian doctrines and morals.

Secondary sources. BBK (Senner); Kaeppeli; ODNB (Tugwell).

SIMON OF TOURNAI b. Tournai (Belgium), *ca.* 1130; d. 1201. Theologian, grammarian, influential teacher. Received his early education in Tournai. Subsequently studied in the cathedral school in Paris from before 1155, taking over as head in 1165. Appointed canon at Tournai, but nevertheless remained in Paris, going on to serve as master of the school at Mount St. Geneviève and continuing to teach into the new century. Although probably not a student of Gilbert of Poitiers, his work bears Gilbert's strong influence, and also that of the newly available Aristotle. His strong, provocatively worded views made him both popular and controversial. His two principal works are his theological *Sentences* or *Summa*, or *Institutiones in sacra pagina* [1160–5?] (part. ed. Schmaus 1932, Heinzmann 1967), and a large collection of theological *Disputationes* [after 1160] (ed. Warichez 1932). Only one sermon survives, containing a commentary on the Athanasian creed (ed. Häring 1976).

Secondary sources. Häring, "Simon of Tournai" (1965); ODNB (Luscombe).

SINIBALDO FIESCHI, *see* Innocent IV.

SOLOMON IBN GABIROL (Avicebron, Avencebrol) b. Malaga, 1021/2; d. Valencia, prob. 1057/8. Jewish Neoplatonic philosopher and poet. Orphaned at a young age, grew up in Saragossa, then lived in Granada and Valencia. Of the many philosophical works he claims to have written, only two survive. The *Mekor Ḥayyim* (*Fountain of Life*), composed in Arabic, is extant only in a twelfth-century Latin translation, the *Fons vitae* (ed. Bauemker 1892–5; part. tr. Manekin, *Writings* 2007), and in Hebrew fragments (ed. Munk 1857–9/1927). It was extremely influential on medieval Christian thought, particularly for its support of universal hylomorphism. The *Tikkun Middot ha-Nefesh* (*On the Improvement of Moral Qualities*) [1045] (ed. and tr. Wise 1909/1966), also composed in Arabic, is a treatise on practical ethics. There is also a large body of Hebrew poetry, much of which is striking for its wholly secular character, as elegies, love poems, etc. (part. tr. Cole 2001). Other poetry is more philosophical (part. tr. Davidson 1923/1973), most significantly the *Keter Malkhut* (*The Kingly Crown*) (ed. and tr. Slavitt 1998, etc.), a series of forty songs devoted to metaphysical and cosmological themes, which forms the text of the Yom Kippur service. The *Mibhar Peninim* (*Choice of Pearls*) [*ca.* 1045] (tr. Cohen 1925), a collection of proverbs and maxims, is perhaps also the work of Ibn Gabirol.

Secondary sources. Brunner, *Platonisme et Aristotelisme* (1965), *Métaphysique* (1997); Goodman (ed.), *Neoplatonism* 1992; Pessin, *Universal Hylomorphism* (2000), "Jewish

Neoplatonism" (2003); Loewe, *Ibn Gabirol* (1989); Rudavsky, "Matter and Evil" (1978); BCPMA (Rudavsky); HIP (Lancaster); HJP (Rudavsky); REP (Frank).

STEPHEN LANGTON b. Langton (Lincolnshire), *ca.* 1150; d. 1228. Theologian, archbishop of Canterbury. Studied in Paris, perhaps under Peter the Chanter, becoming an influential master of theology there from the 1180s to 1206. Elected cardinal and archbishop of Canterbury in 1206, from which point he was immersed in a long and stormy set of political conflicts. Many works are extant and largely unedited, especially sermons (part. ed. Roberts 1980) and commentaries on nearly the whole of the Bible (on Chronicles, ed. Saltman 1978). A commentary on Lombard's *Sentences* is extant (ed. Landgraf 1952), as is a treatise *De persona* (ed. Bieniak 2006). His writings are assumed to date from his years in Paris, although he may have made later revisions.

Secondary sources. Bejczy, "Cardinal Virtues" (2006); Powicke, *Stephen Langton* (1928/1965); Roberts, *Stephanus de Lingua Tonante* (1968); ODNB (Holdsworth).

STEPHEN OF RIETI (de Reate) *fl.* 1340s. Dominican philosopher, advocate of metaphysical realism. Studied the arts at Rome and Florence in 1331–3. Lectured at various Dominican *studia* in central Italy, where he also studied theology alongside Francis of Prato. Extant works include a *Tractatus de universalibus* (ed. Amerini 2003), a commentary on the *Ars vetus* [*ca.* 1343] (part. ed. with the *De univ.*), and treatises *De secundis intentionibus* and *De ente reali et rationis* (both ed. de Rijk, in Gerald of Odo, *Opera philosophica* 1997–).

Secondary sources. Amerini, "What is Real" (2005); Kaeppeli; Lohr.

STEPHEN OF TOURNAI (Tornacensis) b. Orléans, 1128; d. 1203. Canon lawyer. Studied first in his native city, then took up law in Bologna beginning *ca.* 1160. Appointed abbot of St. Euverte in Orléans in 1167, and then abbot of Mount St. Geneviève in Paris in 1177. Bishop of Tournai from 1192. His influential *Summa decretorum* [1165/6] (part. ed. Schulte 1891) became a basic text for canon lawyers north of the Alps. Also extant are collections of letters (ed. Desilve 1893; PL 211) and sermons (PL 211).

Secondary sources. Kalb, *Studien* (1983); Weigand, "Studien" (1986); Pennington.

AL-SUHRAWARDĪ (Abū Ḥafṣ ʿUmar) b. Suhraward (northwest Iran), 1145; d. Baghdad, 1234. Important Sufi theologian. Came to Baghdad as a youth, where he studied with his uncle Abū al-Najīb al-Suhrawardī (d. 1168), himself a prominent Sufi. (In all, the *nisba* 'al-Suhrawardī' refers to three prominent, contemporary theologians.) A famed preacher, his disciples would found the Sufi order of Suhrawardiyya. Principal work is the ʿAwārif al-maʿārif (*Advantages of Knowledge*) [by 1215/16] (ed. 1983; tr. [German] Gramlich 1978), a handbook on Sufi practices that remains influential today. A fourteenth-century Persian translation/elaboration of this work is available in English (tr. Clarke 1891/1980).

Secondary sources. BEIP (Leaman); EI (Hartmann).

AL-SUHRAWARDĪ (Shihāb al-Dīn Yaḥyā) b. Suhraward (northwest Iran) 1154; d. Aleppo (northwest Syria), 1191. Founder of the Illuminationist school of Islamic thought. Studied in Maraghah and then Isfahan. After journeying through Anatolia, he settled in

Aleppo in 1183, where he became a prominent scholar and developed close ties with the rulers. For reasons that are unclear, but that seemingly involve both religious and political factors, he was executed at the age of thirty-seven. His four major philosophical works, in Arabic, are *Al-Talwīḥāt* (*Intimations*) (ed. with Ibn Kammūna's commentary, Ziai and Alwishah 2003); *Al-Muqāwamāt* (*Oppositions*); *Al-Mashāriʿ wa-al-muṭāraḥāt* (*Pathways and Conversations*); and, above all, *Ḥikmat al-ishrāq* (*Philosophy of Illumination*) [1186] (ed. and tr. Walbridge and Ziai 1999). These, and other works are edited in a three-volume edition (ed. Corbin and Nasr 1976–7). Many of his writings in Persian have been translated (tr. Thackston 1982; tr. [Fr] Corbin 1976, with very useful annotations).

Secondary sources. Aminrazavi, *Suhrawardi* (1997); Walbridge, "Suhrawardī and Illuminationism" (2005); Ziai, *Knowledge and Illumination* (1990); BEIP (Leaman); EI (Ziai); HIP (Ziai); REP (Cooper); SEP (Marcotte).

AL-TAFTĀZĀNĪ, Saʿd al-Dīn (al-ʿAllāma) b. Taftazan (Khurasan), 1322; d. Samarkand, 1390. Leading Ashʿarite theologian and wide-ranging scholar. His education is uncertain, but it left him a gifted scholar from an early age. In his subsequent career he traveled widely through central Asia. Of his extant work, his theology is best known, especially his commentaries on central texts, as on the creed of Najm al-Dīn al-Nasafī [1367] (ed. Salāma 1974; tr. Elder 1950/1980), and his *Sharh al-maqāṣid* (*Explanation of Purposes*) (ed. Umayra 1984–9).

Secondary sources. BEIP (İskenderoğlu); EI.

AL-TAWḤĪDĪ (Abū Ḥayyān) b. *ca.* 930; d. Shiraz, 1023. Persian scholar whose accounts of Baghdad intellectual circles provide important information on the views of his contemporaries. Most of his life was spent in Baghdad, where he arrived before 959, and Rayy, from 968, at the court of the Buyid princes. His *Al-Imtāʿ wa-al-muʾānasa* (*Enjoyment and Conviviality*) [980–5] (ed. Amīn and Zayn 1953) records a series of thirty-seven conversations held at the Baghdad court. His main philosophical work is the Neoplatonic *Al-Muqābasāt* (*Borrowed Lights*) (ed. Husayn 1970).

Secondary sources. Bergé, *Pour un humanisme* (1979); BEIP (Akbaş); EI (Stern); REP (Genequand).

THĀBIT IBN QURRA b. Harran (southeast Turkey), *ca.* 830; d. Baghdad, 901. Mathematician, astronomer, philosopher, and translator. Discovered while working as a money changer in Harran, Thābit was brought to Baghdad to study in the Banū Mūsā circle of mathematicians. Many astronomical treatises are extant, in Arabic and in Latin translation (ed. and [Fr] tr. Morelon 1987; ed. Carmody 1960). His translations from Greek into Arabic include Ptolemy's *Almagest* and works by Apollonius and Archimedes.

Secondary sources. Rashed, *Mathématiques infinitésimales* (1996); Sabra, "Infinite" (1997); Sezgin *et al.* (eds.), *Texts and Studies* (1997); BEIP (El-Bizri); DSB (Rosenfeld and Grigorian); EI (Rashed and Morelon).

THADDEUS OF PARMA d. 1341. Philosopher. Perhaps studied at Paris. Master of arts at Bologna from at least 1318 and also at Siena in 1321–5. Important source for the transmission of Latin Averroism from Paris to Italy. Extant works include questions on

the *De anima* [*ca.* 1320] (Bk. III ed. Vanni Rovighi 1951), which are simply a summary of John of Jandun's questions; a few questions on the *Metaphysics* (unedited), a question on necessity (ed. Cheneval, in "*Utrum omnia*" 1988); and an *Expositio super theoricam planetarum* [*ca.* 1318] (unedited).

Secondary sources. Ermatinger, "Averroism in Bologna" (1954); Federici Vescovini, "La classification des mathématiques" (1994), "L'exorde de l'*Arithmetica*" (2003); Grabmann, "Studien" (1936); Kuksewicz, *Averroïsme bolonais* (1965); Sorge, *Profili dell'averroismo bolognese* (2001), "L'ente e l'uno" (2002); Vanni Rovighi, "La psicologia" (1931); Lohr.

THEMON JUDAEUS b. Münster; *fl.* 1349–60. Paris arts master, whose work is in the circle of John Buridan. Likely a Jew who converted to Christianity, he became an arts master at Paris by 1349, and was subsequently prominent in university affairs. His extant works are a set of questions on Aristotle's *Meteorology* (ed. 1516, etc.), a commentary on Sacrobosco's *Sphere*, and a set of questions on the motion of the moon [1350] (both ed. Hugonnard-Roche 1973).

Secondary sources. Crombie, *Robert Grosseteste* (1953); Lohr.

THEODORE II DUKAS LASKARIS b. 1221/2; d. 1258. Emperor of Nicaea who left philo-sophical, scientific, and theological works. Trained in philosophy from a young age by leading scholars, such as Nikephoros Blemmydes, he succeeded his father as emperor in 1254. Extant philosophical works include *De naturali communione libri VI* (*Physike koinonia*) (PG 140); *Kosmikē dēlōsis* (*A Description of the Natural World*) (ed. Festa 1897–9); *A Treatise on Virtue* and *A Praise of Wisdom* (both ed. Palaiologou 2007); and a *Concise Ethics* (unedited). Also extant are various works of rhetoric (ed. Tartaglia 2000) and theology (ed. Krikones 1988).

Secondary sources. Georgiopoulou, "Theodore II Dukas Laskaris" (1990); Papadopoulos, *Théodore II Lascaris* (1908); Richter, *Theodoros Dukas Laskaris* (1989); ODB (Angold).

THEODORE ABŪ QURRAH b. Edessa (Syria), *ca.* 750; d. prob. after 816. Theologian and Christian apologist, an early participant in Christian–Islamic dialogue. Very little is known about his life. Traditionally said to have joined the monastery of Mar Sabas (Palestine), where John of Damascus (d. 749) had been a lively intellectual force, but the evidence for this claim is thin. Chalcedonian bishop of Harran from an unknown date. The story of his being deposed as bishop *ca.* 813 on grounds of heresy is now judged unlikely. Works are extant in both Arabic (part. ed. Bacha 1904) and Greek (PG 97). More recently edited Arabic works are a treatise on icons (ed. Dick 1986) and a treatise on the existence of God and the true religion (ed. Dick 1982). Most of his writings have recently been published in English (tr. Lamoreaux 2005).

Secondary sources. Griffith, *Theodore Abu Qurrah* (1992); Lamoreaux, "Biography" (2002); Samir and Nielsen, *Christian Arabic Apologetics* (1994).

THEODORE GAZES (Gaza) b. Thessaloniki, *ca.* 1415; d. Calabria, 1475/6. Translator, grammarian. Moved to Italy by 1440, studying Latin in Mantua and then teaching

Greek at Ferrara. In 1451 joined the circle of Bessarion in Rome, where he was active as a translator from Greek into Latin and vice versa (see Appendix B5). His *Eisagogē* to Greek grammar (ed. Donnet 1979) became a standard textbook. His *De fato* (ed. and tr. Taylor 1925) responds to Plethon's necessitarian reading of Plato.

Secondary sources. Geanakoplos, "Theodore Gaza" (1989); ODB (Kahzdan, Talbot).

THEODORE METOCHITES b. 1270; d. Constantinople, 1332. Prominent statesman and prolific scholar. Despite being forced into exile with his father at the age of thirteen, Theodore came to occupy a series of prominent administrative positions at an early age, culminating in his appointment as prime minister in 1305. With the overthrow of Emperor Andronicus II, he was imprisoned and then exiled in 1328, returning two years later to live out his life at the monastery of Chora. His many writings – almost all extant, but many unedited – range over philosophy, astronomy, history, and poetry. Most prominent is his *Miscellanea* (ed. Müller and Kiessling 1821/1966; part ed. and tr. Hult 2002), an encyclopedic collection of philosophical, scientific, and historical essays. Also extant is a paraphrase of Aristotle's *Physics* and *Parva naturalia* (ed. 1559/1992), an introduction to astronomy (ed. Bydén, in *Theodore Methochites* 2003), and an ethical treatise (ed. Polemes 1995).

Secondary sources. Beck, *Theodoros Metochites* (1952); de Vries-Van der Velden, *Théodore Métochite* (1987); Ševčenko, *Études sur la polémique* (1962); Tatakis, *Byzantine Philosophy* (2003); ODB (Talbot).

THIERRY OF CHARTRES (Theodoricus Carnotensis) b. Brittany; d. after 1156. Philosopher and influential teacher. Perhaps the younger brother of Bernard of Chartres. Taught at the cathedral school at Chartres and perhaps in Paris as well, *ca.* 1130. Chancellor of Chartres in the 1140s. Resigned his position in the 1150s and lived the remainder of his life in a monastery, perhaps the Cistercian abbey of Vaux-de-Cernay. His chief works are a series of commentaries on Boethius's theological works [1140s], the cosmological *De sex dierum operibus* [1130s] (both ed. Häring 1971), and a prologue and notes to his massive, unfinished encyclopedic collection of texts on the liberal arts, the *Heptateuchon* (prol. ed. Jeauneau, in *Lectio philosophorum* 1973). Also extant are two earlier works on rhetoric [1130s] (ed. Fredborg 1988).

Secondary sources. Dronke, "Thierry of Chartres" (1988); Maccagnolo, *Rerum universitas* (1976); Speer, *Entdeckte Natur* (1995); Dronke.

THOMAS AQUINAS (d'Aquino) b. Roccasecca (Italy), 1224/5; d. Fossanova, 1274. Philosopher and theologian; the foundational figure of scholastic thought. Studied first at the nearby abbey of Monte Cassino, then in Naples in 1239, where, against his family's wishes, he joined the Dominican order *ca.* 1242/4. Sent first to Paris in 1246 and then to Cologne in 1248, studying under Albert the Great. Returned to Paris in 1252 as a student of theology, becoming regent master in 1256. After three years, Aquinas was sent back to Italy in 1259, where he taught in houses of study in Orvieto in 1261–5 and Rome in 1265–8. From there he was sent back to Paris for an unusual second term as regent master, in the midst of considerable turmoil over the status of the mendicant

orders and the proper interpretation of Aristotle. After four academic years, he returned to Italy for the last time in 1272, teaching in Naples.

Aquinas's works, except where noted, are available in the critical Leonine edition (ed. 1882–), and are available in searchable form at www.corpusthomisticum.org. Except where noted, they have been translated into English (see Thérèse Bonin's translation bibliography on the internet). His massive literary output can be divided into five main categories. Foremost are his major theological syntheses: his early *Sentences* commentary [1252–6] (ed. Mandonnet and Moos through IV.22; no translation); his *Summa contra gentiles* [1259–65]; and his *Summa theologiae* [1266–73], the third and last part of which was never completed, and which was "supplemented" (from q. 90) soon after his death by parts of the *Sentences* commentary. Second in philosophical significance are his disputed questions: *De veritate* [1256–9]; *De potentia* [1265–6]; *De anima* [1265-6]; *De spiritualibus creaturis* [1267–8]; *De malo* [1269–71]; *De virtutibus* [1271–2]; and his *Quodlibeta* [VII–XI from 1256–9; I–VI and XII from 1268–72]. Third are his Aristotelian commentaries, a project he began in 1267 and which extends to nearly all of Aristotle's major philosophical works. (There are also commentaries on Boethius's *De trinitate* [*ca.* 1258] and *De hebdomadibus*, on pseudo-Dionysius's *De divinis nominibus* [1260s], and on the *Liber de causis* [1272].) Fourth is his quite extensive set of biblical commentaries, including Job [1261–5], the Gospels [1264, 1269–72], and Paul's letters [1265–73]. Finally, there are many shorter treatises, including the early *De principiis naturae* [*ca.* 1252] and *De ente et essentia* [*ca.* 1254]; the *De regimine principum* (*De regno*) [*ca.* 1267]; and the polemical *De unitate intellectus* [1270] and *De aeternitate mundi* [1271].

Secondary sources. Torrell, *Saint Thomas Aquinas* (1996) (biobibliography), *Spiritual Master* (2003); Davies, *Thought of Thomas Aquinas* (1992); Finnis, *Moral, Political, and Legal Theory* (1998); Kretzmann, *Metaphysics of Theism* (1997), *Metaphysics of Creation* (1999); Kretzmann and Stump (eds.), *Cambridge Companion* (1993); Pasnau, *Thomas Aquinas on Human Nature* (2002); Pasnau and Shields, *Philosophy of Aquinas* (2004); Stump, *Aquinas* (2003); Wippel, *Metaphysical Thought* (2000); BCPMA (Davies); DMA (Imbach); Kaeppeli; REP (Kretzmann and Stump); SEP (McInerny and O'Callaghan).

THOMAS OF BAILLY b. Bailly (near Versailles); d. 1328. Secular master of theology at Paris. Studied at Paris, serving as regent master in 1301–7, from which time are extant six *Quodlibeta* (ed. Glorieux 1960).

Secondary source. Glorieux.

THOMAS BRADWARDINE b. England, *ca.* 1300; d. Canterbury, 1349. Influential philosopher, theologian, and mathematician. Fellow of Balliol College in 1321, becoming master of arts by 1323, by which time he had become a fellow of Merton College. After several years teaching on the arts faculty, he began studying theology. Left Merton in 1335, subsequently joining the household of bishop Richard Bury. After serving as master of theology *ca.* 1336–7, he was appointed chancellor of St. Paul's Cathedral in London in 1337–49. During these years his career was outside academia, including an appointment as royal chaplain in 1339, and as archbishop of Canterbury in 1349, just a month before his death from the plague. In philosophy, he is a foundational figure among the Oxford Calculators. Most significant is the *Tractatus de proportionibus*

velocitatum in motibus [1328] (ed. and tr. Crosby 1955). Also extant [1322/5] are *De insolubilibus* (ed. Roure 1970; ed. and tr. Read forthcoming); *De incipit et desinit* (ed. Nielsen 1982); *Geometria speculativa* (ed. and tr. Molland 1989); *Arithmetica speculativa* (ed. 1495); *Opus artis logicae* (ed. Pinborg 1982); and *De continuo* [1328/35] (ed. Murdoch 1957). A treatise on consequences seems unlikely to be his (ed. Green-Pedersen, in "Bradwardine (?)" 1982). His extant theological works include fragments from his *Sentences* commentary [*ca.* 1333] (unedited), a treatise *De futuris contingentibus* [perhaps from that commentary] (ed. Genest 1979), a sermon celebrating God's providence [1346] (ed. Oberman and Weisheipl in "The *Sermo epinicius*" 1958); and, most importantly, his masterwork on grace, foreknowledge, and human freedom, the *De causa Dei contra Pelagium et de virtute causarum ad suos Mertonenses* [1344] (ed. 1618/1964).

Secondary sources. Dolnikowski, *View of Time* (1995); Genest, *Prédétermination et liberté* (1992); Genest and Tachau, "Sur les *Sentences*" (1990); Leff, *Bradwardine* (1957); Murdoch, "Mathematics and Continuity" (1984); Molland, "Geometry" (1978); Oberman, *Archbishop Thomas Bradwardine* (1957); Spade, "*Insolubilia*" (1981); DMA (Celeyrette); DSB (Murdoch); ODNB (Leff); REP (Sylla).

THOMAS BUCKINGHAM b. prob. Buckinghamshire; d. 1349. English theologian. Fellow of Merton College from 1324, becoming master of arts *ca.* 1330 and then turning to theology. Lectured on the *Sentences* by 1338, becoming doctor by 1346, when he became chancellor of Exeter Cathedral. Extant works include his *Sentences* commentary (ed. 1505) and *Quaestiones theologicae* (*Ostensio meriti liberae actionis*) [*ca.* 1347] (q. 1 ed. Genest, in *Prédétermination* 1992), a response to Thomas Bradwardine's *De causa Dei*.

Secondary sources. De la Torre, *Contingency of Futures* (1987); ODNB (Benbow).

THOMAS OF CANTIMPRÉ (Brabantinus, van Belleghem, Cantimpratensis) b. near Brussels, *ca.* 1201; d. 1270/2. Encyclopedist, hagiographer. Studied as a boy at Liège, becoming an Augustinian canon in 1217 at the abbey of Cantimpré (near Cambrai). Joined the Dominican order at Louvain in 1232 and began studying theology under Albert the Great, first in Cologne and then in Paris. In 1246 he returned to Louvain, where he taught and preached throughout the region. His principal work is the vast *Liber de natura rerum* [1230-44] (ed. Boese 1973), an encyclopedia in twenty books ranging widely over the natural sciences. His *Bonum universale de apibus* (ed. and [Fr] tr. Platelle 1997) takes the life of bees as an allegory for the human good. Also extant are various hagiographical writings (available in translation).

Secondary sources. Engels, "Thomas Cantimpratensis redivivus" (1974); DMA (Beyer de Ryke); Kaeppeli.

THOMAS OF CHOBHAM b. Chobham (Surrey); d. 1233/6. Moral theologian. Studied arts and theology in Paris in the 1180s under Peter the Chanter. Back in England by 1192, serving in the household of several wealthy patrons. Canon of Salisbury Cathedral by 1214. Returned to Paris after 1217, teaching theology there between 1222 and 1228, after which time he returned to Salisbury and might have become bishop but for his illegitimate birth. His most influential work is his *Summa confessorum* [1216] (ed. Broomfield 1968), an immensely popular handbook on the pastoral care of souls. Other

extant works are his *Summa de arte praedicandi* [1222/28] (ed. Morenzoni 1988), *Summa de commendatione virtutum et extirpatione vitiorum* [1222/8] (unedited), as well as many sermons (ed. Morenzoni 1993).

Secondary sources. Baldwin, *Masters, Princes and Merchants* (1970); ODNB (Goering).

THOMAS OF CLEVES (Thomas Zeghenans, de Berca, de Clivis) b. Kleve (Saxony), *ca.* 1340; d. Kleve, 1412. Philosopher in the tradition of John Buridan and Albert of Saxony. Studied the arts at Paris under William Buser, becoming master in 1365. Continued to teach at Paris until 1375; then at the Vienna cathedral school in 1376–83; and subsequently at the universities of Vienna and Cologne. Extant works are a *De conceptibus* [1370s] (ed. Bos and Read 2001) and a partial *Logica* (ed. Bos, in *Logica modernorum* 2004).

Secondary source. Read, "Collective Supposition" (1991).

THOMAS OF ERFURT (de Erfordia) *fl.* early 1300s. Logician and grammarian. Presumably a student at Paris. Later taught in Erfurt. His famous *Tractatus de modis significandi seu Grammatica speculativa* [before 1310] (ed. Bursill-Hall 1972) became the standard text of modistic grammar; until 1922 it was thought to be the work of Scotus. It shows the strong influence of Radulphus Brito and Siger of Courtrai. Other extant works are commentaries on the *ars vetus* (unedited) and a very brief collection of mnemonic verses for teaching grammar to schoolboys (ed. Gansiniec 1960).

Secondary sources. Lorenz, *Studium Generale Erfordense* (1989) [biography]; Ashworth, *Tradition* (1978); Gabler, *Die semantischen und syntaktischen Funktionen* (1987); Grabmann, *Thomas von Erfurt* (1943); Pinborg, *Entwicklung* (1967); Rosier-Catach, *La grammaire spéculative* (1983); BCPMA (Beuchot); SEP (Zupko).

THOMAS GALLUS (Vercellensis) b. France; d. 1246. Commentator on pseudo-Dionysius. An Augustinian canon, he spent his early years teaching theology at the Abbey of St. Victor in Paris. Joined the newly founded abbey in Vercelli (northern Italy) in 1219, becoming abbot in 1225. Forced out by political conflicts in 1243. His studies of the pseudo-Dionysian corpus come in three stages. First is the *Expositio*, a set of glosses [compl. 1233] (ed. in Denys the Carthusian, *Opera* vols. XV–XVI; *Mystical Theology* ed. and tr. McEvoy 2003; letters ed. Walsh, in "Expositions" 1963); then a widely circulated *Extractio* [1238] summarizing the four works (unedited); then a literal commentary on the whole corpus, the *Explanacio* [1241–3] (*Mystical Theology* ed. Théry 1934). Also extant is a commentary on the Song of Songs (ed. Barbet 1967).

Secondary sources. McEvoy, "Commentators" (2002); DS (Barber).

THOMAS MANLEVELT (Manlefelt, Maulfelt) *fl.* 1320s–30s. English logician, associated with nominalism. Parisian master of arts; subsequently taught in Leuven. Extant works include treatises *De suppositionibus*, *De consequentiis*, and *De confusionibus* (ed. in progress). Various other logical works are also attested to Manlevelt, including *Quaestiones super veteri arte* (part. ed. Andrews, "Thomas Maulevelt").

Secondary sources. Lorenz, *Studium Generale Erfurdense* (1989), "Thomas Manlefelt" (1996); Brands, "Referenztheorie" (1995); Grass, *Schlußfolgerungslehre in Erfurter Schulen* (2003); Lohr.

THOMAS OF STRASBOURG (Strassburg, de Argentina) b. Haguenau (Alsace); d. Vienna, 1357. Theologian. Augustinian hermit. Studied in Strasbourg and later in Paris. Prior general of his order in 1345–57. His *Sentences* commentary [1330s] (ed. 1490/1989, etc.), which is fairly conservative in character, was popular enough to have been reprinted many times during the Renaissance.

Secondary sources. Lindner, *Erkenntnislehre* (1930); Shannon, *Good Works and Predestination* (1940).

THOMAS OF SUTTON (Thomas Anglicus) b. Yorkshire, *ca.* 1250; d. after 1315. Early Thomist. Ordained deacon at Blyth (northeast England) in 1274. Fellow of Merton College, then a Dominican friar at Oxford, perhaps by 1282. Taught in the arts faculty; incepted as master of theology [1290/5]; still active in 1311. His most substantial edited works are his *Quaestiones ordinariae* (ed. Schneider 1977) and four *Quodlibeta* [1290s] (ed. Schmaus and Gonzalez-Haba 1969). Also extant are a *Contra quodlibet* (ed. Schneider 1978) aimed against Scotus and a critique of Robert Cowton's *Sentences* commentary [after 1312] (unedited). Various *opuscula* survive, sometimes confused with Aquinas's own, including *De instantibus* (ed. Aquinas, *Opera* 1852–73, vol. XVI); *Contra pluralitatem formarum* [1284] (ibid., vol. XVII); *De esse et essentia* (ed. Senko 1970); and *De productione formarum substantialium* (ed. Wlodek 1979). There is a commentary on the *Categories* [1270s] (part. ed. Conti, in "Commentary" 1985) and perhaps on *Metaphysics* VII (unedited), as well as continuations of Aquinas's unfinished commentaries on the *De generatione et corruptione* (ed. Kelley 1976) and the *De interpretatione* (unedited). Probably not by Sutton is the *Liber propugnatorius super primum Sententiarum contra Johannem Scotum* [1311/23] (ed. 1523/1966; part. ed. Schmaus 1930).

Secondary sources. Conti, "Le composizione metafisica" (1991); Friedman, "Trinitarian Theology" (2001); Kelley, "Two Early English Thomists" (1981); Klima, "Nature of the Intellective Soul" (2001); Lewry, "Two Continuators" (1981); BCPMA (Klima); DMA (Cesalli); Kaeppeli; ODNB (Luscombe); Roensch.

THOMAS WALEYS *fl.* 1318–40. English Dominican theologian. A friar from his youth, becoming bachelor of theology at Oxford by 1318, and incepting as master *ca.* 1323. Sent in 1326 to serve as lector at the Dominican convent in Bologna. Chaplain in Avignon in 1331, where he ran into trouble for attacking John XXII's controversial views regarding the beatific vision. Jailed in 1333, the charges against him were dropped after nineteen months, though he was not permitted to return to England until *ca.* 1342. Thomas's work shows a special affinity for classical texts: in addition to biblical commentaries, he wrote commentaries on Augustine's *City of God* and Boethius's *Consolation of Philosophy* (both available in various Renaissance editions). Also extant is a treatise *De modo componendi sermones* [*ca.* 1340] (ed. Charland, in *Artes praedicandi* 1936).

Secondary sources. Kaeppeli, *Le procès* (1936); Smalley, *English Friars* (1960); Trottmann, *La vision béatifique* (1995); Kaeppeli; ODNB (Tugwell).

THOMAS WYLTON (Wilton) *fl. ca.* 1288–1322. Philosopher, theologian. Fellow of Merton College *ca.* 1288–1301. Master of arts at Oxford in 1301–4. Subsequently pursued theological studies in Paris, serving as master of theology there in 1312–22. An influential realist, he was Walter Burley's teacher. His extant works include questions on the *Physics* and *De anima* [both before 1304] (unedited); one *Quodlibet* [1315/16] (almost entirely edited in various papers; see below); and various disputed questions (unedited).

Secondary sources. Dumont, "New Questions" (1998); Etzkorn and Andrews, "Multiple Accidents" (1994); Henninger, "Relations" (1990); Jung-Palczewska, "God's Infinite Power" (1996), "La question" (1997); Nielsen, "Theology and Virtue" (2000); Nielsen, Noone, and Trifogli, "Formal Distinction" (2003); Nielsen and Trifogli, "Beatific Vision" (2006); Senko, "De anima intellectiva" (1964); Trifogli, "Statuto ontologico del tempo" (1990), "Wylton on Motion" (1995), "Immobility of Place" (1998), "Final Causality" (2007), "*Quodlibet*" (2007); Trifogli and Nielsen, "Number, the Instant, and Time" (2005); BCPMA (Trifogli); ODNB (Lohr).

THOMAS OF YORK (de Eboraco) b. *ca.* 1220; d. before 1269. Theologian. Joined the Franciscan order by 1245. Sent to Oxford to study theology by 1249. Appointed master of theology in 1253, without having served as master of arts. Lector at Cambridge *ca.* 1256. His major work is the *Sapientale* [1250s] (unedited), an unsystematic compendium of philosophical and theological questions, drawing on a vast range of Christian and non-Christian sources. Also extant is a defense of the mendicant orders, *Manus quae contra omnipotentem* [1253/6] (ed. Bierbaum 1920).

Secondary sources. Grabmann, "Metaphysik" (1913); Longpré, "Thomas d'York" (1926); Reilly, "Efficacy of Secondary Causes" (1953); Sharp, *Franciscan Philosophy* (1930); Scully, "Power of Physical Bodies" (1962); ODNB (Catto); REP (Somerset).

THUO OF VIBORG (Thuo Nicholai de Vibergia) b. Dacia; d. Lund, 1472. Studied philosophy in Erfurt from 1426, becoming master of arts in 1428 and doctor of theology in 1439. Author of a *Disputata metaphysicae* [1438–9] (ed. Tabarroni 1998) and *De pluralitate formarum* (ed. Ebbesen 1998).

Secondary sources. Bos, "Thuo of Viborg" (1999); Lohr.

AL-ṬŪSĪ (Khwājah Naṣīr al-Dīn) b. Tus (Iran), 1201; d. Baghdad, 1274. Scientist, philosopher, and theologian. Born into a Twelver Shīʿī family; studied in Tus and then Nishapur. Took refuge from Genghis Khan in the mountain fortresses of Khorasan in 1227 and later Alamut, embracing the Ismāʿīlī faith of his hosts. With the fall of Alamut in 1256, he became scientific advisor to the Mongols and returned to Twelver Shīʿism. A large observatory and library were built for him at Maraghah, which became a center for philosophical and scientific inquiry. Al-Ṭūsī authored over 100 works, mostly in Arabic but also in Persian. In ethics, his best-known work is the *Akhlāq-i nāṣirī* (*Nasirean Ethics*) [1235; rev. 1265] (ed. M. Mīnuwi and A. R. Ḥaydarī 1977; tr. Wickens 1964). In theology, his major works are the *Tajrīd al-ʿaqāʾid* (*Abstract of Theology*) (ed. Sulayman 1996) and, from his Ismāʿīlī period, the *Tasawwurat* or *Rawdat-al-taslim* (*Paradise of Submission*) (ed. and tr. Badakhchani 2005). In logic, his main work is the *Asās al-iqtibās* (*The Ground for the Acquisition of Knowledge*) [1244] (ed. Radawi 1947). Other central works include

his commentary on Avicenna's *Ishārāt* [before 1258] (with Avicenna's text, in Dunyā 1957–60) and his memoir on astronomy, the *Tadhkira fī ʿilm al-hayʾa* (ed. and tr. Ragep 1993). An autobiography is also extant from his Ismāʿīlī period [prob. after 1246] (ed. and tr. Badakhchani 1998). Selected translations of al-Ṭūsī's metaphysics are available in Morewedge (1992).

Secondary sources. Mudarris Raḍawī, *Aḥwal wa ātār-i* (1975) [*Life and Works*]; Madelung, "Ethics" (1985); Morewedge, "Analysis of 'Substance'" (1975); Street, "Logical Connectives" (1995); DSB (Nasr); HIP (Dabashi); REP (Cooper).

UBERTINO DA CASALE b. Casale Monferrato (Piedmont), 1259; d. after 1328. Preacher and leader of the Spiritual Franciscans. Joined the Franciscan order in 1273. Studied in Paris, probably 1274–83, and subsequently lived in Florence, preaching there and in the surrounding communities, and serving as chaplain to Cardinal Orsini from 1306. Active in Avignon from 1309, attempting to resolve the conflicts over Franciscan spiritualism. Charges of heresy in 1319 and 1325 eventually forced him to flee Avignon, perhaps seeking protection at the court of Louis the Bavarian. His principal work is his lengthy eschatological treatise, the *Arbor vitae crucifixae Iesu* [1305] (ed. 1485/1961; part. tr. Armstrong *et al.*, *Francis of Assisi* 1999). Various shorter works defend the spiritualist movement and their conception of poverty, including the *Rotulus Iste*, the *Sanctitati apostolicae*, and the *Declaratio* [all 1311] (all ed. Ehrle 1887).

Secondary sources. Burr, *Spiritual Franciscans* (2001); Callaey, *L'idéalisme franciscain* (1911); Potestà, *Storia ed escatologia* (1980); DS (Potestà).

ULRICH OF STRASBOURG (de Argentina) b. Strasbourg, *ca.* 1220; d. Paris, 1277. Dominican theologian and philosopher, heavily influenced by Neoplatonism. Joined Dominican order *ca.* 1245, studying with Albert the Great in Paris and then in Cologne in 1248–54. Appointed lector in theology at the Strasbourg convent, then provincial minister of the Teutonic Province in 1272–7. Subsequently resumed his theology studies in Paris, but died before becoming master. His only extant work is the massive *Liber de summo bono* (*Summa de bono*) [1265–72] (ed. Mojsisch *et al.* 1989), a work heavily influenced by pseudo-Dionysius.

Secondary sources. Backes, *Christologie* (1975); Breuning, *Erhebung und Fall* (1959); de Libera, *Introduction* (1984), "Ulrich de Strasbourg" (1985); Grabmann, "Studien" (1926); Lescoe, *God as First Principle* (1979); Palazzo, "Ulrich of Strasbourg" (2004–6); Putnam, "Aristotelian Causes" (1961); BCPMA (Emery); Kaeppeli; REP (Bussanich).

URSO OF SALERNO b. Calabria; d. *ca.* 1225. Physician and last of the great masters of the school of Salerno. His work extends beyond the narrowly medical into fundamental questions of philosophy and natural science. Extant treatises include *Aphorismi cum glossulis* (ed. Creutz, in "Aphorismen" 1936), *De commixtionibus elementorum* (ed. Stürner 1976), *De effectibus qualitatum* (ed. Matthaes, *Salernitaner Arzt* 1918), *De effectibus medicinarum* (ed. ibid.), *De effectibus qualitatum accidentalibus* (ed. Sudhoff, in "Salernitaner Handschrift" 1920), *De gradibus* (ed. ibid.), *De saporibus et odoribus* (ed. Hartmann, *Literatur* 1919), *De coloribus* (ed. Thorndike 1959).

Secondary sources. Creutz, "Letzte des Hochsalerno" (1934); Jacquart, "Aristotelian Thought in Salerno" (1988); Kristeller, "School of Salerno" (1956); Dronke.

VINCENT OF BEAUVAIS (Bellovacensis) b. Beauvais (Picardy), *ca.* 1190; d. near Beauvais, *ca.* 1264. Encyclopedist. Among the first generation of Dominican friars, charged by the order with the task of producing a compilation of all knowledge for his fellow friars. The result was the encyclopedic *Speculum maius* [finished *ca.* 1260] (ed. Douai 1624/1964–5), in three parts: *Speculum naturale*, *Speculum doctrinale*, and *Speculum historiale*, with a prefatory *Libellus apologeticus* (ed. von den Brincken, in "Geschichtsbetrachtung" 1978). Lector at the Cistercian monastery of Royaumont (near Paris) from 1246, where he developed close ties with the royal family. His lesser works include the *De eruditione filiorum nobilium* [1247/50] (ed. Steiner 1938/1970), the *De morali principis institutione* [1260/2] (ed. Schneider 1995), the *Liber consolatorius pro morte amici* and the *Liber gratiae* (both ed. Amerbach 1481).

Secondary sources. Aerts *et al.* (eds.), *Studies on the* Speculum maius (1986); Gabriel, *Educational Ideas* (1956), *Mittelalterlicher Erzieher* (1967); Paulmier-Foucart *et al.* (eds.), *Vincent de Beauvais* (1990); Paulmier-Foucart and Duchenne, *Le grand miroir du monde* (2004); Tobin, *Education of Women* (1984); Weigand, *Scholastische Universalchronistik* (1991); DMA (Paulmier-Foucart); Kaeppeli. See also the Vincent of Beauvais Newsletter (1976–) and Johannes Voorbij's internet bibliography.

VINCENT FERRER b. Valencia, 1350; d. Vannes (Brittany), 1419. Dominican philosopher and preacher. Joined the order as a youth, studying at convents in Valencia and Barcelona. After further study in Lérida and Toulouse, he returned to Valencia to teach theology at the cathedral school, *ca.* 1385. A close relationship with Cardinal Pedro de Luna led him to Avignon once Pedro was elected to the papacy as Benedict XIII. In 1399 he left the papal court, dedicating himself largely to missionary work and preaching, for which he became famous. Many of those sermons are extant in Catalan (ed. Sanchis y Sivera and Schib 1971–). His philosophical writings are a *Tractatus de suppositionibus* (ed. Trentman 1977) and a *Quaestio de unitate universalis* (ed. Trentman 1982). His best-known work is his *Tractatus de vita spirituali* (ed. Rousset 1899; tr. 1957). Other sermons and treatises have also been edited (ed. Fages 1909).

Secondary sources. Fages, *Histoire* (1901); BBK (Frenken); DMA (Pujol Gómez); Kaeppeli.

VITAL DU FOUR (Vitalis de Furno) b. Bazas (Aquitaine), *ca.* 1260; d. Avignon, 1327. Franciscan philosopher and theologian. Became a friar at an early age. Studied theology at Paris in 1285–91, apparently without then receiving the doctorate or serving as regent master. Lectured at the Montpellier *studium* in 1292–6, then the University of Toulouse in 1296–1307. Elected provincial minister of the Aquitaine province in 1307, perhaps receiving the doctorate at this time by papal fiat. Elected cardinal in 1312 and then cardinal-bishop of Albano in 1321. During his later years he played a leading role in shaping the mainstream Franciscan response to the spiritualist movement. Vital's philosophical ideas are in line with the conservative Franciscans of the thirteenth century. His principal philosophical works are a *Sentences* commentary [1295–6] (unedited); three

Quodlibeta [1296–1300] (ed. Delorme 1947); and disputed questions *De rerum principio* [1292–5] (ed. 1891) and *De cognitione* (ed. Delorme 1927). There is also a popular *Speculum morale totius sacrae Scripturae* [1305] (ed. 1513, etc.) and a commentary on the Apocalypse (ed. Bonelli 1773).

Secondary sources. Lynch, *Theory of Knowledge* (1972); Mann, "Best of All Possible Worlds" (1991); Mauro, "Disputata de anima" (1997); Piron, "Franciscan Quodlibeta" (2006); Putallaz, "La connaissance de soi" (1990); BCPMA (Traver); DMA (Brumberg-Chaumont); Glorieux; REP (Mann).

WALAHFRID STRABO b. Swabia, 808/9; d. Reichenau, 849. Poet, scholar, Benedictine monk. A student of Rabanus Maurus at the abbey school of Fulda. Tutor of Charles the Bald in 829–38; abbot of the monastery of Reichenau in 839–49. Most famous as a poet (ed. Dümmler, *Poetae Latini* 1884), particularly for his *Visio Wettini* [824/5] (ed. and tr. Traill 1974), describing the vision of a journey to the next life. Also the author of the *Life of St. Gall* (tr. Joynt 1927) and other saints' lives; of biblical commentaries; and of a history of church liturgical practices, the *Libellus de exordiis et incrementis quarundam in observationibus ecclesiasticis rerum* (ed. and tr. Harting-Correa 1996). Not the originator of the *Glossa ordinaria*, as traditionally thought.

Secondary source. BBK (Wesseling).

WALTER OF AILLY (Gualterus de Alliaco) *fl.* thirteenth century. Parisian arts master, known only from the colophon of several manuscripts containing sophisms, two logical (unedited) and one grammatical (ed. Rosier-Catach 1989).

Secondary source. Weijers.

WALTER OF BRUGES b. Zande (western Flanders), *ca.* 1225; d. Poitiers, 1307. Franciscan theologian. Joined the order at a young age, and was sent to study at Paris, where he was a student of Bonaventure. Lectured on the *Sentences ca.* 1261–5, serving as regent master in 1267–8. Subsequently served as provincial minister for France until 1279, when he was elected bishop of Poitiers, a position he held until the year before his death. All but Bk. III of his *Sentences* commentary is extant (unedited except for excerpts below), with Bk. I seemingly a later redaction [shortly after 1270]. Also extant are various disputed questions from his tenure in Paris (ed. Longpré 1928).

Secondary sources. Decorte, "Einfluss der Willenspsychologie" (1983); Eardley, "Foundations of Freedom" (2006); Kent, *Virtues of the Will* (1995); FA; Glorieux.

WALTER BURLEY (Burleigh) b. England, 1274/5; d. 1344/5. Philosopher and logician, an influential advocate of metaphysical realism. Began studying the arts at Oxford *ca.* 1296; master of arts by 1301; fellow of Merton College in 1305. Left for Paris in 1307/9 to study theology, receiving his doctorate by 1323. (His *Sentences* commentary is not extant.) Returned to England in 1327, where he entered into royal service, leaving his academic career behind. Joined Richard Bury's household in Durham in 1334–40. Spent his last few years abroad, in Italy and southern France.

His surviving works are exclusively philosophical. From his years on the arts faculty at Oxford, or shortly thereafter, are questions on *De anima* III [1301] (ed. Synan 1997); the

De interpretatione [in 1301 and again before 1310] (ed. Brown 1974, 1973); the *Posterior Analytics* [before 1310] (ed. Sommers 2000); the *De generatione* [*ca.* 1307] (ed. Gensler 2007); and the *Categories* [before 1310] (unedited). Also extant from this period [*ca.* 1302] are a series of logical treatises: *De suppositionibus* (ed. Brown 1972); *De exclusivis* (ed. de Rijk 1985); *De exceptivis* (ed de Rijk 1986); *De consequentiis* (ed. Green-Pedersen 1980); *De insolubilibus* (ed. Roure 1970); and *De obligationibus* (ed. Green 1963; part. tr. CTMPT I). Early commentaries on the *Topics*, *De anima*, and *Physics* are extant (all unedited), as is a later *Physics* commentary [after 1324] (ed. 1501/1972). From the 1320s there are treatises *De potentiis animae* (ed. Kitchel 1971), *De primo et ultimo instanti* (ed. Shapiro and Shapiro 1965), *De formis* (ed. Scott 1970), *De relativis* (ed. Shapiro and Kiteley 1962), and *De intensione et remissione formarum* (ed. 1496). Also from this period is his principal work of logic, the *De puritate artis logicae* [a short version and a long version are extant] (ed. Boehner 1955; tr. Spade 2000). From Burley's last years come commentaries on the *Ethics* [1334] and *Politics* [1343] (both unedited), a treatise *De universalibus* [after 1337] (ed. Wöhler 1999), and a last set of commentaries on the *ars vetus* [1337] (ed. 1509), offering a major reconsideration of his metaphysics and logic.

Secondary sources. Krieger, "Studies" (1999); Ottman and Wood, "Life and Works" (1999); Cesalli, "Le réalisme propositionnel" (2001); Conti, "Ontology" (1990), "Significato e verità" (2000); Gambra, "Compromiso de existencia" (1996); Karger, "Realism" (1999); Nederman, "Kings, Peers and Parliament" (1992); Normore, "Continuity" (1982); Pinborg, "Meaning of Proposition" (1969); Spade, "How to Start and Stop" (1994), "Kinds of Simple Supposition" (1999); Uña, *Contexto cultural* (1978); Wood, "*Physics* Commentaries" (1984), "Motion in a Vacuum" (1989/90), "Willing Wickedly" (1999); BCPMA (Sommers); DMA (Sylla); ODNB (Sommers); REP (Sylla); SEP (Conti); Weijers.

WALTER CHATTON (Catton) b. Chatton (Northumbria), 1285/90; d. Avignon, 1343/4. Theologian and philosopher, an important influence on Ockham. Entered the Franciscan order as a boy, probably at Carlisle, where he would have received his early education. Studied theology at Oxford *ca.* 1317–19. Lectured on the *Sentences*, either in London or Oxford, in 1321–3 and again in 1323–4, engaging in extensive disputations with Ockham. Regent master of theology in 1329–30. In Avignon from 1333. His principal works are two versions of his *Sentences* commentary – a *Reportatio* [*ca.* 1323] (ed. Wey and Etzkorn 2002–5) and a revised version up to Bk. I d. 17, of the *Lectura* [1324/30] (ed. Etzkorn and Wey 2007–). (The *Collatio* and *Prologus* are edited separately [ed. Wey 1989].) Also extant is a *Quodlibet* [1329–30] (ed. forthcoming) and a treatise *De paupertate evangelica* (ed. Douie 1931–2).

Secondary sources. Fitzpatrick, "Univocity of Being" (1971); Karger, "Objects of Knowledge" (1995); Keele, "*Res* Theory" (2003), "Divine Power" (2007); Kelley, "Universal Concept" (1981); Maurer, "Ockham's Razor" (1984); Schabel, "Oxford Franciscans" (2000); Tachau, *Vision and Certitude* (1988); BCPMA (Etzkorn); DMA (Etzkorn); ODNB (Biller); REP (Brown); SEP (Keele).

WALTER HILTON b. *ca.* 1343; d. 1396. Influential English contemplative, mystic, and ascetic. Studied canon law at Cambridge, apparently without becoming master.

Subsequently spent some time as a solitary, and then from *ca.* 1386 as an Augustinian canon at Thurgarton (Nottinghamshire), where he remained until his death. His principal works, in Middle English, are *The Scale of Perfection* [1386/96] (ed. Underhill 1923/1948; tr. Clark and Dorward 1991), exhorting the contemplative life, and his epistle on *The Mixed Life* (ed. Ogilvie-Thomson 1986), written for those attempting to combine contemplation with an active life.

   Secondary source. ODNB (Clark).

WALTER OF MORTAGNE (de Mauritania) b. Mortagne (Flanders), *ca.* 1100; d. Laon, 1174. Influential logician and theologian. Educated at Tournai and then Rheims, he subsequently taught at Laon from *ca.* 1120. Elected bishop of Laon in 1155 and subsequently much involved in ecclesiastical affairs. His "indifference" theory of universals is described by John of Salisbury, and in a *Tractatus "Quoniam de generali"* [1120s] (ed. Dijs, in "Two Anonymous" 1990; tr. King in *Peter Abailard* 1982), which seems likely to be Walter's. Other extant works include a *Liber de trinitate* (PL 209) and a philosophically interesting letter to Peter Abaelard [1140] (ed. Ostlender, in *Sententiae* 1929).

   Secondary source. Ott, *Theologischen Briefliteratur der Frühscholastik* (1937).

WĀṢIL IBN ʿAṬĀʾ d. 748/9. Theologian and preacher. Lived mainly in Basra. An important teacher who played a formative role in subsequent Islamic theology, especially Muʿtazilism. Although many theological writings are attested, none have survived (there is an extant sermon, ed. and [German] tr. Daiber 1988).

   Secondary sources. Van Ess, *Theologie und Gesellschaft* (1991–7); Watt, *Formative Period* (1973); BEIP (El-Kaisy); EI (van Ess).

WILLIAM OF ALNWICK b. Northumberland, *ca.* 1275; d. Avignon, 1333. Franciscan philosopher and theologian, a disciple of Scotus. A friar from an early age. Probably studied at the Franciscan *studium* at Newcastle, and subsequently in Paris, under Scotus. Regent master at Oxford in 1315–16 and perhaps in Paris in 1317–18; subsequently lectured in Montpellier and Bologna. His opposition to John XXII on the issue of apostolic poverty led to a process of censure in 1323 and his flight to Naples. Seven years later, Alnwick (pronounced ANick) was appointed bishop of Giovinazzo. During his years studying in Paris, he served as secretary for Scotus's *Ordinatio* and reported one of his *Collationes*. After Scotus's death, he produced the lengthy *Additiones magnae* [1312/25], completing Scotus's unfinished lectures. Alnwick's own thought, often original despite the strong Scotistic influence, survives in his own *Sentences* commentary from Paris [prob. 1313–15] (unedited); disputed questions *De esse intelligibile* [1315–16] (ed. Ledoux 1937; part. tr. CTMPT III); a *Quodlibet* [1315–16] (ed. Ledoux 1937), and a lengthy set of *Disputationes* [1322–3] (only selections edited; see secondary sources). Three questions on time are also extant (ed. Alliney, *Time and Soul* 2002).

   Secondary sources. Dumont, "Univocity" (1987); D'Souza, "Problem of Faith and Reason" (1973); Kuksewicz, "Trois questions anti-averroistes" (1966); Maier, "Gegen den Averroismus" (1949); Noone, "Formal Distinction" (1993); Prezioso, *Evoluzione del volontarismo* (1964); Schmaus, "Futura contingentia" (1932); Veliath, "Scotism" (1970); BCPMA (Dumont); Emden; ODNB (Brown); Weijers.

WILLIAM OF ARNAUD (Arnaldi) *fl. ca.* 1270s. Logician. Author of a *Lectura tractatuum* [1270s] (ed. de Rijk, in "Genuine Text" 1969), a commentary on Peter of Spain's *Tractatus*. Not an arts master at Toulouse from the 1230s/40s, as de Rijk argued.

Secondary sources. Gondras, "Liber de sex principiis" (1975); d'Ors, "Petrus Hispanus II" (2001); Tabarroni, "Lo Pseudo-Egidio" (1988); BCPMA (Lahey); Lohr.

WILLIAM OF AUVERGNE (William of Paris, Guillelmus Alvernus) b. Aurillac (Auvergne), 1180/90; d. 1249. Theologian and bishop. Master of theology at Paris by 1223; canon of the cathedral of Notre Dame. Appointed bishop of Paris in 1228–49, which gave him authority over the university. William's thought attempts to grapple with the influence of Islamic philosophy and the new Aristotle. Most of his philosophical works are part of a massive *summa*, the *Magisterium divinale ac sapientiale* [1228/40], consisting of *De trinitate* [*De primo principio*] (ed. Switalski 1976; tr. Teske and Wade 1989); *De universo creaturum* (tr. Teske 1998–2007); *De anima* [*ca.* 1240] (tr. Teske 2000); *Cur Deus homo*; *De fide et legibus*; *De sacramentis*; and *De virtutibus et moribus*. Other important philosophical works include his *De immortalitate animae* (ed. Bülow 1897; tr. Teske 1991), *De bono et malo* (ed. O'Donnell 1946–54), *De gratia et libero arbitrio* (ed. Corti 1966); *De arte predicandi* (ed. de Poorter 1923); and *De errore Pelagii* (ed. Landgraf 1930). Works not available in a modern edition can be found in his *Opera omnia* (ed. Le Feron 1674/1963, etc.).

Secondary sources. Morenzoni and Tilliette (eds.), *Autour de Guillaume d'Auvergne* (2005) [bio-bibliography]; Baumgartner, *Erkenntnislehre* (1893); Jüssen, "Transformation der scholastischen Philosophie" (1987); Lewis, "Enuntiable" (1995); Marrone, *New Ideas of Truth* (1983); Moody, "*De anima*" (1975); Quentin, *Naturkenntness* (1976); Rohls, *Wilhelm von Auvergne* (1980); Teske, *Studies* (2006); Valois, *Sa vie et ses ouvrages* (1880); BCPMA (Teske); DMA (Brenet); DS (Viard); REP (Marrone); Weijers.

WILLIAM OF AUXERRE (Guillelmus Altissiodorensis) b. Auxerre, *ca.* 1150; d. Rome, 1231. Influential early university theologian. Master of theology at Paris during its earliest years. Archdeacon of Beauvais. Died before carrying out Pope Gregory IX's commission in 1231 to reform the university study of Aristotle. His philosophical thought survives in his influential *Summa aurea* [1215/29] (ed. Ribaillier 1980–7), a comprehensive theological work modeled on Peter Lombard's *Sentences*, but developed more systematically, and influenced by the broader philosophical corpus of the thirteenth century. The only other extant work ascribed to him with confidence is the *Summa de officiis ecclesiasticis* [*ca.* 1200] (unedited), an account of Church offices and liturgical practices.

Secondary sources. Saint Pierre, "Bibliography" (1966); Coolman, *Knowing God* (2004); Lottin, *Psychologie et morale* (1942–60); MacDonald, "Goodness as Transcendental" (1992); Ottaviano, *La vita, le opere* (1929); Principe, *Hypostatic Union* (1963–75); Solère, "Question du possible" (2000); BCPMA (Zupko); DMA (Lambert and Solère); DS (Ribaillier); REP (MacDonald); Weijers.

WILLIAM OF BONKES *fl.* 1290s. Oxford philosopher. Fellow of Balliol College in 1291 and regent master of arts in 1293. Sets of questions are extant on Priscian, and on the *De interpretatione*, *Metaphysics*, *Physics*, *De caelo*, *De generatione*, and *Meteora* (all unedited). Sophismata are also extant (ed. Ebbesen, in "*Animal est*" 1993).

Secondary source. Lohr.

WILLIAM BUSER b. Heusden (Brabant), before 1339; d. after 1413. Logician. Student of Albert of Saxony. Master of arts at Paris from 1357; rector in 1364. Teacher of Thomas of Cleves and Marsilius of Inghen. Only known work is an *Obligationes* [1360] (ed. Pozzi, *La coerenza logica* 1990).

Secondary sources. Kneepkens, "Mysterious Buser" (1982), "Obligationes" (1993); Weijers.

WILLIAM OF CHAMPEAUX b. Champeaux (Île-de-France), *ca.* 1060/70; d. Clairvaux, 1122. Realist logician and theologian, the leading philosopher of his day. Studied under Anselm of Laon. Information about much of his life is uncertain, but taught in Paris, first at the school of Notre Dame beginning in 1094, then at the abbey of St. Victor *ca.* 1108–13, which he helped to found. Elected bishop of Châlons-sur-Marne in 1113. Died shortly after joining the Cistercian order. In addition to his influential teaching, William was extremely active as an ecclesiastical reformer. His logical ideas – distinguished foremost by their realism – are known largely through the uncharitable criticisms of his most famous student, Peter Abaelard. A number of surviving logical treatises have recently been identified, however, including two *Introductiones dialecticae* [*ca.* 1094] (ed. Iwakuma, in "Introductiones" 1993), as well as commentaries on the *ars vetus* (unedited), on Boethius's *Topics* (part. ed. Green-Pedersen, in "William of Champeaux" 1974), and on Cicero's rhetoric (part. ed. Fredborg, in "Commentaries" 1976). His theological views survive as a collection of theological *sententiae* (ed. Lottin, in *Psychologie et morale* vol. V 1959).

Secondary sources. Iwakuma, "Étude préliminaire" (1999), "Categories" (2003), "*Introductiones*" (2003); Marenbon, *Aristotelian Logic* (2000) [papers]; Tweedale, *Abailard on Universals* (1976), "Logic" (1988); DMA (de Libera); Dronke; REP (Tweedale); SEP (Guilfoy).

WILLIAM OF CLIFFORD d. 1306. Arts master at Oxford by 1265. Bishop of Emly (Ireland) in 1286. Only work attributed with certainty is a commentary extant in one manuscript on the *Physics* (Bks. III–IV ed. Trifogli, in *Liber Quartus* 2007), although William seems likely to be the author of commentaries from the same manuscript on the *De anima*, *De generatione et corruptione*, *Meteora*, *De somno et vigilia*, and *De vegetabilibus*.

Secondary sources. Donati, "Alcuni commenti anonimi" (2008); Trifogli, *Oxford Physics* (2000); Zimmermann, "Bemerkungen" (1996); Lohr.

WILLIAM OF CONCHES b. Conches (Normandy), *ca.* 1085; d. after 1154. Natural scientist, Platonist, and influential teacher. Student of Bernard of Chartres, probably teaching at Chartres himself thereafter, and perhaps also at Paris. Tutor from *ca.* 1122 to Geoffrey Plantagenet, duke of Normandy. Best known for two comprehensive philosophical surveys: the *Philosophia mundi* [*ca.* 1125] (ed. and [German] tr. Maurach and Telle 1980; ed. Dutton in progress) and, in dialogue form, the *Dragmaticon philosophiae* [1144–9] (ed. Ronca *et al.* 1997; tr. Ronca and Curr 1997). (The second retracts certain positions of the first that had been criticized by William of St. Thierry.) Also extant are commentaries on Boethius's *Consolation of Philosophy* [*ca.* 1125] (ed. Nauta 1999), on Macrobius's commentary on Cicero's *Somnium Scipionis* (part. ed. Dronke, in *Fabula* 1974; ed. Lemay

in progress), on Priscian's *Institutiones grammaticae* (part. ed. Jeauneau, in *Lectio* 1973; ed. Jeauneau in progress), on Juvenal's *Satires* (ed. Wilson 1980), and on the *Timaeus* [*ca.* 1130] (ed. Jeauneau 2006). Perhaps also the author of the influential ethical compilation, *Moralium dogma philosophorum* (ed. Holmberg 1929).

Secondary sources. Dutton, *Mystery* (2006); Elford, "William of Conches" (1988); Ellard, *Sacred Cosmos* (2007); Gregory, *Anima mundi* (1955); DMA (Ricklin); Dronke; REP (Marenbon).

WILLIAM CRATHORN b. northern England; *fl.* 1330s. Eccentric Dominican theologian and philosopher. Lectured on *Sentences* Bk. I at Oxford [1330–1] (ed. Hoffmann 1988; q. 1 tr. CTMPT III). His psychology and metaphysics were the subject of extensive attacks by Robert Holcot. A *Quodlibet* may also be extant (unedited).

Secondary sources. Kirjavainen, "Transcendental Elements" (2000); Pasnau, *Theories of Cognition* (1997); Perler, "Mental Language" (1997); Richter, "Handschriftliches" (1972); Schepers, "Holkot contra dicta Crathorn" (1970–2); Sprengard, *Systematische-Historische Untersuchungen* (1968); Tachau, "*Complexe significabile*" (1987), *Vision and Certitude* (1988), "Introduction" (1995); BCPMA (Pasnau); Kaeppeli; REP (Pasnau); SEP (Robert).

WILLIAM OF DURHAM d. Rouen, 1249. Paris theologian. Master of theology at Paris from 1220/3 until 1229. Subsequently held various ecclesiastical appointments in France and England, amassing enough wealth to make the bequest that would eventually help found University College at Oxford. The only extant work known to be his is a large set of questions [late 1220s] surviving in a single manuscript (unedited except for a question on the eternity of the world in Dales and Argerami, *Medieval Latin Texts* 1991).

Secondary sources. Glorieux; ODNB (Summerson).

WILLIAM OF FALEGAR (Falgar, Falagar) d. 1297/8. Franciscan theologian. Became a friar in Toulouse. Studied in Paris under John Pecham from *ca.* 1270, becoming regent master *ca.* 1280–2. Elected provincial minister of Aquitania in 1285. Lector at the papal curia in 1287–91; bishop of Viviers in 1296. Author of a *Sentences* commentary (unedited) and various disputed questions (part. ed. Gondras, in "Guillaume de Falegar" 1972), including a *De gradibus formarum* [1271–2] (ed. Glorieux, in "Le *De gradibus*" 1957). Also extant are various sermons (unedited). Not to be identified with Peter of Falco, as has been suggested.

Secondary sources. Burr, *Eucharistic Presence* (1984); Cenci, "Guglielmo de Falgar" (1985); Heysse, "Pierre de Falco" (1940); BBK (Kohl); FA; Glorieux; Weijers.

WILLIAM HEYTESBURY b. prob. Wiltshire, before 1313; d. 1372/3. Logician and natural philosopher; leading Oxford Calculator. Educated at Oxford; fellow of Merton College from 1330; regent arts master 1331–9. Doctor of theology in 1348. University chancellor in 1370–2, and perhaps earlier (1352–4). Rector at Ickham Church (Kent) from 1354. Surviving works, all dating from 1331 to 1339, are mainly in logic, where he was extremely influential, particularly in Italy. The *Regulae solvendi sophismata* [1335] (ed. 1494, etc.) consists in six chapters: on insolubles (tr. Spade 1979); on knowing and doubting (tr. CTMPT I); on relative pronouns; on beginning and ceasing; on maxima

and minima (tr. Longeway 1984); and on place, quantity, and quality. His two other principal works are the *De sensu composito et diviso* (ed. 1494, etc.; tr. CTMPT I) and the *Sophismata* (ed. 1494, etc.; a provisional ed. by Pironet is available on the internet). Other works include a treatise on consequences, *Juxta hunc textum* (internet ed. Pironet); a *Sophismata asinina* (ed. Pironet 1994); and a beginner's guide to definitions in natural philosophy, the *Termini naturales* (unedited). No theological works are extant.

Secondary sources. Boh, "Epistemic and Alethic Iteration" (1984); Buzzetti, "Linguaggio e ontologia" (1992); Lecq, "Necessity" (1983); Pasnau, "Knowledge" (1995); Spade, "Manuscripts" (1989); Sylla, "Medieval Quantifications" (1971); Weisheipl, "Repertorium" (1969); Wilson, *William Heytesbury* (1956/1960); BCPMA (Longeway); DMA (de Libera); ODNB (Ashworth); REP (Longeway); SEP (Longeway); Weijers.

WILLIAM HOTHUM b. Yorkshire, *ca.* 1245; d. Dijon, 1298. Early English Thomist. Dominican friar. Studied theology in Oxford by 1269. Lectured on the *Sentences* in Paris in the late 1270s, becoming regent master there in 1280–2. Dominican provincial minister in England in 1282–7, during which time he was perhaps active teaching at Oxford, and was directly involved in conflicts with John Pecham over Thomism. Subsequently appointed to a second term as master in Paris, which he never began, perhaps because he was busy with diplomatic missions for the English king, with which his later years were much occupied. Elected to a second term as English provincial in 1290–6, and subsequently archbishop of Dublin in 1296–8. Of his academic writings very little survives: aside from a few sermons, there is only a set of seventeen quodlibetal questions [1280] (unedited), and perhaps a *De anima* commentary ascribed to a Guillelmus Hedonensis (unedited).

Secondary sources. Hinnebusch, *Early English Friars Preachers* (1951); Kaeppeli; ODNB (Haines); Roensch.

WILLIAM DE LA MARE (de Mara) b. England; *fl.* 1270s. Franciscan theologian, known for his early opposition to Thomism. Little is known about his life. Studied theology in Paris, probably under John Pecham, and probably succeeding him as regent master in 1271–2. Thereafter returned to England. Most famous for his *Correctorium fratris Thomae* [1277/9; later revised] (ed. Glorieux 1927, with Richard Knapwell's response; revised text part. ed. Oliva 2005), which comprised a lengthy attack on Aquinas's views. In 1282 the Franciscans made this work mandatory for any friar reading the *Summa theologiae*. By 1284, there were four point-by-point Dominican responses, each known as a *Correctorium corruptorii*. William's other principal extant works are his *Sentences* commentary [1268–70] (ed. Kraml 1989–2001), a set of disputed questions [1274] (unedited), and several studies of the Hebrew and Greek texts of the Bible (unedited).

Secondary sources. Creytens, "Littérature des correctoires" (1942); Heynck, "Datierung" (1967); FA; ODNB (Marenbon).

WILLIAM OF LUCCA b. Lucca (Tuscany); d. 1178. Italian scholar. Studied in northern France, under the influence of the Porretani. Returned to teach in Lucca and Bologna, where he is buried. The only extant work ascribed with certainty is the first part of a commentary on pseudo-Dionysius's *De divinis nominibus* [1169–77] (ed. Gastaldelli

1983), which bears the influence of both Gilbert of Poitiers and John Scottus Eriugena. Perhaps also by this William is a *Summa dialectice artis* (ed. Pozzi 1975), much influenced by Peter Abaelard. Ascribed to that same author is a *De arithmetica compendiose tractata* (ed. Arrighi 1964).

Secondary sources. Jeauneau, "Commentaire sur les Noms Divins" (2000); Dronke.

WILLIAM OF MACCLESFIELD b. Macclesfield; d. Canterbury, 1303. Early English Thomist. Dominican friar. Studied theology at Paris in the early 1290s, then at Oxford, incepting there as master *ca.* 1298. Generally credited with the authorship of the *Correctorium* "*Quaestione*" [*ca.* 1284] (ed. Müller 1954), a response to William de la Mare, which suggests he was studying at Oxford well before his theological studies in Paris. Also extant and probably William's are questions on the prologue and Bk. I of the *Sentences* (unedited), and some disputed questions (unedited).

Secondary sources. Jordan, "Controversy" (1982); Schabel and Friedman, "Trinitarian Theology V" (2005); DMA (Bonino); Kaeppeli; ODNB (Marenbon); Roensch.

WILLIAM OF MIDDLETON (Milton, de Militonia, de Meliton) d. *ca.* 1257/60. Franciscan theologian. Studied theology under Alexander of Hales at Paris, becoming regent master there in 1248–53, and then at Cambridge in 1253–6. His extant works include various sets of disputed questions, including a set on the sacraments (ed. Piana and Gál 1961), a treatise on the Mass (ed. Lampen 1931), and a great many biblical commentaries (unedited). Involved in completing Alexander's *Summa* from 1255, but died before it was finished.

Secondary sources. DS (Van Dijk); FA; Glorieux; ODNB (d'Avray).

WILLIAM MILVERLEY *fl. ca.* 1400. English logician. Oxford arts master, a proponent of metaphysical realism, whose logical treatises circulated widely in England and on the continent. The only one of these to be edited is the *Compendium de quinque universalibus* (part. ed. Conti 1990).

Secondary sources. Ashworth and Spade, "Logic in Late Medieval Oxford" (1992); Emden; ODNB (Fletcher).

WILLIAM OF MOERBEKE b. Belgium, *ca.* 1215; d. Corinth, 1286. Prolific Aristotelian translator. Joined the Dominican order as a youth, probably entering the convent at Louvain. Living in Greece by 1260, and probably from much earlier. Confessor to the pope in Viterbo *ca.* 1267–78. Archbishop of Corinth in 1278–86. Responsible for new or revised translations from the Greek of practically the whole Aristotelian corpus [mainly 1260s; see Appendix B1] (ed. *Aristoteles Latinus* 1953–), along with various Greek commentators (ed. Verbeke *et al.*, in *Corpus latinum* 1957–), Proclus's *Elementatio theologica* [1268] (ed. Boese 1987), and the works of Archimedes. It is no longer supposed that William had a close relationship with Aquinas.

Secondary sources. Brams, *Riscoperta di Aristotele* (2003); Brams and Vanhamel (eds.), *Guillaume de Moerbeke* (1989); Dod, "Aristoteles Latinus" (1982); Grabmann, *Guglielmo di Moerbeke* (1946); Minio-Paluello, *Opuscula* (1972); DSB (Minio-Paluello); DMA (Flüeler); Kaeppeli.

WILLIAM OF NOTTINGHAM b. *ca.* 1282; d. 1336. Franciscan theologian. Master at Oxford *ca.* 1312–14, provincial minister of the English Franciscans in 1316–30. Philosophical writings include a *Sentences* commentary [1306–8] (unedited except for fragments, including IV.8–13 [on the Eucharist] ed. Barbarić 1976). Various biblical studies are also extant. To be distinguished from an earlier William of Nottingham, also a Franciscan, and also English minister provincial [1240–54].

Secondary sources. Friedman, "Trinitarian Theology" (2001); Longpré, "Le commentaire sur les *Sentences*" (1929); Meier, "*Distinctio formalis*" (1930); Schmaus, "De aeternitate mundi" (1932), "Neue Mitteilungen" (1932); Smalley, "Which William?" (1954); BBK (Wöhrer); FA.

WILLIAM OF OCKHAM (Occam) b. Ockham (Surrey), *ca.* 1287; d. Munich, 1347. Brilliantly innovative theologian and philosopher, the inceptor of late medieval nominalism. Joined the Franciscan order as a youth, probably studying at the London convent. Began his theological studies *ca.* 1310, either in London or Oxford. Eventually sent to Oxford, lecturing on the *Sentences* in 1317–19 and subsequently the Bible. Lectured at a Franciscan *studium*, probably in London, in 1321–4, without incepting as regent master. Summoned to Avignon in 1324 to respond to charges of heretical teaching. Various lists of propositions were drawn up, but no formal condemnation was ever made. While in Avignon, Ockham and several other Franciscans, including Michael of Cesena, minister general of the order, concluded that John XXII's position on apostolic poverty was heretical, and they fled Avignon in 1328 for Italy and then Germany, taking refuge with Emperor Ludwig of Bavaria. Ockham, excommunicated, spent the remainder of his life at the Franciscan convent in Munich.

Ockham's work divides in half. The first half consists in the scholastic theology and philosophy he wrote in England and Avignon (all ed. *Opera philosophica et theologica* 1967–89), the most important of which are his initial *Sentences* lectures, known as the *Reportatio* (covering Bks. II–IV); his revised version of Bk. I, known as the *Ordinatio* [1321/4] (part. tr. Boehner 1990; Spade, *Five Texts* 1994; CTMPT II–III); seven *Quodlibeta* [1321/4; rev. in Avignon] (tr. Freddoso and Kelley 1991); the enormously influential *Summa logicae* [*ca.* 1323] (pt. I tr. Loux 1974; pt. II tr. Freddoso and Schuurman 1980; pt. III–2 tr. Longeway 2007; pt. III–3 part. tr. CTMPT I); commentaries on the *ars vetus* (*Isagoge*, tr. Kluge 1973–4); the *Sophistical Refutations* [all 1321/4]; and a series of studies on Aristotle's physics [1321/4] (*Brevis summa* tr. Davies 1989). Other philosophically important works from this period are treatises on the Eucharist and on quantity [both 1323/4] (both tr. Birch 1930); a study of the connection of the virtues [1319] (tr. Wood 1997); a question on the eternity of the world (tr. Bosley and Tweedale, in *Basic Issues* 2006); and a treatise on divine foreknowledge (tr. Adams and Kretzmann 1983).

The second half of Ockham's literary career, from the time he left Avignon until his death, is concerned exclusively with political and ecclesiastical issues. The principal works from this period are the *Opus nonaginta dierum* [1332/4] (tr. Kilcullen and Scott 2001); *Epistola ad fratres minores* [1334] (tr. McGrade and Kilcullen 1995); *Octo quaestiones de potestate papae* [1340–1] (part. tr. McGrade and Kilcullen 1995); *Breviloquium* [1341/2] (tr. McGrade and Kilcullen 1992); *De imperatorum et pontificum potestate* [1346–7] (tr. Brett 1998); and the *Dialogus* [1334/46] (part. tr. CTMPT II). The last is available on

the internet in a critical edition with translation (ed. and tr. Kilcullen *et al.*). The rest is printed in the *Opera politica* (ed. Offler *et al.* 1940–97).

Secondary sources. Spade (ed.), *Cambridge Companion* (1999); Beckmann, *Bibliographie* (1992); Adams, *William Ockham* (1987); Freppert, *Basis of Morality* (1988); Hirvonen, *Passions* (2004); Goddu, *Physics* (1984); Knysh, *Political Ockhamism* (1996), *Ockham Hermeneutics* (1997); McGrade, *Political Thought* (1974/2002); Maurer, *Philosophy of William of Ockham* (1999); Michon, *Nominalisme* (1994); Miethke, *Weg zur Sozialphilosophie* (1969); Moody, *Logic* (1935); Müller, *Handeln in einer kontingenten Welt* (2000); Panaccio, *Les mots* (1991), *Ockham on Concepts* (2004); Pasnau, *Theories of Cognition* (1997); Shogimen, *Political Discourse* (2007); Tachau, *Vision and Certitude* (1988); BCPMA (Noone); FA; ODNB (Courtenay); REP (Panaccio); SEP (Spade); Weijers.

WILLIAM OF PAGULA b. prob. Paull (Yorkshire), *ca.* 1290; d. 1332 (?). Canon lawyer and theologian. Studied canon law at Oxford, receiving his doctorate *ca.* 1320. Vicar of the church of Winkfield (Salisbury) from 1314 until his death. Authored three treatises on practical theology (all unedited): a popular manual of pastoral theology, the *Oculus sacerdotis* [1320s] (tr. Mirk 1868/1975); the *Summa summarum* [1320/3], a hefty treatise on the responsibilities of the clergy; and the even heftier *Summa praelatorum* [1320/3], which was intended as a comprehensive sourcebook for parish priests, but did not achieve the popularity of the first two works. Also composed two recensions of a *Speculum regis* for Edward III [1331–2] (ed. Moisant 1891; tr. Nederman, in *Political Thought* 2002).

Secondary sources. Boyle, "*Summa summarum*" (1965); Nederman and Neville, "Origins of the *Speculum regis*" (1997); ODNB (Nederman).

WILLIAM PENBYGULL (Penbegyll) b. Exeter; d. Oxford, 1420. Oxford follower of John Wyclif's controversial realism. Studied at Oxford, becoming master of arts. Fellow at Exeter College in 1399; rector in 1406–7. Studied theology by 1417. Extant works are treatises *De universalibus* (ed. Conti 1982) and *Divisio entis in praedicamenta* (unedited).

Secondary sources. Conti, "Categories and Universals" 2008; Lohr; SEP (Conti).

WILLIAM PERALDUS b. Perault, *ca.* 1200; d. Lyon, 1261. Dominican moral theologian. Studied at Paris, becoming a friar there and subsequently living at the convent in Lyon. Author of the enormously influential *Summa de vitiis* [*ca.* 1236] and *Summa de virtutibus* [*ca.* 1248], compendia for preachers and confessors that often circulated together as a single work (ed. 1497, etc.) and would be loosely adapted into Middle English as the anonymous *Book for a Simple and Devout Woman* (ed. Diekstra 1998). Other extant works are the *De eruditione religiosorum* [*ca.* 1260/5] (ed. 1512, etc.) and *De eruditione principum* [*ca.* 1265] (ed. in Thomas Aquinas, *Opera omnia* 1852–73).

Secondary sources. Dondaine, "Vie et œuvres" (1948); Verweij, "*Summa de virtutibus*" (2006); Wenzel, "Continuing Life" (1992); Kaeppeli.

WILLIAM OF PETER GODIN b. Bayonne (Gascony), *ca.* 1260; d. Avignon, 1336. Early French Thomist. Joined the Dominican order at an early age. Studied at Béziers in 1279 and Montpellier in 1284–7. Subsequently lectured at various Dominican houses of study in France. Sent to Paris to acquire a doctorate in theology in 1292, eventually incepting

as master in 1304–6. Subsequently served as lector at the papal curia in 1306–12. His later years were occupied with ecclesiastical affairs for the Dominican order and for the papacy. Appointed cardinal in 1312 and cardinal-bishop of Sabina in 1317. Much involved in various inquiries into heresy. Principal philosophical work is his *Sentences* commentary, known as the *Lectura Thomasina* [1299–1301] (unedited). Also extant are a *Quaestio de individuationis principio* [*ca.* 1305] (unedited) and a *Tractatus de causa immediata ecclesiastice potestatis* [1318] (ed. McCready 1982), which should likely be ascribed to William rather than to Peter of Palude.

Secondary sources. Decker, *Gotteslehre* (1967); Fournier, "Cardinal Guillaume" (1925); Goris and Pickavé, "Lectura Thomasina" (1998); Grabmann, "Kardinal Guilelmus" (1926); Kaeppeli; Roensch.

WILLIAM OF RUBIO b. Spain, *ca.* 1290. Franciscan theologian. Student of Francis of Marchia. Lectured on the *Sentences* either in Paris or perhaps Barcelona [1324/32] (ed. 1518). Served from 1334 as provincial minister of Aragon. Quodlibetal questions are attested but not extant.

Secondary sources. Duba, "Continental Franciscan *Quodlibeta*" (2007); Rubert Candáu, *La filosofia del siglo XIV* (1952); Schabel, "Parisian Commentaries" (2002); FA.

WILLIAM OF ST. AMOUR b. Burgundy, *ca.* 1200; d. Burgundy, 1272. Paris theologian and leading controversialist against the mendicant orders. Studied at Paris in the 1220s, becoming master of arts in 1228. Doctor of canon law by 1238; master of theology by 1250. William was a leader in the anti-mendicant movement of the 1250s, but with Alexander IV's election as pope in 1254, the friars were again ascendant, and Willliam was suspended from teaching in 1255. This gave rise to his most famous work, the virulently anti-mendicant *De periculis novissimorum temporum* [1256] (ed. and tr. Geltner 2007), which precipitated an inquiry that led to the book's being burned and William's excommunication and exile from Paris. Various briefer anti-mendicant works are extant (ed. Traver 2003; ed. Traver, in "Disputed Questions" 1995), as well as a lengthy *Collectiones catholicae et canonicae scripturae* [1266] (ed. 1632/1997). William seems not to be the author of extant commentaries on the *Prior* and *Posterior Analytics* (unedited) once ascribed to him. The anti-mendicant *Liber de Antichristo* (ed. Martène and Durand 1733/1968) should be ascribed to his student, Nicholas of Lisieux.

Secondary sources. Dawson, "Apostolic Tradition" (1978); Dufeil, *Guillaume de Saint-Amour* (1972); Faral, "Responsiones" (1950–1); Fleming, "Collations" (1965); BBK (Menzel); DS (Delhaye); Lohr; Glorieux.

WILLIAM OF ST. THIERRY (a Sancto Theodorico) b. Liège, *ca.* 1080; d. Signy (Ardennes), *ca.* 1148. Benedictine theologian and mystic. Studied at cathedral schools in Liège and Rheims. Joined the Benedictine monastery of St. Nicaise near Rheims *ca.* 1100. Elected abbot of the St. Thierry monastery near Rheims in 1121–35; subsequently retired to the Cistercian abbey at Signy. His numerous works have been edited in PL 180; a critical edition is in progress (ed. Verdeyen and van Burink 1989–). His spiritual writings include the *Epistola ad fratres de Monte Dei* (also known as *De vita solitaria* or *The Golden*

Epistle) [1144] (tr. Berkeley and Déchanet 1971), and the treatises *De Deo contemplando* (tr. Penelope 1971); *De natura et dignitate amoris* (tr. Davis 1981); *Speculum fidei* (tr. Davis 1979); and *Aenigma fidei* (tr. Anderson 1974). William wrote several more theoretical treatises, including a *De natura corporis et animae* (ed. and [Fr] tr. Lemoine 1988; tr. McGinn, *Three Treatises* 1977) and a *De sacramento altaris*, and also polemical treatises against Peter Abaelard and William of Conches. Also extant are commentaries on the Song of Songs and on Romans (tr. Hasbrouck and Anderson 1980).

Secondary sources. Sergent, "Bibliography" (2004); Bell, *Image and Likeness* (1984); Baudelet, *Expérience spirituelle* (1985); Carfantan (ed.)*, William, Abbot of St. Thierry* (1987); Déchanet, *William of St. Thierry* (1972); Verdeyen, *La théologie mystique* (1990), *Guillaume de Saint-Thierry* (2003); Vuillaume, "La connaissance de Dieu" (1995); BBK (Lautenschläger).

WILLIAM OF SHERWOOD b. Nottinghamshire, 1200/5; d. 1266/72. Influential logician. Probably studied at Oxford, where he became master of arts by 1249. Treasurer of Lincoln from *ca.* 1255. The two works ascribed to Willliam with certainty are his *Introductiones in logicam* (ed. Brands and Kann 1995; tr. Kretzmann 1966/1975) and *Syncategoremata* (ed. O'Donnell 1941; tr. Kretzmann 1968). Possibly also by William are treatises on *Insolubilia* (ed. Roure 1970) and on *Obligationes* (ed. Green 1963).

Secondary sources. Braakhuis, "Views" (1977); Jacobi, *Modalbegriffe* (1980); Kirchhoff, *Syntcategoremata* (2008); Pinborg and Ebbesen, "Thirteenth-Century Notes" (1984); Spade and Stump, "*Obligationes*" (1983); Stump, "Treatise on Obligations" (1980); BCPMA (Longeway); DMA (de Libera); ODNB (Ashworth); REP (Longeway); Weijers.

WILLIAM OF SOISSONS *fl.* 1140s. Logician. Student of John of Salisbury and Adam of Balsham. Described by his student William of Tyre as a man of halting speech but sharp mind. No works are extant.

WILLIAM OF WARE b. Hertfordshire; *fl.* 1290–1305. Franciscan theologian; apparently the teacher of Scotus. Entered the Franciscan order at a young age. Studied at Oxford and lectured on the *Sentences* there, but without incepting as master. Perhaps lectured on the *Sentences* at Paris as well. Only work ascribed with certainty is the *Sentences* commentary [1290/1305], extant in three or perhaps four different redactions (unedited except fragments).

Secondary sources. Bissen, "L'incarnation" (1934); Daniels, "Menschliche Erkenntnis" (1913); Hödl, "Sentenzenkommentar" (1990); Gál, "Doctrina philosophica" (1954); Ledoux, "De gratia" (1930); Longpré, "Maîtres franciscains" (1922); Muscat, "De unitate Dei" (1927); Schabel and Friedman, "Trinitarian Theology IV" (2004); BCPMA (Cross); FA; ODNB (Marenbon).

WITELO b. Silesia, *ca.* 1230; d. *ca.* 1290. Theologian and philosopher, best known for his work in optics. Studied the arts in Paris in the 1250s and canon law at Padua from 1262/3 to 1268. Spent time at the papal court in Viterbo from 1268. Best known for his *Perspectiva* [1270/8] (Bks. I–III ed. and tr. Unguru 1977–91; Bk. V ed. and tr. Smith

1983), a study in ten books of the optics and psychology of vision that is heavily indebted to Ibn al-Haytham. Other extant works are the *De natura daemonum* and the *De causa primaria poenitentiae* (both ed. Burchardt 1979).

Secondary sources. Baeumker, *Witelo* (1908/1991); Birkenmajer, "Études sur Witelo" (1920–5); Lindberg, "Alhazen's Theory of Vision" (1967), "Lines of Influence" (1971), *Theories of Vision* (1976).

YAḤYĀ IBN ʿADĪ (Abū Zakarīyāʾ) b. Takrit (Iraq), 893; d. 974. Translator and logician. Jacobite Christian, moved to Baghdad as a youth where he studied with al-Fārābī and Abū Bishr Mattā. An important translator of Greek philosophical texts from Syriac into Arabic, and the author of numerous original treatises, including the ethical treatise *Tahdhīb al-akhlāq* (*Reformation of Morals*) (ed. and tr. Griffith 2002); a treatise on God's unity, the *Maqāla fī al-tawḥīd* (ed. Khalīl 1980); a treatise on free action (ed. and tr. Pines and Schwarz 1979); and a treatise *On the Possible* (ed. Ehrig-Eggert 1989; part. tr. McGinnis and Reisman, in *Classical Arabic Philosophy* 2007). Collections are available of other works both philosophical (ed. Khulayfāt 1988) and apologetical (ed. Périer 1920). An anti-Nestorian treatise has also been edited (ed. and [Fr] tr. Platti 1981).

Secondary sources. Endress, *Works* (1977); Ehrig-Eggert, *Die Abhandlung* (1990); Fakhry, *History* (2004); Platti, *Yahya Ibn ʿAdi* (1983); REP (Inati).

BIBLIOGRAPHY OF PRIMARY SOURCES

Included among the primary texts are all cited works written before 1800, including manuscripts, with the exception of modern multi-author anthologies, which are listed among the secondary sources under the editor's name. Authors prior to 1600 are organized by first name, unless that name is not standardly used. The bibliography does not generally list individual works published as part of collected editions. For information on editions and translations of specific works, consult Appendix C. For more information on medieval translations, consult Appendix B.

Abbo of Fleury. *De syllogismis hypotheticis*, ed. F. Schupp (Leiden: Brill, 1997).

    Opera inedita, ed. A. van de Vyver and R. Raes (Bruges: De Tempel, 1966).

    Questiones grammaticales, ed. A. Guerreau-Jalabert (Paris: Les Belles Lettres, 1982).

ʿAbd al-Jabbār. *Al-Mughnī fī abwāb al-tawḥīd wa-al-ʿadl* (Cairo: Wizārat al-Thaqāfah wa-al-Irshād al-Qawmī, 1960–).

al-Abharī. *Hidāyat al-ḥikma*, ed. U. Mumtāz al-Dīn (Dhaka: Imdādīya Lāʾibrayrī, 1960–5).

    Al-Isāghūjī fī al-manṭiq, tr. E. Calverley, in *The Macdonald Presentation Volume* (Princeton, NJ: Princeton University Press, 1933) 75–85.

Abner of Burgos. *Mostrador de justicia*, ed. W. Mettmann (Opladen: Westdeutscher Verlag, 1994–6).

    Ofrenda de Zelos (Minhat Kenaʾot) und Libro de la Ley, ed. W. Mettman (Opladen: Westdeutscher Verlag, 1990).

    Tesuvot la-Meharef: Spanische Fassung, ed. W. Mettmann (Opladen: Westdeutscher Verlag, 1998).

Abraham Abulafia. *The Path of the Names: Writings*, tr. D. Meltzer *et al.* (Berkeley, CA: Tree Books, 1976).

Abraham bar Ḥiyya. *Hegyon ha-Nefesh ha-Azuvah*, ed. G. Wigoder (Jersualem: Mosad Bialik, 1971).

    The Meditation of the Sad Soul, tr. G. Wigoder (London: Routledge and Kegan Paul, 1969).

    Megillat ha-Megalleh, ed. A. Poznanski (Berlin: Mekitzei Nirdamim, 1924).

    La obra enciclopédica, ed. J. M. Millás Vallicrosa (Madrid: Consejo Superior de Investigaciones Científicas, Instituto Arias Montano, 1952).

    La obra Séfer Hesbón mahlekot ha-kokabim, ed. and tr. J. M. Millás Vallicrosa (Barcelona: Consejo Superior de Investigaciones Científicas, 1959).

    Sefer ha-ʿIbur, ed. H. Filipowski (London: Longmans, 1851).

    Sphaera mundi (Basel: Petrus, 1546).

Abraham ibn Daud. *The Book of Tradition (Sefer ha-qabbalah)*, ed. G. D. Cohen (Philadelphia, PA: Jewish Publication Society of America, 1967).

    The Exalted Faith, ed. and tr. N. M. Samuelson and G. Weiss (Rutherford, NJ: Fairleigh Dickinson University Press, 1986).

Abraham ibn Ezra. *Abraham Ibn Ezra Reader: Annotated Texts with Introductions and Commentaries*, ed. I. Levin (New York: Israel Matz, 1985).

  The Book of Reasons: A Parallel Hebrew–English Critical Edition of the Two Versions of the Text, ed. and tr. S. Sela (Leiden: Brill, 2007).

  The Commentary of Ibn Ezra on Isaiah, ed. and tr. M. Friedländer (London: Society of Hebrew Literature, 1873; repr. New York: Feldheim, 1960).

  The Commentary of Rabbi Abraham Ibn Ezra on Hosea, ed. and tr. A. Lipshitz (New York: Sepher-Hermon Press, 1988).

  Ibn Ezra's Commentary on the Pentateuch, tr. H. N. Strickman *et al.* (New York: Menorah, 1988–2004).

  Kitvei R. Avraham ibn Ezra (Jerusalem: Makor, 1970), 4 vols.

  Le livre des fondements astrologiques, tr. J. Halbronn (Paris: Retz, 1977).

  The Religious Poems of Abraham Ibn Ezra (Jerusalem: Israel Academy of Sciences and Humanities, 1975).

  Reshit Hokhmah (The Beginning of Wisdom), ed. and trans. R. Levy and F. Cantera (Baltimore, MD: Johns Hopkins University Press, 1939).

  Twilight of a Golden Age: Selected Poems of Abraham Ibn Ezra, tr. L. J. Weinberger (Tuscaloosa: University of Alabama Press, 1997).

  Yesod Mora ve-Sod Torah, ed. J. Cohen and U. Simon (Ramat-Gan: Bar-Ilan University Press, 2002).

Abraham Maimonides. *The Guide to Serving God*, ed. and tr. Y. Wincelberg (Jerusalem: Feldheim, 2008).

  Kitāb Kifāyat al-ʿābidīn (Part Two, Volume Two), The Arabic Original with an Introduction and an Annotated Hebrew Translation, ed. and tr. N. Dana (Ramat-Gan: Bar-Ilan University, 1989).

  Maʿaseh nisim, ed. B. Goldberg. (Paris: Y. Bril, 1867).

  Milhamot ha-Shem, ed. R. Margaliot (Jerusalem: Mosad Harav Kook, 1953).

  A Treatise in Defence of the Pietists, tr. S. D. Goitein, *Journal of Jewish Studies* 16 (1965) 105–14.

Abū Ḥanīfa. *Al-ʿĀlim wa-al-mutaʿallim*, ed. M. Z. al-Kawthari (Cairo: Maṭbaʿat al-Anwar, 1949).

  Al-Fiqh al-akbar fī al-tawḥīd (Cairo: al-Maṭbaʿah al-ʿĀmirah, 1907).

  Iman Abu Hanifa's al-Fiqh al-akbar Explained, tr. A.-R. Ibn Yusuf (Santa Barbara, CA: White Thread Press, 2007).

Abū Maʿshar. *The Introduction To Astrology: Together With The Medieval Latin Translation of Adelard of Bath*, ed. C. Burnett *et al.* (Leiden: Brill, 1994).

  Introductorium ad astronomiam Albumasaris abalachi, tr. Hermann of Carinthia (Augsburg, 1489).

  Kitāb al-madkhal al-kabīr ilā ʿilm aḥkām al-nujūm = Liber introductorii maioris ad scientiam judiciorum astrorum, ed. R. Lemay (Naples: Istituto universitario Orientale, 1995–).

  On Historical Astrology: The Book of Religions and Dynasties (On the Great Conjunctions), ed. K. Yamamoto and C. Burnett (Leiden: Brill, 2000).

Abū Muḥammad ʿAbdallāh Ibn Rushd. *On Whether the Active Intellect Unites with the Material Intellect whilst it is Clothed with the Body*, ed. [Arabic, Hebrew, Latin] and tr. C. Burnett and M. Zonta, *Archives d'histoire doctrinale et littéraire du moyen âge* 67 (2000) 295–335.

Abū Saʿīd al-Sīrāfī. *Sharḥ Kitab Sibawayh*, ed. R. ʿAbd al-Tawwāb *et al.* (Cairo: al-Hayʾah al-Miṣrīya al-ʿĀmmah lil-Kitāb, 1986–).

Abū Tammām. *An Ismaili Heresiography: The "Bāb al-shayṭān" from Abū Tammām's* Kitāb al-shajara, ed. and tr. W. Madlung and P. E. Walker (Leiden: Brill, 1998).

  Kitāb al-īḍāḥ, ed. A. Tāmir (Beirut: al-Maṭbaʿah al-Kāthūlikīyah, 1965) (formerly ascribed to Shihāb al-Dīn Abū Firās).

Abū Wafāʾ al-Mubashshir ibn Fātik. *Liber philosophorum moralium antiquorum*, tr. John of Procida (?), ed. E. Franceschini, *Atti del Reale Istituto Veneto di Scienze, Lettere ed Arti* 91 (1931–2) 393–597.

Abū Zayd al-Balkhī. *Maṣaliḥ al-abdān wa-al-anfus*, ed. M. al-Misrī (Cairo: Maʿhad al-Makhṭūṭāt al-ʿArabīyah, 2005).

Accursius. *Glossa in Codicem* [*Glossa ordinaria*] (Venice, 1488; repr. Turin: Ex officina Erasmiana, 1968).

Achard of St. Victor. *De discretione animae et spiritus et mentis*, ed. N. M. Häring, *Mediaeval Studies* 22 (1960) 174–91.

    Sermons inédits, ed. J. Châtillon (Paris: Vrin, 1970).

    L'unité de Dieu et la pluralité des créatures, ed. E. Martineau *et al.* (Saint-Lambert des Bois: Authentica, 1987).

    Works, tr. H. Feiss (Kalamazoo, MI: Cistercian Publications, 2001).

Adam of Balsham. *Ars disserendi (Dialectica Alexandri)*, ed. L. Minio-Paluello (Rome: Edizioni di Storia e Letteratura, 1956).

    De utensilibus ad domum regendam, in B. Hauréau (ed.) *Notices et extraits de quelques manuscrits latins de la Bibliothèque Nationale* (Paris, 1890–3) vol. III.

Adam of Buckfield. *Sententia super secundum Metaphysicae*, ed. A. Maurer, in J. R. O'Donnell (ed.) *Nine Mediaeval Thinkers: A Collection of Hitherto Unedited Texts* (Toronto: Pontifical Institute of Mediaeval Studies, 1955) 99–144.

Adam Marsh. "Adae de Marisco epistolae," ed. J. S. Brewer, *Monumenta Franciscana* 1 (1858) 77–489.

Adam Wodeham. *Lectura secunda in librum primum Sententiarum*, ed. R. Wood and G. Gál (St. Bonaventure, NY: St. Bonaventure University, 1990).

    Super quattuor libros sententiarum, ed J. Major (Paris, 1512).

    Tractatus de indivisibilibus, ed. R. Wood (Dordrecht: Kluwer, 1988).

Adelard of Bath. *Conversations with his Nephew: On the Same and the Different, Questions on Natural Science, and On Birds*, ed. and tr. C. Burnett *et al.* (Cambridge: Cambridge University Press, 1998).

    Regulae abaci, ed. B. Boncompagni, *Bollettino di bibliografia e di storia delle scienze matematiche e fisiche* 14 (1881) 1–134.

Adhemar of St. Ruf. "The Tractatus de Trinitate of Adhemar of Saint-Ruf (Valence)," ed. N. M. Haring, *Archives d'histoire doctrinale et littéraire du moyen âge* 31 (1964) 111–206.

Aelred of Rievaulx. *De anima*, ed. C. H. Talbot (London: Warburg Institute, 1952).

    Dialogue on the Soul, tr. C. H. Talbot (Kalamazoo, MI: Cistercian Publications, 1981).

    The Mirror of Charity, tr. G. Webb and A. Walker (London: Mowbray, 1962).

    Opera omnia, ed. A. Hoste and C. H. Talbot (Turnhout: Brepols, 1971–).

    Sermones, ed. G. Raciti (Turnhout: Brepols, 1989).

    Spiritual Friendship: A New Translation, tr. M. F. Williams (Scranton, PA: University of Scranton Press, 1994).

Aimoin de Fleury. *Vita et passio sancti Abbonis*, ed. R.-H. Bautier *et al.* (Paris: CNRS, 2004).

Alan of Lille. *Anticlaudianus*, ed. R. Bossuat (Paris: Vrin, 1955).

    Anticlaudianus: Or the Good and Perfect Man, tr. J. Sheridan (Toronto: Pontifical Institute of Mediaeval Studies, 1973).

    Ars praedicandi, in J.-P. Migne (ed.) *Patrologiae cursus completus: series latina* (Paris, 1844–91) vol. CCX.

    De planctu naturae, ed. N. M. Häring, *Studi Medievali* 19 (1978) 797–879.

    Liber poenitentialis, ed. J. Longère (Leuven: Nauwelaerts, 1965).

    The Plaint of Nature, tr. J. Sheridan (Toronto: Pontifical Institute of Mediaeval Studies, 1980).

Regulae caelestis iuris, ed. N. M. Häring, *Archives d'histoire doctrinale et littéraire du moyen âge* 48 (1981) 97–226.

Summa "Quoniam homines", ed. P. Glorieux, *Archives d'histoire doctrinale et littéraire du moyen âge* 20 (1953) 113–364.

Textes inédits, ed. M.-T. d'Alverny (Paris: Vrin, 1965).

Albert the Great. *Commentary on Dionysius' Mystical Theology*, in S. Tugwell (tr.) *Albert and Thomas: Selected Writings* (New York: Paulist Press, 1988).

Opera omnia, ed. B. Geyer *et al.* [Cologne] (Münster: Aschendorff, 1951–).

Opera omnia, ed. E. Borgnet (Paris: Vivès, 1890–9).

Opera omnia, ed. P. Jammy (Lyon, 1651).

Albert of Orlamünde. *Philosophia pauperum* (Venice, 1496).

Albert of Saxony. *Expositio et Questiones in Aristotelis libros Physicorum ad Albertum de Saxonia attributae*, ed. B. Patar (Louvain-la-Neuve: Peeters, 1999).

Perutilis logica (Venice, 1522; repr. Hildesheim: Olms, 1974).

Perutilis logica, tr. A. Muñoz García (Maracaibo: La Universidad del Zulia, 1988).

Quaestiones in artem veterem, ed. A. Muñoz García (Maracaibo: La Universidad del Zulia, 1988).

Questiones circa logicam, ed. M. J. Fitzgerald (Leiden: Brill, 2002).

Questiones subtilissime in libros Aristotelis De celo et mundo (Venice, 1492; repr. Hildesheim: Olms, 1986).

Questiones subtilissime in libros de generatione (Venice, 1505; repr. Frankfurt: Minerva, 1970).

Questiones subtilissime super libros posteriorum (Venice, 1497; repr. Hildesheim: Olms, 1986).

Sophismata (Paris, 1502; repr. Hildesheim: Olms, 1975).

Tractatus proportionum, ed. H. L. L. Busard (Vienna: Springer in Komm, 1971).

Alcuin. *Alcuin of York, c. A.D. 732 to 804: His Life and Letters*, ed. S. Allott (York: W. Sessions, 1974).

Contra haeresim Felicis, ed. G. Blumenshine (Vatican: Biblioteca Apostolica Vaticana, 1980).

De orthographia, ed. S. Bruni (Florence: SISMEL, Edizioni del Galluzzo, 1997).

Epistolae Karolini aevi, ed. E. Dümmler (Berlin: Weidmann, 1895).

The Rhetoric of Alcuin and Charlemagne, ed. and tr. W. S. Howell (Princeton, NJ: Princeton University Press, 1941).

Alexander of Alexandria. *Commentarium De anima* (Oxford, 1481).

Commentarium in Metaphysicam (Venice, 1572) (published as Alexander of Hales).

Responsio ad Ubertinum de Casale, in A. Chiappini (ed.) "Communitatis Responsio 'Religiosi Viri' ad Rotulum fr. Ubertini de Casali," *Archivum Franciscanum Historicum* 7 (1914) 654–75; 8 (1915) 56–80.

Tractatus de usu paupere, in A. Heysse (ed.) "Ubertini de Casali Opusculum 'Super tribus Sceleribus'," *Archivum Franciscanum Historicum* 10 (1917) 103–74.

Tractatus de usuris, in A. M. Hamelin (ed.) *Un traité de morale économique au XIVe siècle* (Leuven: Nauwelaerts, 1962).

Alexander of Aphrodisias. *On Aristotle's On Coming-to-be and Perishing 2.2–5*, ed. E. Gannagé (London: Duckworth, 2005).

Praeter commentaria scripta minora, ed. I. Bruns (Berlin: Reimer, 1887–92).

Traité de la providence (Peri pronoias), version arabe de Abū Bisr Matta ibn Yūnus, ed. and tr. P. Thillet (Lagrasse: Verdier, 2003).

Alexander of Hales. *Glossa in quattuor libros Sententiarum Petri Lombardi* (Quaracchi: Editiones Collegii S. Bonaventurae, 1951–7).

Quaestiones disputatae "Antequam esset frater" (Quaracchi: Editiones Collegii S. Bonaventurae, 1960).

Alexander of Hales *et al.* *Summa theologica* (Quaracchi: Editiones Collegii S. Bonaventurae, 1924–48).

Alexander Langeley. "Reportatio super librum primum Sententiarum," ed. R. Edwards (D.Phil. thesis: University of Oxford, 1999).

Alexander Neckam. *Commentum super Martianum*, ed. C. McDonough (Tavarnuzze: SISMEL, Edizioni del Galluzzo, 2006).

   De naturis rerum libri duo, with the Poem of the Same Author, De laudibus divinae sapientiae, ed. T. Wright (London: Longman, 1863).

   Novus Aesopus, ed. G. Garbugino (Genoa: Dipartimento di Archeologia, Filologia classica e loro Tradizioni, 1987).

   Speculum speculationum, ed. R. M. Thomson (London: British Academy, 1988).

   Suppletio defectuum. Alexander Neckam on Plants, Birds and Animals: A Supplement to the Laus Sapientie divine, Book I, ed. and tr. C. McDonough (Tavarnuzze: SISMEL, Edizioni del Galluzzo, 1999).

Alexander of Villa Dei. *Carmen de musica cum glossis*, ed. A. Seay (Colorado Springs, CO: Colorado College Music Press, 1977).

   Doctrinale, ed. D. Reichling (Berlin: A. Hofmann, 1893; repr. New York: Franklin, 1974).

   Ecclesiale, ed. L. R. Lind (Lawrence: University of Kansas Press, 1958).

   Le nombre d'or: étude de chronologie technique suivie du texte de la "Massa compoti" d'Alexandre de Villedieu, ed. and tr. W. E. van Wijk (The Hague: Nijhoff, 1936).

Alfred of Shareshill. *Commentary on the "Meteora" of Aristotle*, ed. J. K. Otte (Leiden: Brill, 1988)

   "Commentary on the pseudo-Aristotelian *De plantis*: A Critical Edition," ed. R. J. Long, *Mediaeval Studies* 47 (1985) 125–67.

   De motu cordis, ed. C. Baeumker (Münster: Aschendorff, 1923).

Alger of Liège. *De misericordia et iustitia*, ed. R. Kretzschmar (Sigmaringen: Thorbecke, 1985).

   De sacramentis corporis et sanguinis dominici (London: Nutt, 1873).

ʿAlī ibn al-ʿAbbās al-Majūsī. *The Complete Medical Art – Kāmil al-ṣināʿa al-ṭibbīyya*, ed. F. Sezgin (Frankfurt: Institute for the History of Arabic-Islamic Sciences, 1985).

   Liber medicinae, sive Regalis dispositio, tr. Stephan of Antioch (Venice, 1492).

   Pantegni, in Constantine the African (tr.) *Opera Omnia Ysaac* (Lyon, 1515).

ʿAllāma al-Ḥillī. *Al-Bāb al-ḥādī ʿashar*, ed. M. Muhaqqiq (Tehran: Muʾassasah-i Muṭālaʿāt-i, 1986).

   Al-Bāb al-ḥādī ʿashar, A Treatise on the Principles of Shīʿite Theology, tr. W. M. Miller (London: Royal Asiatic Society, 1928).

   Kashf al-murād fī Sharḥ tajrīd al-iʿtiqād (Beirut: Muʾassasat al-Aʿlamī, 1988).

Alphonsus Vargas. *Lectura in primum librum Sententiarum*, ed. Thomas de Spilimbergo (Venice, 1490; repr. Meriden Gravure, 1952).

   Quaestiones super libris Aristotelis de anima (Florence, 1477).

Ambrose. *De officiis*, ed. I. J. Davidson (Oxford: Oxford University Press, 2001).

   Opera, ed. K. Schenkl *et al.* (Prague: Tempsky, 1897–).

al-ʿĀmirī. *Feder, Tafel, Mensch: al-ʿĀmirīs Kitāb al-Fuṣūl fī l-maʿālim al-ilāhīya und die arabische Proklos-Rezeption im 10. Jh*, ed. and tr. E. Wakelnig (Leiden: Brill, 2006).

   A Muslim Philosopher on the Soul and its Fate: Al-ʿAmiri's Kitāb al-Amad ʿalā al-abad, ed. and tr. E. K. Rowson (New Haven, CT: American Oriental Society, 1988).

   Rasāʾil-i Abū al-Ḥasan ʿĀmirī, ed. S. Khalīfāt (Tehran: Markaz-i Nashr-i Dānishgāhī, 1996).

Ammonius. *In Porphyrii Isagogen sive V Voces*, ed. A. Busse (*Commentaria in Aristotelem Graeca* IV.3) (Berlin: Reimer, 1891).

Andrew of Neufchateau. *Primum scriptum Sententiarum* (Paris: J. Grantion, 1514).

Questions on an Ethics of Divine Commands, ed. J. Idziak (Notre Dame, IN: University of Notre Dame Press, 1997).

Tractatus de immaculata conceptione B. M. Virginis, ed. C. Piana *et al.* (Quaracchi: Editiones Collegii S. Bonaventurae, 1954).

Andrew of St. Victor. *Opera*, ed. C. H. Lohr *et al.* (Turnhout: Brepols, 1986–).

Anonymous. *Book for a Simple and Devout Woman*, ed. F. N. M. Diekstra (Groningen: Forsten, 1998).

Categoriae Decem, ed. L. Minio-Paluello (*Aristoteles Latinus* 1.1–5) (Bruges: Desclée de Brouwer, 1961).

Centiloquium, in William of Ockham, *Opera Philosophica* (St. Bonaventure, NY: St. Bonaventure University, 1988) VII: 384–95.

"The Cloud of Unknowing" and Related Treatises on Contemplative Prayer, ed. P. Hodgson (Salzburg: Institut für Anglistik und Amerikanistik, Universität Salzburg, 1982).

Compendium logicae porretanum, ed. S. Ebbesen *et al.*, *Cahiers de l'Institut du Moyen Age Grec et Latin* 46 (1983) 1–113.

De anima et potentiis eius, ed. R. A. Gauthier, *Revue des sciences philosophiques et théologiques* 66 (1982) 3–55.

De potentiis animae et obiectis, ed. D. A. Callus, *Recherches de théologie ancienne et médiévale* 19 (1952) 131–70.

Dialogus Eberardi et Ratii, ed. N. M. Häring, *Mediaeval Studies* 15 (1953) 243–89.

Glosa "Promisimus", ed. K. M. Fredborg, *Cahiers de l'Institut du Moyen Age Grec et Latin* 70 (1999) 81–228.

Grammatica Porretana, ed. K. M. Fredborg and C. H. Kneepkens, *Cahiers de l'Institut du Moyen Age Grec et Latin* 57 (1988) 11–67.

A Latin Dialogue on the Doctrine of Gilbert of Poitiers, ed. N. M. Häring, *Mediaeval Studies* 15 (1953) 243–89.

Lectura in librum de anima, ed. R. Gauthier (Grottaferrata: Collegii S. Bonaventurae, 1985).

Liber de pomo: versio latina Manfredi, ed. M. Plezia (Warsaw: Academia Scientiarum Polona, 1960).

Liber de spiritu et anima, tr. E. Leiva in B. McGinn (ed.) *Three Treatises on Man: A Cistercian Anthropology* (Kalamazoo, MI: Cistercian Publications, 1977).

Liber sex principiorum, ed. L. Minio-Paluello, *Aristoteles Latinus* I.7 (Bruges: Desclée de Brouwer, 1966).

Libri feudorum, in D. Godefroy *et al.* (eds.) *Corpus juris civilis romani* (Basel, 1756).

Logica "Cum sit nostra," in L. M. de Rijk (ed.) *Logica modernorum* (Assen: Van Gorcum, 1962–7) II.2: 413–51.

The Prose Salernitan Questions. An Anonymous Collection Dealing with Science and Medicine Written by an Englishman c. 1200 with an Appendix of Ten Related Collections, ed. B. Lawn (London: British Academy, 1979).

Quaestiones super Posteriora Analytica (ms. in Paris, Bibliothèque Nationale lat. 16096).

The Sea of Precious Virtue (Bahr Aavaʿidʾ): A Medieval Islamic Mirror for Princes, tr. J. Meisami (Salt Lake City: Utah University Press, 1991).

The Tractatus de successivis Attributed to William Ockham, ed. P. Boehner (St. Bonaventure, NY: Franciscan Institute, 1944).

Turba philosophorum, ed. J. Ruska, *Quellen und Studien zur Geschichte der Naturwissenschaften und der Medizin* 1 (1931).

Vida de Ramon Llull: les fonts escrites i la iconografia coetànies, ed. M. Batllori and J. N. Hillgarth (Barcelona: Associació de Bibliòfils de Barcelona, 1982).

Anselm of Canterbury. *Monologion and Proslogion with the Replies of Gaunilo and Anselm*, tr. T. Williams (Indianapolis: Hackett, 1996).

Proslogion, tr. M. J. Charlesworth (Notre Dame, IN: University of Notre Dame Press, 1965).

Opera omnia, ed. F. S. Schmitt (Edinburgh: Nelson, 1946; repr. Stuttgart: Frommann, 1968).

Anselm of Laon. *Anselms von Laon systematische Sentenzen*, ed. F. Bliemetzrieder (Münster: Aschendorff, 1919).

Glossa ordinaria: Pars 22, In Canticum canticorum, ed. M. Dove (Turnhout: Brepols, 1997).

Antoninus of Florence. *Confessionale "Defecerunt"* (Florence, 1490).

Summa theologica (Verona, 1740; repr. Graz: Akademische Druck, 1959).

Antonius Andreae. *Commentarium in libros Sententiarum* (Venice, 1572).

Quaestiones de tribus principiis rerum naturalium, ed. T. Penketh (Padua, 1475).

Quaestiones super duodecim libros Metaphysicae (Venice, 1491).

Scriptum in arte veteri et in divisionibus Boetii cum questionibus (Venice, 1508).

Antonius de Carlenis. *Four Questions on the Subalternation of the Sciences*, ed. S. Livesey (Philadelphia: American Philosophical Society, 1994).

Apuleius. *De philosophia libri*, ed. C. Moreschini (Stuttgart: Teubner, 1991).

Arethas of Caesarea. *Scholia on Porhyry's Isagoge and Aristotle's Categories (Codex Vaticanus Graecus 35)*, ed. M. Share (Athens: Academy of Athens, 1994).

Scripta minora, ed. L. G. Westerink (Leipzig: Teubner, 1968–72).

Aristotle. *Aristoteles Latinus*, ed. L. Minio-Paluello *et al.* (Bruges: Desclée de Brouwer, 1953–).

The Complete Works of Aristotle: The Revised Oxford Translation, ed. J. Barnes (Princeton, NJ: Princeton University Press, 1984).

De anima Books II and III, tr. D. W. Hamlyn, 2nd edn (Oxford: Clarendon Press, 1993).

De anima, tr. [Hebrew] Zerahyah ben Isaac ben Shealtiel Hen, ed. G. Bos (Leiden: Brill, 1994).

Al-Naṣṣ al-kāmil li-manṭiq Arisṭū, ed. F. Jabr (Beirut: Dār al-Fikr al-Lunānī, 1999).

The Nicomachean Ethics, tr. T. Irwin (Indianapolis, IN: Hackett, 1985).

Omnia quae extant opera . . . additis . . . Averrois Cordubensis in ea opera omnes qui ad nos pervenere commentarii (Venice, 1550–2).

Otot ha-shamayim: Samuel ibn Tibbon's Hebrew Version of Aristotle's Meteorology, ed. and tr. R. Fontaine (Leiden: Brill, 1995).

Politica, ed. F. Susemihl and O. Immisch (Leipzig: Teubner, 1929).

Posterior Analytics, tr. J. Barnes, 2nd edn (Oxford: Clarendon Press, 1993).

Sefer ha-middot le-Aristutalis, ed. I. Satanow (Berlin: Orientalische Buchdruckerey, 1790).

"La traduzione arabo-ebraica del *De generatione et corruptione* di Aristotele," ed. A. Tessier, in *Atti dell'Accademia Nazionale dei Lincei: memorie della Classe di Scienze Moralis* VIII 28 (1984) 5–122.

Armand of Bellevue. "Armand of Belvézer on Eschatology: An Edition of his *Responsiones ad 19 Articulos* (1333)," ed. F. A. van Liere, *Archivium Historicum Ordinis Praedicatorum* 62 (1992) 7–134.

De declaratione difficilium terminorum theologie philosophie atque logice (Lyon, 1500).

Arnald of Villanova. *Espiritual*, ed. J. Mensa (Barcelona: Institut d'Estudis Catalans, 1994).

Obres catalanes, ed. M. Batllori (Barcelona: Editorial Barcino, 1947).

Opera medicina omnia, ed. L. García Ballester *et al.* (Barcelona: Institut d'Estudis Catalans, 1975–88).

Opera omnia (Lyon, 1504).

Regimen sanitatis Salerni, this booke teaching all people to gouerne them in health, tr. T. Paynall (London: T. Creede, 1597).

Scripta spiritualia, ed. J. Carreras y Artau (Barcelona: Institut d'Estudis Catalans, 1971).

Arnold of Saxony. *Die Encyklopädiedes Arnoldus Saxo, zum ersten Mal nach einem Erfurter Codex*, ed. E. Stange (Erfurt: F. Bartholomäus, 1905–7).

al-Ashʿarī. *Al-Ibānaʿan uṣūl ad-dīyāna (The Elucidation of Islam's Foundation)*, tr. W. Klein (New Haven, CT: American Oriental Society, 1940).

Maqālāt al-islāmiyyīn, ed. H. Ritter, 2nd edn (Wiesbaden: Steiner, 1963).

The Theology of al-Ashʿari: The Arabic Texts of al-Ashʿari's Kitāb al-Lumaʿ and Risālat istiḥsān al-khawḍ fī ʿilm al-kalām, ed. and tr. R. McCarthy (Beirut: Catholic Press, 1953).

Astesanus of Asti. *Summa de casibus conscientiae* (Venice, 1478).

Augustine. *Augoustinou Peri Triados biblia pentekaideka, haper ek tēs tōn Latinōn dialektou eis tēn Hellada metēnegke Maximos ho Planoudēs*, ed. M. Papathomopoulos *et al.* (Athens: Academy of Athens, 1995).

Commentary on the Lord's Sermon on the Mount, tr. D. J. Kavanagh (Washington, DC: Catholic University of America Press, 1951).

Confessions, tr. E. B. Pusey (London: Dent, 1907).

Opera (Corpus Christianorum, series latina) (Turnhout: Brepols, 1954–81).

Opera (Corpus scriptorum ecclesiasticorum latinorum) (Vienna: Tempsky, 1887).

Prochoros Kydones' Übersetzungen von Augustinus, De libero arbitrio I 1–90 und Ps.-Augustinus, De decem plagis Aegyptiorum (lateinisch-griechisch) ed. H. Hunger (Vienna: Österreichischen Akademie der Wissenschaften, 1990).

Augustine of Ancona. *Summa de potestate ecclesiastica ad Ioannem XXII* (Augsburg, 1473).

Tractatus brevis de duplici potestate prelatorum et laicorum, ed. R. Scholz, *Die Publizistik zur Zeit Philippe des Schönen und Bonifaz VIII* (Stuttgart: Enke, 1903; repr. Amsterdam, 1962).

Aulus Gellius. *A. Gellii Noctae Atticae*, ed. P. K. Marshall (Oxford: Clarendon Press, 1968).

Averroes. *Aristotelis opera cum Averrois commentariis* (Venice, 1562; repr. Frankfurt: Minerva, 1962).

La béatitude de l'âme, ed. M. Geoffroy and C. Steel (Paris: Vrin, 2001).

Beʾur Even Rushd le-Sefer ha-halasah le-Aristu, ed. J. Goldenthal (Leipzig: H. Franke, 1842).

The Book of the Decisive Treatise Determining the Connection Between the Law and Wisdom; and Epistle Dedicatory, ed. and tr. C. E. Butterworth (Provo, UT: Brigham Young University Press, 2001).

Commentarium magnum in Aristotelis De anima libros, ed. F. S. Crawford (Cambridge, MA: Mediaeval Academy of America, 1953).

Commentarium magnum in Aristotelis Physicorum librum septimum (Vindobonensis, lat. 2334) (Paderborn: Schöningh, 2007).

Commentarium medium et Epitome in Aristotelis De generatione et corruptione libros, ed. S. Kurland (Cambridge, MA: Medieval Academy of America, 1958).

Commentarium medium in Porphyrii Isagogen et Aristotelis Categorias, ed. H. Davidson (Cambridge, MA: Medieval Academy of America, 1969).

The Commentary of Averroes on Aristotle's De anima in the Hebrew Translation of Moses b. Samuel Ibn Tibbon, ed. A. L. Ivry (Jerusalem: Israel Academy of Arts and Sciences, 2003).

"Commentary on Alexander of Aphrodisias' *Treatise On the Intellect* (in Hebrew)," ed. H. Davidson, *Jerusalem Studies in Jewish Thought* 7 (1988) 205–17.

Commentary on Aristotle's Book on the Heaven and the Universe: Sharḥ Kitāb fī al-samāʾ wa-al-ʿālam, ed. G. Endress (Frankfurt: Publications of the Institute for the History of Arabic-Islamic Science, 1994).

Commentary on Plato's Republic, ed. E. I. J. Rosenthal, 2nd edn (Cambridge: Cambridge University Press, 1966).

Il commento medio di Averroè alla Poetica di Aristotele, ed. F. Lasinio (Pisa: Annali delle Università Toscane, 1872).

Il commento medio di Averroè alla Retorica, ed. F. Lasinio (Florence: Le Monnier, 1877).

Commentum magnum super libro De celo et mundo Aristotelis, ed. F. J. Carmody and R. Arnzen (Leuven: Peeters, 2003).

Commentum medium in Categorias Aristotelis, tr. William of Luna, ed. R. Hissette (Leuven: Peeters, forthcoming).

Commentum medium super libro Peri hermeneias Aristotelis, tr. William of Luna (?), ed. R. Hissette (Leuven: Peeters, 1996).

Compendia librorum Aristotelis qui Parva naturalia vocantur, ed. [Arabic] H. Blumberg (Cambridge, MA: Mediaeval Academy of America, 1972).

Compendia librorum Aristotelis qui Parva naturalia vocantur, ed. [Hebrew] H. Blumberg (Cambridge, MA: Mediaeval Academy of America, 1954).

Compendia librorum Aristotelis qui Parva naturalia vocantur, ed. [Latin] A. L. Shields (Cambridge, MA: Mediaeval Academy of America, 1949).

De separatione primi principii, ed. C. Steel and G. Guldentops, *Recherches de théologie et philosophie médiévales* 64 (1997) 86–135.

De substantia orbis: Critical Edition of the Hebrew Text with English Translation and Commentary, ed. A. Hyman (Cambridge, MA: Medieval Academy of America, 1986).

Epitome of Parva naturalia, tr. H. Blumberg (Cambridge, MA: Mediaeval Academy of America, 1961).

Faith and Reason in Islam: Averroes' Exposition of Religious Arguments, tr. I. Najjar (Oxford: Oneworld, 2001).

Al-Kashf ʿan manāhij al-adillah fī ʿaqāʾid al-millah, ed. M. ʿĀbid al-Jābirī (Beirut: Markaz Dirāsāt al-Waḥdah al-ʿArabīyah, 1998).

Kol melʾeket higgayon le-Aristotelo, ed. J. Marcaria (Riva di Trento: A. Braun, 1559).

Long Commentary on the De anima of Aristotle, tr. R. C. Taylor (New Haven, CT: Yale University Press, 2009).

Middle Commentary on Aristotle's De anima, ed. A. Ivry (Provo, UT: Brigham Young University Press, 2002).

Middle Commentary on Aristotle's Nicomachean Ethics in the Hebrew Version of Samuel ben Judah, ed. L. V. Berman (Jerusalem: Israel Academy of Arts and Sciences, 1999).

Qizzurey Even Roshd ʿal Shemaʿ tivʿi le-Aristoteles, ed. J. Marcaria (Riva di Trento: A. Braun, 1559).

Sharḥ al-Burhān li-Arisṭū wa-Talkhīṣ al-Burhān, ed. ʿA. Badawī (Kuwait: Qism al-Turāth al-ʿArabi, 1984).

Tafsīr mā baʿd al-ṭabīʿa, ed. M. Bouyges (Beirut: Imprimerie Catholique, 1938–52).

Tahāfut al-tahāfut, ed. M. Bouyges (Beirut: Imprimerie Catholique, 1930).

Tahāfut al-tahāfut (The Incoherence of the Incoherence), tr. S. van den Bergh (London: Luzac, 1954; repr. 1978).

Talkhīṣ Kitāb al-nafs, ed. A. F. al-Ahwānī (Cairo: Maktabat al-Nahḍah al-Miṣrīyah, 1950).

Avicenna. *Avicenna's De anima (Arabic Text): Being the Psychological Part of* Kitab al-Shifāʾ, ed. F. Rahman (London: Oxford University Press, 1959).

Avicenna's Psychology: An English Translation of Kitāb al-najāt*, Book II, Chapter VI*, tr. F. Rahman (London: Oxford University Press, 1952).

Canon of Medicine [Bk. I] in O. C. Gruner (tr.) *A Treatise on the Canon of Medicine of Avicenna* (London: Luzac, 1930; rev. edn Chicago: KAZI, 1999).

De celo et mundo, ed. M. Renaud, *Bulletin de philosophie médiévale* 15 (1973) 92–130.

De congelatione et conglutinatione lapidum, ed. E. J. Holmyard and D. C. Mandeville (Paris: Guenther, 1927; repr. New York: AMS Press, 1982).

De medicinis cordialibus, in S. Van Riet (ed.) *Liber de anima seu Sextus de naturalibus IV–V* (Leiden: Brill, 1972) 187–210.

"Essay on the Secret of Destiny," in G. F. Hourani (tr.) *Reason and Tradition in Islamic Ethics* (Cambridge: Cambridge University Press, 1985) 229–31.

Al-ishārāt wa-al-tanbīhāt, ed. J. Forget (Leiden: Brill, 1892).

Al-ishārāt wa-al-tanbīhāt, ed. S. Dunyā (Cairo: Dār al-Maʿārif, 1957–60).

Liber Canonis (Venice, 1507; repr. Hildesheim: Olms, 1964).

Liber de anima seu Sextus de naturalibus, ed. S. Van Riet (*Avicenna Latinus*) (Leiden: Brill, 1968–72).

Liber de philosophia prima sive scientia divina, ed. S. Van Riet (*Avicenna Latinus*) (Leuven: Peeters, 1977–80).

Liber primus naturalium, ed. S. Van Riet *et al.* (*Avicenna Latinus*) (Louvain-la-Neuve: Peeters, 1992–2006).

Liber quartus naturalium de actionibus et passionibus qualitatum primarum, ed. S. Van Riet (*Avicenna Latinus*) (Louvain-la-Neuve: Peeters, 1989).

Liber tertius naturalium de generatione et corruptione, ed. S. Van Riet (*Avicenna Latinus*) (Louvain-la-Neuve: Peeters, 1987).

The Life of Ibn Sina, ed. and tr. W. E. Gohlman (Albany: State University of New York Press, 1974).

Le livre des directives et remarques (Kitāb al-Ísarat wa l-tanbihat), tr. A. M. Goichon (Paris: Vrin, 1951).

Maqāla fī al-nafs ʿalā sunnat al-ikhtiṣār [*Compendium on the Soul*], ed. S. Landauer, "Die Psychologie des Ibn Sīnā," *Zeitschrift der deutschen morgenländischen Gesellschaft* 29 (1875) 335–418.

The Metaphysics of "The Healing", tr. M. Marmura (Provo, UT: Brigham Young University Press, 2005).

Al-Najāt, ed. M. Dānishpāzhūh (Tehran: Dānishgāh-yi Tihrān, 1985).

The Propositional Logic of Ibn Sina, ed. N. Shehaby (Dordrecht: Reidel, 1973).

Al-Qānūn fī al-ṭibb (Cairo, 1877; repr. Baghdad, 1970).

Remarks and Admonitions, Part 1: Logic, tr. S. C. Inati (Toronto: Pontifical Institute for Mediaeval Studies, 1984).

Remarks and Admonitions: Part 4, tr. S. C. Inati (London: Kegan Paul, 1996).

Al-Shifāʾ, ed. I. Madkur and S. Zāyid (Cairo: Hayʾa al-miṣriyya al-ʿāmma li-al-kitāb, 1983).

Al-Shifāʾ: al-Ilāhiyyāt, ed. M. Y. Mūsā, S. Dunyā and S. Zāʾid (Cairo: al-Hayʾah al-ʿĀmmah li-Shuʾūn al-Maṭābi al-Amirīyah, 1960).

Sufficientia, in *Opera philosophica* (Venice, [etc.]; repr. Leuven: Édition de la bibliothèque S.J., 1961).

Al-taʿlīqāt [*Annotations*], ed. ʿA. Badawī (Cairo: Hayʾa al-miṣriya al-ʿāmma li-al-kitāb, 1973).

Azo. *Lectura super Codicem* (Paris, 1577; repr. Turin: Ex officina Erasmiana, 1966).

Select Passages from the Works of Bracton and Azo, ed. F. W. Maitland (London: Quaritch, 1895; repr. Abingdon: Professional Books, 1978).

Summa super Codicem (Turin, 1578; repr. Turin: Ex officina Erasmiana, 1966).

Babin, François. *Journal ou relation fidelle de tout ce qui s'est passé dans l'université d'Angers au sujet de la philosophie de Des Carthes en l'execution des ordres du Roy pendant les années 1675, 1676, 1677, et 1678* (Angers, 1679).

Bacon, Francis. *De principiis atque originibus*, in G. Rees (ed.) *Philosophical Studies c.1611–c.1619* (*The Oxford Francis Bacon VI*) (Oxford: Clarendon Press, 1996) 195–267.

al-Baghdādī, ʿAbd al-Laṭīf. *Bearbeitung von Buch Lambda der aristotelischen Metaphysik*, ed. and tr. A. Neuwirth (Wiesbaden: Steiner, 1976).

al-Baghdādī, Abū al-Barakāt. *Kitāb al-muʿtabar* (Hyderabad: Osmania Publication Bureau, 1938–9).

Bahmanyār. *Behmenjār ben el-Marzubān, der persische Aristoteliker aus Avicenna's Schule*, ed. S. Poper (Leipzig: L. Voss, 1851).

  Kitāb al-taḥṣīl, ed. M. Mutahhari (Tehran: Tehran University Press, 1970).

Baḥya ibn Paqūdā. *The Book of Direction to the Duties of the Heart*, tr. M. Mansoor (London: Routledge, 1973).

  Al-Hidāya ʾilā farāʾid al-qulūb, ed. A. S. Yahuda (Leiden: Brill, 1912).

Baldus de Ubaldis. *Commentaria omnia* (Venice: Juntas, 1599; repr. Goldbach: Keip Verlag, 2004).

  Consiliorum, sive responsorum, volumen primum [-qvintum] (Venice, 1575).

al-Bāqillānī. *Kitāb al-tamhīd*, ed. R. J. McCarthy (Beirut: Librairie Orientale, 1957).

  A Tenth-Century Document of Arabic Literary Theory and Criticism, tr. G. von Grunebaum (Chicago: University of Chicago Press, 1950).

Barlaam the Calabrian. *Epistole a Palamas*, ed. and tr. A. Phyrigos (Rome: Catholic Book Agency, 1975).

  Logistikē, ed. and tr. P. Carelos (Athens: Akademia Athenon, 1996).

  Opere contro i Latini, ed. and tr. A. Phyrigos (Vatican: Biblioteca Apostolica Vaticana, 1998).

  Solutions Addressed to George Lapithes, ed. R. E. Sinkewicz, *Mediaeval Studies* 43 (1981) 151–217.

  Traités sur les éclipses de soleil de 1331 et 1337, ed. J. Mogenet *et al.* (Leuven: Peeters, 1977).

Bartholomaeus Anglicus. *De rerum proprietatibus* (Frankfurt, 1601; repr. Frankfurt: Minerva, 1964).

  On the Properties of Soul and Body = De proprietatibus rerum, libri III et IV, ed. R. J. Long (Toronto: Pontifical Institute of Mediaeval Studies, 1979).

  On the Properties of Things, tr. John Trevisa (Oxford: Clarendon Press, 1975–88).

Bartholomew of Bologna. *Quaestiones disputatae de fide*, ed. M. Mückshoff (Münster: Aschendorff, 1940) 3–104.

  Tractatus de luce, ed. I. Squadrani, *Antonianum* 7 (1932) 139–238; 337–76; 465–94.

Bartholomew of Bruges. *Commentarius in Aristotelis Poeticam*, in G. Daham (ed.) "Notes et textes sur la poétique au moyen âge," *Archives d'histoire doctrinale et littéraire du moyen âge* 47 (1980) 228–39.

Bartolus of Sassoferrato. *Opera omnia* (Lyon, 1481–2).

Basil of Caesarea. *Eustathius ancienne version latine des neuf homélies sur l'Hexaëmeron de Basile de Césarée*, ed. E. Amand de Mendieta and S. Y. Rudberg (Berlin: Akademie Verlag, 1958).

Bayle, Pierre. *Historical and Critical Dictionary: Selections*, tr. R. Popkin (Indianapolis, IN: Hackett, 1991).

Bede. *A Biblical Miscellany*, tr. A. Holder and W. Foley (Liverpool: Liverpool University Press, 1999).

  Opera, ed. C. W. Jones and D. Hurst (Turnhout: Brepols, 1955–).

  The Reckoning of Time, tr. F. Wallis (Liverpool: Liverpool University Press, 1999).

Benedict of Nursia. *Regula (Corpus scriptorum ecclesiasticorum latinorum 75)* (Vienna: Tempsky, 1977).

Berengar of Tours. *Rescriptum contra Lanfrannum*, ed. R. B. C. Huygens (Turnhout: Brepols, 1988).

Bernard of Chartres. *The "Glosae super Platonem" of Bernard of Chartres*, ed. P. E. Dutton (Toronto: Pontifical Institute of Mediaeval Studies, 1991).

Bernard of Clairvaux. *Opera*, ed. J. Leclercq *et al.* (Rome: Editiones Cistercienses, 1957–77).

  Works (Kalamazoo, MI: Cistercian Publications, 1973–80).

Bernard Silvestris. *The Commentary on Martianus Capella's De nuptiis Philologiae et Mercurii Attributed to Bernardus Silvestris*, ed. H. H. Westra (Toronto: Pontifical Institute of Mediaeval Studies, 1986).

   The Commentary on the First Six Books of the Aeneid of Vergil, ed. J. W. Jones and E. F. Jones (Lincoln: University of Nebraska Press, 1977).

   The Commentary on the First Six Books of the Aeneid of Vergil, tr. E. G. Schreiber and T. E. Maresca (Lincoln: University of Nebraska Press, 1979).

   Cosmographia, ed. P. Dronke (Leiden: Brill, 1978).

   The Cosmographia of Bernardus Silvestris, tr. W. Wetherbee (New York: Columbia University Press, 1973).

   Mathematicus, ed. and tr. D. M. Stone, *Archives d'histoire doctrinale et littéraire du moyen âge* 63 (1996) 209–83.

Bernard of Trilia. *Quaestiones disputatae de cognitione animae separatae*, ed. P. Künzle (Bern: Francke, 1969).

Bernardino of Siena. *Opera omnia* (Quaracchi: Editiones Collegii S. Bonaventurae, 1950–65).

Berthold of Moosburg. *Expositio super Elementationem theologicam Procli*, ed. M. R. Pagnoni-Sturlese and L. Sturlese (Hamburg: Meiner, 1984–).

Biblia latina cum glossa ordinaria (Strasbourg, 1480–1; repr. Turnhout: Brepols, 1992).

Biblia sacra juxta vulgatam Clementinam (Rome: Societatis S. Joannis Evangelis, 1927; repr. 1956).

al-Biṭrūjī. *De motibus coelorum*, ed. F. J. Carmody (Berkeley: University of California Press, 1952).

Blasius of Parma. "La 'quaestio de intensione et remissione formarum' di Biagio Pelacani da Parma," ed. G. Federici-Vescovini, *Physis: Rivista internazionale di storia della scienza* 31 (1994) 433–535.

   Quaestiones circa Tractatum proportionum magistri Thome Braduardini, ed. J. Biard and S. Rommevaux (Paris: Vrin, 2006).

   Les quaestiones de anima, ed. G. Federici Vescovini (Florence: Olschki, 1974).

   Questiones super Tractatus logice Magistri Petri Hispani, ed. J. Biard and G. Federici Vescovini (Paris: Vrin, 2001).

Boethius. *Eine byzantinische Übersetzung von Boethius' De hypotheticis syllogismis*, ed. D. Z. Nikitas (Göttingen: Vandenhoeck und Ruprecht, 1982).

   Contra Eutychen, in H. F. Stewart and E. K. Rand (eds.) *The Theological Tractates* (Cambridge, MA: Harvard University Press, 1918).

   De consolatione philosophiae; Opuscula theologica, ed. C. Moreschini (Munich: K. G. Saur, 2000).

   De consolatione philosophiae: traduction grecque de Maxime Planude, ed. M. Papathomopoulos (Athens: Academy of Athens, 1999).

   De consolatione philosophiae: traduzione ebraica di 'Azaria ben r. Joseph Ibn Abba Mari detto Bonafous Bonfil Astruc, ed. S. J. Sierra (Turin and Jerusalem: Istituto di Studi Ebraici and Scuola Rabbinica Margulies-Disegni, 1967).

   De divisione, ed. J. Magee (Leiden: Brill, 1998).

   De hebdomadibus [*Quomodo substantiae*], in H. F. Stewart and E. K. Rand (eds.) *The Theological Tractates* (Cambridge, MA: Harvard University Press, 1918).

   De hypotheticis syllogismis, ed. L. Obertello (Brescia: Paideia, 1969).

   De institutione arithmetica, De institutione musica, ed. G. Friedlein (Leipzig: Teubner, 1867; repr. Frankfurt: Minerva, 1966).

   De topicis differentiis kai hoi metaphraseis tōn Manouēl Holobōlou kai Prochorou Kydōnē, ed. D. Z. Nikitas (Athens: Academy of Athens, 1990).

   De Trinitate, in H. F. Stewart and E. K. Rand (eds.) *The Theological Tractates* (Cambridge, MA: Harvard University Press, 1918).

In librum Aristotelis Peri hermeneias commentarii editio duplex, ed. K. Meiser (Leipzig: Teubner, 1877–80).

In Porphyrii Isagogen commentorum editio duplex, ed. S. Brandt (*Corpus Scriptorum Ecclesiasticorum Latinorum*, vol. XLVIII) (Vienna: F. Tempsky, 1906).

"Manuel Calecas' Translation of Boethius' *De Trinitate:* Introduction, New Critical Edition, Index Latinograecitatis," ed. J. A. Demetracopoulos, *Synthesis Philosophica* 39 (2005) 83–118.

Opera omnia, in J.-P. Migne (ed.) *Patrologiae cursus completus: series latina* (Paris, 1844–91) vols. LXIII–LXIV.

Opuscula sacra, ed. A. Galonnier (Leuven: Peeters, 2007).

Philosophiae consolatio, ed. L. Bieler (*Corpus Christianorum, Series latina* XCIV) (Turnhout: Brepols, 1957).

Boethius of Dacia. *Godfrey of Fontaines's Abridgement of Boethius of Dacia's Modi significandi sive Quaestiones super Priscianum majorem*, tr. A. C. Senape McDermott (Amsterdam: Benjamins, 1980).

On the Supreme Good, On the Eternity of the World, On Dreams, ed. J. F. Wippel (Toronto: Pontifical Institute of Mediaeval Studies, 1987).

Opera, ed. J. Pinborg *et al.* (Copenhagen: DSL/Gad, 1969–).

Bonaventure. *Breviloquium*, tr. J. de Vinck (Paterson, NJ: St. Anthony Guild, 1960–70).

Disputed Questions on the Knowledge of Christ, ed. Z. Hayes (New York: St. Bonaventure Press, 1992).

Disputed Questions on the Mystery of the Trinity, ed. Z. Hayes (New York: St. Bonaventure Press, 1979).

The Journey of the Mind to God, tr. P. Boehner, ed. S. Brown (Indianapolis, IN: Hackett, 1993).

On the Eternity of the World, tr. C. Vollert *et al.* (Milwaukee, WI: Marquette University Press, 1964).

On the Reduction of the Arts to Theology, tr. Z. Hayes (St. Bonaventure, NY: Franciscan Institute, 1996).

Opera omnia (Quaracchi: Editiones Collegii S. Bonaventurae, 1882–1902).

Bouju, Théophraste. *Corps de toute la philosophie* (Paris: Vesue Marc Orry, 1614).

Boyle, Robert. *The Works of Robert Boyle*, ed. M. Hunter and E. B. Davis (London: Pickering and Chatto, 1999–2000).

Brunetto Latini. *Li livres dou tresor*, ed. and tr. F. J. Carmody (Berkeley: University of California Press, 1948; repr. Geneva: Slatkine, 1975).

La rettorica, ed. F. Maggini (Florence: Galletti e Cocci, 1915).

Il tesoretto = The Little Treasure, ed. and tr. J. B. Holloway (New York: Garland, 1981).

Bryson. *Der OIKONOMIKOΣ der Neupythagoräers Bryson und sein Einfluss auf die islamiche Wissenschaft*, ed. M. Plessner (Heidelberg: Winter, 1928).

Bulgarus. *Ad digestorum titulum de diversis regulis iuris antiqui commentarius*, ed. F. W. K. Beckhaus (Bonn: Henry und Cohen, 1856; repr. Frankfurt: Minerva, 1967).

Cajetan (Thomas de Vio). *Scripta philosophica: commentaria in Praedicamenta Aristotelis*, ed. M. H. Laurent (Rome: Angelicum, 1939).

Cajetan of Thiene. "Declaratio super tractatu Hentisberi Regularum," in *Tractatus Gulielmi Hentisberi de sensu composito et diviso* (Venice, 1494).

Expositio in libros Aristotelis De anima (Padua, 1475).

Expositio in libros De caelo et mundo (Padua, 1476).

Expositio in libros meterologicorum Aristotelis (Padua: Petrus Maufer, 1476).

Recollecte super octo libros Physicorum Aristotelis (Treviso: Johannes de Hassia, 1476).

    Recollectae super Sophismatibus Hentisberi, in *Tractatus Gulielmi Hentisberi de sensu composito et diviso* (Venice, 1494).

    Tractatus de reactione per Gaetanum de Thienis (Venice: Joannis de Foriivio et Gregorii Fratrum, 1491).

Cassiodorus. *Institutiones*, ed. R. A. B. Mynors (Oxford: Clarendon Press, 1937; repr. 1961).

    Opera, ed. Å. J. Fridh and J. W. Halporn (*Corpus Christianorum, Series Latina 96–98*) (Turnhout: Brepols, 1958–73).

Catherine of Siena. *The Dialogue*, tr. S. Noffke (New York: Paulist Press, 1980).

    Le lettere di S. Caterina da Siena, ed. P. Misciattelli and N. Tommaseo (Siena: G. Bentivoglio, 1913–22).

    The Letters of Catherine of Siena, tr. S. Noffke (Tempe, AZ: Arizona Center for Medieval and Renaissance Studies, 2000–).

    Libro della divina dottrina, ed. M. Fiorilli and S. Caramella, 2nd edn (Bari: G. Laterza, 1928).

Christine de Pizan. *The Book of the Body Politic*, tr. K. L. Forhan (Cambridge: Cambridge University Press, 1994).

    The Book of the City of Ladies, tr. E. J. Richards (New York: Persea Books, 1982).

    Le livre de la cité des dames, ed. E. Hicks and T. Moreau (Paris: Stock, 1986).

    Le livre des trois vertus, ed. C. C. Willard and E. Hicks (Paris: Champion, 1989).

    Le livre du corps de policie, ed. A. J. Kennedy (Paris: Champion, 1998).

    The Selected Writings of Christine de Pizan, tr. R. Blumenfeld-Kosinski (New York: Norton, 1997).

    The Treasure of the City of Ladies, or, The Book of the Three Virtues, tr. S. Lawson (Harmondsworth: Penguin, 1985).

    The Writings of Christine de Pizan, tr. C. C. Willard (New York: Persea Books, 1994).

Cicero. *De divinatione; De fato; Timaeus*, ed. O. Plasberg and W. Ax (Leipzig: Teubner, 1938).

    Liber De senectute in Graecum translatus, tr. Theodorus Gazes, ed. G. Salanitro (Leipzig: Teubner, 1987).

    Scripta quae manserunt omnia, ed. W. Trillitzsch (Leipzig: Teubner, 1964–).

    Somnium Scipionis in graecum translatum, tr. Maximos Planudes, ed. A. Pavano (Rome: Gruppo editoriale internazionale, 1992).

    Tusculanae Disputationes, ed. M. Pohlenz (Leipzig: Teubner, 1918).

Clarembald of Arras. *The Boethian Commentaries*, tr. D. B. George and J. R. Fortin (Notre Dame, IN: University of Notre Dame Press, 2002).

    Life and Works of Clarembald of Arras, a Twelfth-Century Master of the School of Chartres, ed. N. M. Häring (Toronto: Pontifical Institute of Mediaeval Studies, 1965).

Columban. *Opera*, ed. G. S. M. Walker (Dublin: Dublin Institute for Advanced Studies, 1957).

Daniel of Morley. *Philosophia*, ed. G. Maurach, *Mittellateinisches Jahrbuch* 14 (1979) 204–55.

Dante Alighieri. *Convivio*, tr. R. Lansing (New York: Garland, 1990).

    The Divine Comedy, tr. J. Ciardi (New York: Norton, 1977).

    Monarchia, ed. and tr. P. Shaw (Cambridge: Cambridge University Press, 1995).

    Opere minori, ed. C. Vasoli *et al.* (Milan: R. Ricciardi, 1979–84).

d'Argentré, Charles Duplessis. *Collectio judiciorum de novis erroribus* (Paris: apud A. Cailleau, 1728–36; repr. Brussels: Culture et Civilisation, 1963).

David. *Prolegomena et in Porphyrii Isagogen commentarium*, ed. A. Busse (*Commentaria in Aristotelem Graeca* XVIII.2) (Berlin: Reimber, 1904).

David of Dinant. *Davidis de Dinanto Quaternulorum fragmenta*, ed. M. Kurdziałek (Warsaw: Panstwowe Wydawnictwo Naukowe, 1963).

    I testi di David di Dinant: filosofia della natura e metafisica a confronto col pensiero antico, ed. E. Casadei (Spoleto: Centro italiano di studi sull'alto medioevo, 2008).

Dāwūd ibn Marwān. *Twenty Chapters (ʿIshrūn maqāla)*, ed. and tr. S. Stroumsa (New York: Brill, 1989).

de Launoy, Jean. *De varia Aristotelis fortuna in Academia Parisiensi*, 2nd edn (Hages-Comitum: Apud Adrianum Vlacq, 1656).

Demetrios Kydones. *Briefe*, tr. F. H. Tinnefeld (Stuttgart: Hiersemann, 1981–2003).
  Correspondance, ed. R. J. Loenertz (Rome: Biblioteca Apostolica Vaticana, 1956–60).
  De contemnenda morte oratio, ed. H. Deckelmann (Lepizig: Teubner, 1901).
  Ending the Byzantine Greek Schism: The 14th c. Apologia of Demetrios Kydones for Unity with Rome, tr. J. Likoudis (New Rochelle, NY: Catholics United for the Faith, 1983).

Denys the Carthusian. *Opera omnia* (Montreuil: Typis Cartusiae S. M. de Pratis, 1896–1935).
  Opera selecta, ed. K. Emery (Turnhout: Brepols, 1991–).

Descartes, René. *Œuvres de Descartes*, ed. C. Adam and P. Tannery (Paris: Cerf, 1897; repr. Paris: Vrin, 1996).

Dietrich of Freiberg. "On the Rainbow and Radiant Impressions," in W. A. Wallace and E. Grant (eds.) *A Source Book in Medieval Science* (Cambridge, MA: Harvard University Press, 1974).
  Opera omnia, ed. K. Flasch (Hamburg: Meiner, 1977–85).
  Treatise on the Intellect and the Intelligible, tr. M. Führer (Milwaukee, WI: Marquette University Press, 1992).

Diogenes Laertius. *Vitae philosophorum*, ed. M. Marcovich (Leipzig: Teubner, 1999).

Domingo de Soto. *Commentaria in octo libros Physicorum Aristotelis* (Burgos, 1665).

Dominicus Gundisalvi. *De anima*, in T. J. Muckle, *Mediaeval Studies* 2 (1940) 23–103.
  De divisione philosophiae, ed. L. Baur (Münster: Aschendorff, 1903).
  De processione mundi, ed. G. Bülow (Münster: Aschendorff, 1925).
  De scientiis, ed. M. Alonso Alonso (Madrid: Escuelas de Estudios Arabes, 1954).
  De unitate, ed. P. Correns (Münster: Aschendorff, 1891).
  The Procession of the World, ed. J. Laumakis (Milwaukee, WI: Marquette University Press, 2002).

Duhamel, Jean-Baptiste. *Philosophia universalis, sive commentarius in universam Aristotelis philosophiam, ad usum scholarum comparatam* (Paris: C. Thiboust, 1705).

Dūnash ibn Tāmīm. *Le commentaire sur le "Livre de la création" de Dūnaš ben Tāmīm de Kairouan (Xᵉ siècle)*, ed. and tr. G. Vajda and P. Fenton, rev. edn (Leuven: Peeters, 2002).

Durand of St. Pourçain. *In Petri Lombardi Sententias theologicas commentarium libri quatuor* (Venice: ex typographia Guerraea, 1571; repr. Ridgewood, NJ: Gregg, 1964).
  Quaestio de natura cognitionis et disputatio cum anonymo quodam, ed. J. Koch (Münster: Aschendorff, 1935).
  Quaestiones de habitibus, ed J. Koch (Münster: Aschendorff, 1930).
  Quodlibeta avenionensia tria, additis correctionibus Hervei Natalis supra dicta Durandi in primo quolibet, ed. P. T. Stella (Zurich: Pas-Verlag, 1965).
  Quodlibeta Paris I (Q.I-Q.IV), ed. T. Takada (Kyoto: Takada, 1968).

Durandellus. *Evidentiae contra Durandum*, ed. P. T. Stella (Tübingen: Francke, 2003).

Eadmer. *The Life of St Anselm, Archbishop of Canterbury*, ed. R. W. Southern (London: Nelson, 1962).

Eckhart of Hochheim. *Die deutschen und lateinischen Werke* (Stuttgart: Kohlhammer, 1936–).
  Eine lateinische Rechtfertigungsschrift des Meister Eckhart, ed. A. Daniels (Münster: Aschendorff, 1923).
  Utrum in deo sit idem esse et intelligere, ed. B. Mojsisch, in *Bochumer Philosophisches Jahrbuch für Antike und Mittelalter* 4/1999 (2000) 179–97.

Elias. *In Porphyrii Isagogen et Aristotelis Categorias commentaria*, ed. A. Busse (*Commentaria in Aristotelem Graeca* XVIII.1) (Berlin: Reimer, 1900).

Epictetus. *Enchiridion*, tr. G. Long (Amherst, NY: Prometheus Books, 1991).

Euclid. *Elements*, tr. Hermann of Carinthia, ed. H. Busard, *Janus* 54 (1967) 1–140 [Books I–VI]; *Mathematical Centre Tracts* (Amsterdam) 84 (1977) [Books VII–XII].

   The First Latin Translation of Euclid's "Elements" Commonly Ascribed to Adelard of Bath, ed. H. L. L. Busard (Toronto: Pontifical Institute of Mediaeval Studies, 1983).

   Johannes de Tinemue's Redaction of Euclid's Elements, the So-Called Adelard III Version, ed. H. L. L. Busard (Stuttgart: Steiner, 2001).

   The Latin Translation of the Arabic Version of Euclid's Elements Commonly Ascribed to Gerard of Cremona, ed. H. L. L. Busard (Leiden: Brill, 1984).

   The Mediaeval Latin Translation of Euclid's Elements: Made Directly from the Greek, ed. H. L. L. Busard (Stuttgart: Steiner, 1987).

   Robert of Chester's (?) Redaction of Euclid's Elements, the So-Called Adelard II Version, ed. H. Busard and M. Folkerts (Basel: Birkhäuser, 1992).

Eustachius of Arras. *Quaestiones septem de aeternitate mundi*, ed. R. C. Dales and O. Argerami, *Archives d'histoire doctrinale et littéraire du moyen âge* 53 (1986) 116–37; 54 (1987) 59–102.

Eustratios of Nicea. *Commentaria in II librum Posteriorum analyticorum Aristotelis*, tr. Andreas Gratiolus (Venice, 1542; repr. Stuttgart-Bad Cannstatt: Frommann-Holzboog, 2001).

   In Analyticorum posteriorum librum secundum commentarium, ed. M. Hayduck (*Commentaria in Aristotelem Graeca* XXI) (Berlin: Reimer, 1907).

   In Ethica Nicomachea commentaria, ed. G. Heylbut (*Commentaria in Aristotelem Graeca* XX) (Berlin: Reimer, 1892).

   In Ethicam Nicomacheam, tr. Robert Grosseteste, in H. P. F. Mercken (ed.) *The Greek Commentaries on the Nicomachean Ethics of Aristotle in the Latin Translation of Robert Grosseteste* (Leiden: Brill, 1973).

Everard of Ypres. *Dialogus Ratii et Everardi*, ed. N. M. Häring, *Mediaeval Studies* 15 (1953) 243–89.

Evrard de Béthune. *Graecismus*, ed. J. Wrobel (Breslau: G. Koebner, 1887).

al-Fārābī. *Alfarabi's philosophische Abhandlungen aus Londoner, Leidener und Berliner Handschriften*, ed. F. Dieterici (Leiden: Brill, 1890).

   Commentary and Short Treatise on Aristotle's De Interpretatione, tr. F. W. Zimmermann (Oxford: Oxford University Press, 1981).

   Commentary on Aristotle's Per Hermeneias (De interpretatione), ed. W. Kutsch and S. Marrow (Beirut: Imprimerie Catholique, 1960).

   De scientiis: secundum versionem Dominici Gundisalvi, ed. and [German] tr. J. H. J. Schneider (Freiburg: Herder, 2006).

   De scientiis = Über die Wissenschaften nach der lateinischen Übersetzung Gerhards von Cremona, ed. and [German] tr. F. Schupp (Hamburg: Meiner, 2005).

   Fuṣūl al-madanī: Aphorisms of The Statesman, ed. D. M. Dunlop (Cambridge: Cambridge University Press, 1961).

   L'harmonie entre les opinions de Platon et d'Aristote: Texte arabe et traduction, ed. F. M. Najjar and D. Mallet (Damascus: Institut français de Damas, 1999).

   Introduction to the Book of Rhetoric, tr. [Latin] Hermann the Germann, in M. Grignaschi and J. Langhade (eds.) *Deux ouvrages inédits sur la réthorique* [*sic*] (Beirut: Dār el-Mashriq, 1971).

   Kitāb al-ḥurūf, ed. M. Mahdi (Beirut: Dār al-Mashriq, 1969).

   Kitāb iḥṣaʾ al-ʿulūm [*Survey of the Sciences*], ed. ʿU. Amīn (Cairo: Dār al-Fikr al-ʿArabī, 1931–48).

   Liber exercitationis ad viam felicitatis, ed. D. Salman, *Recherches de théologie ancienne et médievale* 12 (1940) 33–48.

"*Long Commentary* on Aristotle's *Categoriae* in Hebrew and Arabic: A Critical Edition and English Translation of the Newly-Found Extant Fragments," ed. M. Zonta, in B. Abrahamov (ed.) *Studies in Arabic and Islamic Culture* (Ramat-Gan: Bar-Ilan University Press, 2006) II: 185–254.

On the Perfect State: Abū Naṣr al-Fārābī's Mabādi' ārā' ahl al-madīna al-fāḍila, ed. and tr. R. Walzer (Oxford: Clarendon Press, 1985).

Philosophical Lexicon = Qāmūs al-Fārābī al-falsafī, ed. and tr. I. Alon (Cambridge: E. J. W. Gibb Memorial Trust, 2002).

Philosophy of Plato and Aristotle, tr. M. Mahdi (Ithaca, NY: Cornell University Press, 1962).

The Political Writings, tr. C. Butterworth (Ithaca, NY: Cornell University Press, 2001).

Risāla fī al-ʿaql, ed. M. Bouyges (Beirut: Imprimerie Catholique, 1938).

Short Commentary on Aristotle's Prior Analytics, ed. N. Rescher (Pittsburgh: University of Pittsburgh Press, 1963).

"Le sommaire du livre des 'Lois' de Platon (Djawāmi' Kitāb al-Nawāmīs li-Aflāṭūn) par Abū Nasr al-Fārābī," ed. T.-A. Druart, *Bulletin d'études orientales* 50 (1998) 109–55.

Ferrandus of Spain. *De specie intelligibili*, ed. Z. Kuksewicz, *Medioevo* 3 (1977) 187–235.

Ferrarius the Catalan. *Quodlibet* (ms. in Paris, Bibliothèque de l'Arsenal 379).

Foxe, John. *The First Volume of the Ecclesiasticall History Contayning the Actes and Monumentes of Thynges Passed* (London: J. Daye, 1570).

Francis of Assisi. *Die Opuscula des hl. Franziskus von Assisi. Neue textkritische Edition*, ed. K. Esser (Grottaferrata: Editiones Collegii S. Bonaventurae, 1976).

Francis of Marchia. *Commentarius in IV libros Sententiarum Petri Lombardi. Distinctiones primi libri prima ad decimam*, ed. N. Mariani (Grottaferrata: Editiones Collegii S. Bonaventurae, 2006).

Commentarius in IV libros Sententiarum Petri Lombardi. Quaestiones praeambulae et Prologus, ed. N. Mariani (Grottaferrata: Editiones Collegii S. Bonaventurae, 2003).

Improbatio contra libellum Domini Johannis qui incipit Quia vir reprobus, ed. N. Mariani (Grottaferrata: Editiones Collegii S. Bonaventurae, 1993).

Quodlibet cum quaestionibus selectis ex commentario in librum Sententiarum, ed. N. Mariani (Grottaferrata: Editiones Collegii S. Bonaventurae, 1997).

Sententia et compilatio super libros Physicorum Aristotelis, ed. N. Mariani (Grottaferrata: Editiones Collegii S. Bonaventurae, 1998).

Francis of Meyronnes. *Expositio in VIII libros Physicorum* (Ferrara, 1490).

In libros sententiarum (Venice, 1520; repr. Frankfurt: Minerva, 1966).

Passus super Universalia, Praedicamenta et Perihermenias Aristotelis (Bologna, 1479).

Quadragesimale doctoris illuminati Francisci de Mayronis (Venice: Bernardinum de Nouaria, 1491).

Quodlibeta (Venice, 1520; repr. Frankfurt: Minerva, 1966).

Der Tractatus de transcendentibus des Franciscus de Mayronis, ed. H. Möhle (Dudley, MA: Peeters, 2004).

Francis of Meyronnes and Pierre Roger. *Disputatio* (1320–1), ed. J. Barbet (Paris: Vrin, 1961).

Francis of Prato. *De universalibus*, in F. Amerini (ed.) *I trattati De universalibus di Francesco da Prato e Stefano da Rieti (secolo XIV)* (Spoleto: Centro italiano di studi sull'alto medioevo, 2003) 57–132.

La logica di Francesco da Prato: con l'edizione critica della Loyca e del Tractatus de voce univoca, ed. F. Amerini (Florence: SISMEL, Edizioni del Galluzzo, 2005).

Tractatus de prima et secunda intentione, ed. B. Mojsisch, *Bochumer Philosophisches Jahrbuch für Antike und Mittelalter* 5 (2000) 147–74.

Tractatus de sex transcendentibus, ed. B. Mojsisch and J. Maasen, *Bochumer Philosophisches Jahrbuch für Antike und Mittelalter* 5 (2000) 175–217.

Tractatus de suppositionibus terminorum, ed. F. Amerini, *Medioevo* 25 (1999/2000) 486–547.

Francisco Suárez. *De anima: Commentaria una cum quaestionibus in libros Aristotelis De anima*, ed. S. Castellote (Madrid: Sociedad de Estudios y Publicaciones, 1978).

  Disputationes metaphysicae (Paris, 1866; repr. Hildesheim: Olms, 1965).

Frassen, Claude. *Philosophia Academica, quam ex selectissimis Aristotelis et Doctoris Subtilis Scoti rationibus* (Paris, 1668).

Fredegisus of Tours. "The Letter of Fredegisus of Tours on Nothingness and Shadow: A New Translation and Commentary," tr. N. Jun, *Comitatus* 34 (2003) 150–69.

Frey, Jean-Cécile. *Opuscula varia nusquam edita, philosophis, medicis, et curiosis omnibus utilissima*, ed. A. Morand (Paris, 1646; repr. Lecce: Conte Editore, 2003).

Fulbert of Chartres. *The Letters and Poems of Fulbert of Chartres*, ed. and tr. F. Behrends (Oxford: Oxford University Press, 1976).

Gabriel Biel. *Canonis misse expositio*, ed. H. A. Oberman and W. J. Courtenay (Wiesbaden: Steiner, 1963–76).

  Collectorium circa quattuor libros Sententiarum, ed. H. Rückert *et al.* (Tübingen: Mohr, 1973–92).

  Defensiorum obedientiae apostolicae et alia documenta, ed. H. A. Oberman *et al.* (Cambridge, MA: Harvard University Press, 1968).

  Quaestiones de justificatione, ed. C. Feckes (Münster: Aschendorff, 1929).

Galen. *Burgundio of Pisa's Translation of Galen's Peri kraseōn* (*De complexionibus*), ed. R. J. Durling (Berlin: De Gruyter, 1976).

  Burgundio of Pisa's Translation of Galen's Peri ton peponthoton topon *(De interioribus)*, ed. R. J. Durling (Weisbaden: Steiner, 1992).

  Compendium Timaei Platonis, ed. and tr. P. Kraus and R. Walzer (London: Warburg Institute, 1951).

  "De alimentorum facultatibus: tekstkritisch onderzoek en uitgave van de Latijnse vertaling van Willem Van Moerbeke," ed. M. Camps (Ph.D. dissertation: University of Leuven, 1987).

  De causis procatarcticis libellus a Nicolao Regino in sermonem Latinum translatus, ed. K. Bardong (Leipzig: Teubner, 1937).

  In Platonis Timaeum commentarii fragmenta, ed. H. O. Schröder, P. Kahle, *et al.* (Leipzig: Teubner, 1934).

  Kitāb Jālīnūs fī Firaq al-ṭibb li-al-mutaʿallimīn, ed. M. S. Sālim (Cairo: Matbaʿat Dār al-Kutub, 1977).

  Kitāb al-Usṭuquṣṣāt ʿalā raʾy Buqrāṭ, ed. M. S. Sālim (Cairo: al-Hayʾah al-Miṣrīyah al-ʿĀmmah lil-Kitāb, 1987).

  On the Parts of Medicine; On Cohesive Causes; On Regimen in Acute Diseases in Accordance with the Theories of Hippocrates, ed. M. C. Lyons *et al.* (Berlin: Akademie-Verlag, 1969).

  Über die Medizinischen Namen, ed. and tr. M. Meyerhof and J. Schacht, *Abhandlungen der Preussischen Akademie der Wissenschaften* 3 (1931).

Garland of Besançon. *Dialectica*, ed. L. M. de Rijk (Assen: Van Gorcum, 1959).

Garland the Computist. *De computo* (ms. in Paris, Bibliothèque Nationale lat. 15118).

Gassendi, Pierre. *Dissertations en forme de paradoxes contre les Aristotéliciens (Exercitationes paradoxicae adversus Aristoteleos)* Livres I et II, ed. B. Rochot (Paris: Vrin, 1959).

  Syntagmatis philosophici, in *Opera omnia* (Lyon, 1658; repr. Stuttgart-Bad Cannstatt: Frommann-Holzboog, 1964).

Gentilis da Cingulo. "Il commento di Gentile da Cingoli a Martino di Dacia," ed. G. C. Alessio, in D. Buzzetti *et al.* (eds.) *L'insegnamento della logica a Bologna nel XIV secolo* (Bologna: Presso l'Istituto per la storia dell'Università, 1992) 3–71.

  Quaestiones supra Prisciano Minori, ed. R. Martorelli Vico (Pisa: Scuola Normale Superiore, 1985).

George Gemistos Plethon. *Contra Scholarii pro Aristotele obiectiones*, ed. E. V. Maltese (Leipzig: Teubner, 1988).

De differentiis, ed. B. Lagarde, *Byzantion* 43 (1973) 312–43.

Nomōn syngraphēs ta sōzomena = Traité des lois, ed. C. Alexandre, tr. A. Pellissier (Paris, 1858; repr. Amsterdam: Hakkart, 1966).

Peri aretōn = Traité des vertus, ed. and tr. B. Tambrun-Krasker (Athens: Akademia Athenon, 1987).

Politik, Philosophie und Rhetorik im spätbyzantinischen Reich, tr. W. Blum (Stuttgart: Hiersemann, 1988).

George Pachymeres. *Epitomē tēs Aristotelikēs logikēs*, ed. P. Bechius (Paris, 1548).

Hypomnema eis ton Parmeniden Platonos: anonymou synecheia tou hypomnematos Proklou, ed. T. A. Gadra *et al.* (Paris: Vrin, 1989).

In universam fere Aristotelis philosophiam epistome, tr. P. Bechio (Basel, 1560).

Philosophia, Buch 10: Kommentar zur Metaphysik des Aristoteles, editio princeps, ed. E. Pappa (Paris: Vrin, 2002).

Philosophia, editio princeps: Vivlia hendekaton, Ta ethika, etoi, Ta Nikomacheia, ed. K. Ikonomakos (Athens: Akademia Athenon, 2005).

Quadrivium, ed. P. Tannery and E. Stéphanou (Vatican: Biblioteca Apostolica Vaticana, 1940).

George Scholarios – Gennadios II. *Florilegium Thomisticum I*, ed. J. A. Demetracopoulos, *Recherches de théologie et philosophie médiévales* 69 (2002) 117–71.

Florilegium Thomisticum II (De fato), ed. J. A. Demetracopoulos, *Recherches de théologie et philosophie médiévales* 74 (2007) 301–76.

Œuvres complètes, ed. L. Petit *et al.* (Paris: Maison de la Bonne Presse, 1928–36).

George Trapezountios. *Comparationes Philosophorum Aristotelis et Platonis* (Venice: Iacobus Pentius, 1523; repr. Frankfurt: Minerva, 1965).

Isagoge Dialectica (Cologne: Eucharius, 1539; repr. Frankfurt: Minerva, 1966).

Gerald of Odo. *De suppositionibus*, ed. S. Brown, *Franciscan Studies* 35 (1975) 5–44.

Expositio in Aristotelis Ethicam (Brescia, 1482).

Opera philosophica, ed. L. M. de Rijk (Leiden: Brill, 1997–).

Sententia et expositio cum quaestionibus in Aristotelis Ethicam (Venice, 1500).

La vision de Dieu aux multiples forms, ed. C. Trottmann (Paris: Vrin, 2001).

Gerard of Abbeville. *Contra adversarium perfectionis christianae*, ed. S. Clasen, *Archivum Franciscanum Historicum* 31 (1938) 276–329; 32 (1939) 89–200.

"Quatre questions inédites de Gérard d'Abbeville pour la défense de la supériorité du clergé séculier," ed. A. Teetaert, *Archivio italiano per la storia della pietà* 1 (1951) 83–178.

Gerard of Siena. *In primum librum Sententiarum doctissimae quaestiones* (Padua, 1598).

Tractatus de usuris et restitutionibus (Rome, 1556).

Gerhoh of Reichersberg. *Opera inedita*, ed. D. van den Eynde *et al.* (Rome: Pontificium Athenaeum Antonianum, 1955–6).

Gershom ben Solomon. *The Gate of Heaven: Sha'ar ha-Shamayim*, tr. F. S. Bodenheimer (Jerusalem: Kiryath Sepher, 1953).

Sefer Shaar ha-Shamayim (Warsaw, 1875; repr. Jerusalem, 1967).

Gertrude the Great. *The Herald of Divine Love*, tr. M. Winkworth (New York: Paulist Press, 1993).

Œuvres spirituelles, ed. and tr. J. Hourlier *et al.* (Paris: Cerf, 1967–86).

Spiritual Exercises, tr. G. J. Lewis and J. Lewis (Kalamazoo, MI: Cistercian Publications, 1989).

al-Ghazālī. *Algazels's Metaphysics: A Medieval Translation*, ed. J. T. Muckle (Toronto: St. Michael's College, 1933).

The Book of Knowledge, Being a Translation with Notes of the Kitab al-ʿIlm of al-Ghazzali's Ihyaʾ ʿUlum al-Din, tr. N. A. Faris (Lahore: Shaykh Muhammad Ashraf, 1962).

Book XX of al-Ghazali's Ihyaʾ ʿUlum al-Din, ed. L. Zolondek (Leiden: Brill, 1963).

Critère de l'action (Mizān al-ʿamal): traité d'éthique psychologique et mystique, tr. H. Hachem (Paris: Maisonneuve, 1945).

Faith in Divine Unity and Trust in Divine Providence (Book 35 of The Revival of Religious Sciences), ed. D. Burrell (Louisville, KY: Fons Vitae, 2001).

Fayṣal al-tafriqa bayna al-Islām wa-al-zandaqa, ed. S. Dunyā (Cairo: ʿĪsā al-Bābī al-Ḥalabī, 1961).

The Foundation of the Articles of Faith: Being a Translation with Notes of the Kitab Qawaʿid al-ʿAqaʾid of al-Ghazzali's Ihyaʾ ʿUlum al-Din, ed. N. A. Faris (Lahore: Shaykh Muḥammad Ashraf, 1963).

Freedom and Fulfillment: An Annotated Translation of al-Ghazali's al-Munqidh min al-Dalal and Other Relevant Works of al-Ghazali, ed. R. J. McCarthy (Boston: Twayne, 1980).

Al-Ghazali on Divine Predicates and their Properties: A Critical and Annotated Translation of these Chapters in al-Iqtiṣād fī al-iʿtiqād, tr. A. Abū Zayd (Lahore: Shaykh Muḥammad Ashraf, 1970).

Al-Ghazali on Patience and Thankfulness: Book XXXII of the Revival of the Religious Sciences, tr. H. T. Littlejohn (Cambridge: Islamic Texts Society, 2001).

Iḥyaʾ ʿulūm al-dīn (Beirut: Dār al-kutub al-ʿilmīyya, 2002).

The Incoherence of the Philosophers / Tahāfut al-falāsifa: A Parallel English–Arabic Text, ed. M. E. Marmura (Provo, UT: Brigham Young University Press, 1997).

Invocations and Supplications: Book IX of the Revival of the Religious Sciences, ed. K. Nakamura (Cambridge: Islamic Text Society, 1990).

Al-Iqtiṣād fī al-iʿtiqād, ed. I. A. Çubukçu and H. Atay (Ankara: Nur Matbaasi, 1962).

The Just Balance: al-Quṣtās al-mustaqīm, tr. D. P. Brewster (Lahore: Shaykh Muḥammad Ashraf, 1978).

Logica, ed. C. H. Lohr, *Traditio* 21 (1965) 223–90.

Al-Maqṣad al-asnā fī sharḥ maʿānī asmāʾ Allāh al-ḥusnā, ed. F. Shehadi, 2nd edn (Beirut: Dār al-Mashriq, 1982).

Maqāṣid al-falāsifa, ed. S. Dunyā (Cairo: Dār al-Maʿārif, 1961).

Miḥakk al-naẓar fī al-manṭiq, ed. M. al-Naʿsani (Beirut: Dār al-Nahḍa al-Ḥadītha, 1966).

Miʿyār al-ʿilm, ed. A. Shams al-Dīn (Beirut: Dār al-Kutub al-ʿIlmīya, 1990).

Mizān al-ʿamal, ed. S. Dunyā (Cairo: Dār al-Maʿārif, 1964).

Al-Munqidh min al-ḍalāl, ed. J. Ṣalība and K. ʿAyyād (Damascus: Maktab al-Nashr al-ʿArabī, 1934).

The Niche of Lights = Mishkāt al-anwār: A Parallel English–Arabic Text, ed. D. Buchman (Provo, UT: Brigham Young University Press, 1998).

On the Boundaries of Theological Tolerance in Islam: Abū Hāmid al-Ghazālī's Fayṣal al-tafriqa bayna al-Islām wa-al-zandaqa, ed. S. A. Jackson (Karachi: Oxford University Press, 2002).

Al-Quṣtās al-mustaqīm, ed. V. Shalhat (Beirut: Imprimerie Catholique, 1959).

The Remembrance of Death and the Afterlife: Book XL of the Revival of Religious Sciences, ed. T. J. Winter (Cambridge: Islamic Text Society, 1989).

Al-Risāla al-Qudsiyya, ed. A. L. Tibawi, *Islamic Quarterly* 9 (1965) 62–122.

Worship in Islam: Al-Ghazali's Book of the Ihyaʾ on the Worship, ed. E. E. Calverley (London: Luzac, 1957).

Gianfrancesco Pico della Mirandola. *Examen vanitatis doctrinae gentium, et veritatis Christianae doctrinae,* in Giovanni Pico della Mirandola, *Opera omnia* (Basel, 1557; repr. Hildesheim: Olms, 1969) II: 710–1264.

Gilbert of Poitiers. *The Commentaries on Boethius by Gilbert of Poitiers*, ed. N. M. Häring (Toronto: Pontifical Institute of Mediaeval Studies, 1966).

Gilbert of Tournai. *De modo addiscendi*, ed. E. Bonifacio (Turin: Società editrice internazionale, 1953).

   Eruditio regum et principum, ed. A. de Poorter (*Les Philosophes Belges* IX) (Leuven: Institut Supérieur de Philosophie de l'Université, 1914).

   Tractatus de pace, ed. E. Longpré (Quaracchi: Editiones Collegii S. Bonaventurae, 1925).

Giles of Lessines. *De unitate formae* ed. M. De Wulf (*Les Philosophes Belges* I) (Leuven: Institut Supérieur de Philosophie de l'Université, 1901).

Giles of Orleans. *Quaestiones super De generatione et corruptione*, ed. Z. Kuksewicz (Amsterdam: Grüner, 1993).

Giles of Rome. *Apologia (Opera omnia* III.1), ed. R Wielockx (Florence: Olschki, 1985).

   Commentaria in octo libros Physicorum Aristotelis (Venice 1502; repr. Frankfurt: Minerva, 1968).

   Commentary on the Song of Songs and Other Writings, tr. J. Rotelle (Villanova, PA: Augustinian Press, 1998).

   Contra gradus et pluralitatem formarum (Venice, 1500; repr. Frankfurt: Minerva, 1982).

   De regimine principum libri III (Rome, 1556; repr. Frankfurt: Minerva, 1968).

   De renunciatione pape, ed. J. Eastman (Lewiston, NY: E. Mellen Press, 1992).

   Errores philosophorum, ed. J. Koch, tr. J. Riedl (Milwaukee, WI: Marquette University Press, 1944).

   In librum Solomonis qui Cantica canticorum inscribitur commentaria, in *Opera exegetica: Opuscula I* (Rome: Antonio Blado, 1554–5; repr. Frankfurt: Minerva, 1968).

   In primum librum Sententiarum (Venice, 1521; repr. Frankfurt: Minerva, 1968).

   On Ecclesiastical Power: A Medieval Theory of World Government, ed. and tr. R. W. Dyson (New York: Columbia University Press, 2004).

   Quaestiones disputatae de esse et essentia, De mensura angelorum, et De cognitione angelorum (Venice, 1503; repr. Frankfurt: Minerva, 1968).

   Quodlibeta (Leuven, 1646; repr. Frankfurt: Minerva, 1966).

   Theoremata de corpore Christi (Bologna, 1481).

   Theoremata de corpore Christi in *Opera exegetica: Opuscula I* (Rome: Antonio Blado, 1554–5; repr. Frankfurt: Minerva, 1968).

   Theoremata de esse et essentia, ed. E. Hocedez (Leuven: Museum Lessianum, 1930).

   Theorems on Essence and Existence, tr. M. Murray (Milwaukee, WI: Marquette University Press, 1952).

Godefridus *et al*. *The Life of the Holy Hildegard*, tr. J. McGrath and M. Palmquist (Collegeville, MN: Liturgical Press, 1995).

   Vita Sanctae Hildegardis, ed. M. Klaes (Turnhout: Brepols, 1993).

Godfrey of Fontaines. *Le huitième Quodlibet, Le Neuvième Quodlibet, Le dixième Quodlibet (Les Philosophes Belges* IV), ed. J. Hoffmans (Leuven: Institut Supérieur de Philosophie de l'Université, 1924–31).

   Notulae (ms. in Paris, Bibliothèque Nationale lat. 16297).

   Les quatre premiers Quodlibets (*Les Philosophes Belges* II), ed. M. De Wulf and A. Pelzer (Leuven: Institut Supérieur de Philosophie de l'Université, 1904).

   Les Quodlibets cinq, six et sept (Les Philosophes Belges III), ed. M. De Wulf and J. Hoffmans (Leuven: Institut Supérieur de Philosophie de l'Université, 1914).

   Le Quodlibet XV et trois Questions ordinaires de Godefroid de Fontaines (Les Philosophes Belges XIV), ed. O. Lottin (Leuven: Institut Supérieur de Philosophie de l'Université, 1937).

   Les Quodlibets onze et douze, Les Quodlibets treize et quatorze (Les Philosophes Belges V), ed. J. Hoffmans (Leuven: Institut Supérieur de Philosophie de l'Université, 1932–5).

Gonsalvo of Spain. *Quaestiones disputatae et de quodlibet*, ed. L. Amóros (Quaracchi: Editiones Collegii S. Bonaventurae, 1935).

Gosvin of Marbais. *Tractatus de constructione*, ed. I. Rosier (Nijmegen: Artistarium, 1998).

Gottschalk of Orbais. "Lettre inédite de Godescalc d'Orbais," ed. C. Lambot, *Revue Bénédictine* 68 (1958) 41–51.

    Œuvres théologiques et grammaticales, ed. C. Lambot (Leuven: Spicilegium sacrum Lovaniense, 1945).

Goudin, Antoine. *Philosophia juxta inconcussa tutissimaque Divi Thomae dogmata* (Paris, 1668).

Gratiadeus Aesculanus. *Acutissime questiones de physico auditu Fratris Gratiadei Esculani ordinis predicatorum: item questiones disputate eiusdem* (Venice, 1517).

    Commentaria in artem veterem Aristotelis (Venice, 1491).

Gratian. *Corpus iuris canonici*, ed. A. Richter and E. Friedberg (Leipzig: Tauchnitz, 1879; repr. Graz: Akademische Druck, 1959).

    Decretum d. Gratiani, universi iuris cononici pontificias constitutiones (Lyon, 1558).

    The Treatise on Laws: (Decretum DD. 1–20), with the Ordinary Gloss, tr. A. Thompson and J. Gordley (Washington, DC: Catholic University of America Press, 1993).

Gregor Reisch. *Margarita philosophica* (Strasbourg, 1504).

Gregory VII. *Das Register Gregors VII*, ed. E. Caspar (Berlin: Weidmann, 1955).

Gregory the Great. *Moralia in Iob*, ed. M. Adriaen (Turnhout: Brepols, 1979).

    Morals on the Book of Job, tr. J. Bliss (Oxford: J. H. Parker, 1844–50).

Gregory of Nazianzus. *Tyrannii Rufini Orationum novem interpretatio*, ed. J. Wrobel and A. Engelbrecht (Vienna: Tempsky, 1910).

Gregory of Nyssa. *De imagine*, tr. John Scottus Eriugena, ed. M. Cappuyns, *Recherches de théologie ancienne et médiévale* 32 (1965) 205–62.

Gregory Palamas. *Défense des saints hésychastes*, ed. and tr. J. Meyendorff (Leuven: Spicilegium sacrum Lovaniense, 1973).

    Dialogue between an Orthodox and a Barlaamite, ed. and tr. R. Ferwerda (Binghamton, NY: Global Publications/CEMERS, 1999).

    Homilies, tr. C. Veniamin (South Canaan, PA: St. Tikhon's Seminary Press, 2002).

    The One Hundred and Fifty Chapters, ed. and tr. R. E. Sinkewicz (Toronto: Pontifical Institute of Mediaeval Studies, 1988).

    Syngrammata, ed. B. Bobrinsky *et al.* (Thessaloniki: Chrestu, 1962–70).

    The Triads, tr. N. Gendle (New York: Paulist Press, 1983).

Gregory of Rimini. *Lectura super primum et secundum Sententiarum*, ed. D. Trapp *et al.* (Berlin: De Gruyter, 1979–84).

    Tractatus de imprestantiis venetorum et de usura (Reggio Emilia, 1508).

Guarino Veronese. *Epistolario*, ed. R. Sabbadini (Venice: A spese della Società 1915–19; repr. Torino: Bottega d'Erasmo, 1967).

    Grammaticales regulae (Venice: Per Petrum de Quarengis Bergomensem, 1508).

Guerric of St. Quentin. *Quaestiones de quolibet*, ed. W. H. Principe (Toronto: Pontifical Institute of Mediaeval Studies, 2002).

Guy Terrena. *Quaestio de magisterio infallibili romani pontificis*, ed. B. M. Xiberta (Münster: Aschendorff, 1926).

    "Six Questions of Guideo Terreni, O.Carm. (†1342) Vat. lat. 901, ff. 140r–145v," ed. J. P. Etzwiler, *Carmelus* 35 (1988) 138–77.

    "Some Fragments from the Commentary on the *De anima* of Guido Terreni," ed. J. P. Etzwiler, *Carmelus* 21 (1974) 198–232.

    Summa de haeresibus ab intitio mundi usque ad a. 1300 et ultra (Cologne, 1631).

Guy Vernani. *Liber de virtutibus*, ed. L. Cova (Turnhout: Brepols, forthcoming).

Il più antico oppositore politico di Dante: *Guido Vernani da Rimini*; *testo critico del "De reprobatione monarchiae,"* ed. N. Matteini (Padua: CEDAM, 1958).

Tractatus de potestate summi pontificis, in F. Cheneval (ed.) *Die Rezeption der Monarchia Dantes bis zur Editio Princeps im Jahre 1559: Metamorphosen eines philosophischen Werkes* (Munich: Fink, 1995).

Ḥasdai Crescas. *Bittul ʿiqqare ha-Nosrim* [*Refutation of Christian Principles*], ed. C. del Valle Rodríguez (Madrid: Aben Ezra Ediciones, 2000).

Derashat ha-Pesah le-R. Hasdai Kreskas u-mehkarim be-mishnato ha-filosofit, ed. A. Ravitzky (Jerusalem: Israel Academy of Sciences and Humanities, 1988).

Or Adonai, ed. S. Fischer (Jerusalem: Sifrei Ramot, 1990).

The Refutation of Christian Principles, tr. D. J. Lasker (Albany: State University of New York Press, 1992).

Heiric of Auxerre. *Homiliae per circulum anni*, ed. R. Quadri (Turnhout: Brepols, 1992–).

Helperic of Auxerre. "Liber de computo," in J.-P. Migne (ed.) *Patrologiae cursus completus: series latina* (Paris, 1844–91) vol. CXXXVII.

Henry Bate of Malines. *Magistralis compositio astrolabii* (Venice, 1485).

Speculum divinorum et quorundam naturalium, ed. C. Steel and E. van de Vyver (Leuven: Publications universitaires, 1960–7; Leuven: Leuven University Press, 1990–).

Henry of Bratton. *Bracton's Note Book*, ed. F. W. Maitland (London; C. J. Clay, 1887; repr. Littleton, CO: F. B. Rothman, 1983; Buffalo: W. S. Hein, 1999).

On the Laws and Customs of England, ed. G. E. Woodbine, tr. S. E. Thorne (Cambridge, MA: Harvard University Press, 1968–77).

Henry of Friemar. *De decem preceptis*, ed. B. G. Guyot (Pisa: Scuola Normale Superiore, 2005).

De quatuor instinctibus, in R. G. Warnock and A. Zumkeller (ed. and tr.) *Der Traktat Heinrichs von Friemar über die Unterscheidung der Geister* (Würzburg: Augustinus-Verlag, 1977).

Tractatus ascetico-mystici, ed. A. Zumkeller (Würzburg: Augustinus-Verlag, 1975).

Henry of Ghent. *Henry of Ghent's Summa: The Questions on God's Existence and Essence (Articles 21–24)*, tr. J. Decorte and R. J. Teske (Paris: Peeters, 2005).

Henry of Ghent's Summa: The Questions on God's Unity and Simplicity (Articles 25–30), tr. R. J. Teske (Paris: Peeters, 2006).

Opera omnia, ed. R. Macken *et al.* (Leiden: Brill, 1979–).

Les Quaestiones in Librum de causis attribuées à Henri de Gand, ed. J. P. Zwaenepoel (Leuven: Publications universitaires, 1974).

Quodlibeta (Paris, 1518; repr. Leuven: Bibliothèque S.J., 1961).

Quodlibetal Questions on Free Will, tr. R. J. Teske (Milwaukee, WI: Marquette University Press, 1993).

Summa quaestionum ordinariarum (Paris, 1520; repr. St. Bonaventure, NY: Franciscan Institute, 1953).

Henry of Harclay. *Ordinary Questions*, ed. M. G. Henninger (Oxford: Oxford University Press, 2008).

Henry of Langenstein. *Der Sentenzenkommentar*, ed. and tr. R. Damerau (Marburg: Damerau, 1980).

Henry Ruyn. *Disputata Metaphysicae*, ed. A. Tabarroni, *Cahiers de l'Institut du Moyen Age Grec et Latin* 61 (1991) 185–428.

Henry Suso. *Deutsche mystische Schriften*, ed. G. Hofmann (Dusseldorf: Patmos-Verlag, 1966).

Horologium sapientiae, ed. P. Künzle (Freiburg: Universitätsverlag, 1977).

The Life of the Servant, ed. J. M. Clark (London: Clarke, 1952).

Little Book of Eternal Wisdom and Little Book of Truth, ed. J. M. Clark (London: Faber and Faber, 1953).

Henry Totting of Oyta. *Quaestiones in Isagogen Porphyrii*, ed. J. Schneider (Munich: Bayerische Akademie der Wissenschaften, 1979).

Hermann of Carinthia. *De essentiis: A Critical Edition with Translation and Commentary*, ed. C. Burnett (Leiden: Brill, 1982).

Hermann of Reichenau. *Musica*, ed. and tr. L. W. Ellinwood (Rochester: Eastman School of Music, 1936).

Hermes Trismegistus. *Corpus Hermeticum*, ed. A. D. Nock; tr. [French] A. J. Festugière (Paris: Les Belles Lettres, 1945–54).

Hervaeus Natalis. *De iurisdictione*, ed. L. Hödl (Munich: Hueber, 1959).

  De paupertate Christi et apostolorum, ed. J. Sikes, *Archives d'histoire doctrinale et littéraire du moyen âge* 12–13 (1937–8) 209–97.

  De potestate papae (Paris, 1647; repr. Farnborough: Gregg, 1966).

  Defensa doctrinae D. Thomae, in E. Krebs (ed.) *Theologie und Wissenschaft nach der Lehre der Hochscholastik an der Hand der bisher ungedruckten Defensa Doctrinae D. Thomae des Hervaeus Natalis mit Beifügung gedruckter und ungedruckter Paralleltexte* (Münster: Aschendorff, 1912).

  In quattor libros Sententiarum commentaria (Paris, 1647; repr. Farnborough: Gregg, 1966).

  Opinio de difficultatibus contra doctrinam fratris Thome [Defensio doctrinae fr. Thomae], ed. P. Piccari, *Memorie Domenicane* n.s. 26 (1995) 5–193.

  The Poverty of Christ and the Apostles, tr. J. D. Jones (Toronto: Pontifical Institute of Mediaeval Studies, 1999).

  Quodlibeta cum octo ipsius profundissimis tractatibus (Venice, 1513; repr. Ridgewood, NJ: Gregg, 1966).

  A Treatise of Master Hervaeus Natalis (d. 1323), The Doctor Perspicacissimus, On Second Intentions, ed. J. P. Doyle (Milwaukee, WI: Marquette University Press, 2008).

Heymeric de Campo. *Compendium divinorum*, ed. J. Korolec, *Studia Mediewistyczne* 8 (1967) 19–75; 9 (1968) 3–90.

  De signis notionalibus trinitatis et unitatis supernae, ed. M. Hoenen, *Freiburger Zeitshcrift für Philosophie und Theologie* 45 (1998) 207–63.

  Dyalogus Super Reuelacionibus Beate Birgitte: A Critical Edition with an Introduction, ed. A. Fredriksson Adman (Uppsala: Uppsala University Press, 2003).

  Opera selecta, ed. R. Imbach and P. Ladner (Freiburg: Universitätsverlag, 2001–).

  Problemata inter Albertum Magnum et Sanctum Thomam ad intelligentiam utriusque opinionis multum conferentia (Cologne, 1496).

  Reparationes totius naturalis philosophiae (Cologne, 1494).

Hildegard of Bingen. *Analecta Sanctae Hildegardis opera spicilegio solesmensi parata*, ed. J.-B. Pitra (Monte Cassino: Typis Sacri Montis Casinensis, 1882).

  Book of Divine Works with Letters and Songs, tr. R. Cunningham and M. Fox (Santa Fe, NM: Bear and Company, 1987).

  The Book of the Rewards of Life, tr. B. Hozeski (New York: Garland, 1994).

  Cause et cure, ed. L. Moulinier and R. Berndt. (Berlin: Akademie Verlag, 2003).

  Epistolarium, ed. L. van Acker (Turnhout: Brepols, 1991–3).

  The Letters, tr. J. Baird and R. Ehrman (New York: Oxford University Press, 1994–).

  Liber divinorum operum, ed. A. Derolez and P. Dronke (Turnhout: Brepols, 1996).

  Liber vitae meritorum, ed. A. Carlevaris (Turnhout: Brepols, 1995).

  On Natural Philosophy and Medicine: Selections from Cause et Cure, tr. M. Berger (Cambridge: Brewer, 1999).

  Opera omnia, in J.-P. Migne (ed.) *Patrologiae cursus completus: series latina* (Paris, 1844–91) vol. CXCVII.

  Physica (Argentorati, 1533).

Physica: The Complete English Translation of her Classic Work on Health and Healing, tr. P. Throop (Rochester, VT: Healing Arts Press, 1998).

Scivias, ed. A. Führkötter and A. Carlevaris (Turnhout: Brepols, 1978).

Scivias, tr. C. Hart and J. Bishop (New York: Paulist Press, 1990).

Hillel ben Samuel of Verona. *Sefer tagmule ha-nefesh le-ha-hakam ha-filosof we-ha-rofeʾ r. Hillel ben . . . r. Shemuʾel ben . . . r. Eliʿezer mi-Verona*, ed. S. Z. H. Halberstam (Lyck: Meqitsey Nirdamim, 1874).

Sefer tagmulei ha-nefesh, ed. G. Sermoneta (Jerusalem: Israel Academy of Sciences and Humanities, 1981).

Hincmar of Rheims. *De cavendis vitiis et virtutibus exercendis*, ed. D. Nachtmann (Munich: Monumenta Germaniae Historica, 1998).

Epistolae, ed. E. Perels (Munich: Monumenta Germaniae Historica, 1975–).

Honorius Augustodunensis. *Clavis physicae*, ed. P. Lucentini (Rome: Edizioni di Storia e Letteratura, 1974).

L'elucidarium et les lucidaires, ed. Y. Lefèvre (Paris: De Boccard, 1954).

Imago mundi, ed. V. I. J. Flint, *Archives d'histoire doctrinale et littéraire du moyen âge* 49 (1982) 7–153.

Hostiensis. *In I–VI Decretalium libros commentaria* (Venice, 1581; repr. Turin: Bottega d'Erasmo, 1965).

Summa aurea (Lyon, 1537; repr. Aalen: Scientia Verlag, 1962).

Hugh Etherian. *Contra Patarenos*, ed. and tr. J. Hamilton *et al.* (Leiden: Brill, 2004).

Liber de differentia naturae et personae, ed. N. M. Häring, *Mediaeval Studies* 24 (1962) 1–34.

Hugh of Honau. *Liber de diversitate naturae et personae proprietatumque personalium non tam Latinorum quam ex Graecorum auctoritatibus extractus*, ed. N. M. Häring, *Archives d'histoire doctrinale et littéraire du moyen âge* 29 (1962) 103–216.

Liber de homoysion et homoeision, ed. N. M. Häring, *Archives d'histoire doctrinale et littéraire du moyen âge* 34 (1967) 129–253; 35 (1968) 211–95.

Liber de ignorantia, ed. N. M. Häring, *Mediaeval Studies* 25 (1963) 209–30.

Hugh of St. Cher. *De prophetia*, in J.-P. Torrell (ed.) *Théorie de la prophétie et philosophie de la connaissance aux environs de 1230: la contribution d'Hugues de Saint-Cher (Ms. Douai 434, Question 481)* (Leuven: Spicilegium sacrum Lovaniense, 1977).

Opera omnia in universum Vetus et Novum Testamentum (Lyon: J. A. Huguetan et G. Barbier, 1669).

Sacrorum Bibliorum vulgatae editionis concordantiae, ed. F. Lucas and H. Phalèse (Insulis: L. Lefort, 1837).

Tractatus super Missam, seu, Speculum Ecclesiae, ed. G. M. Sölch (Münster: Aschendorff, 1940).

Hugh of St. Victor. *De archa Noe; Libellus de formatione arche* (Turnhout: Brepols, 2001).

De contemplatione et eius speciebus, ed. R. Baron (Tournai: Desclée, 1958).

De sacramentis christianae fidei, in J.-P. Migne (ed.) *Patrologiae cursus completus: series latina* (Paris, 1844–91) vol. CLXXVI.

De tribus diebus, ed. D. Poirel (Turnhout: Brepols, 2001).

Didascalicon: A Medieval Guide to the Arts, tr. J. Taylor (New York: Columbia University Press, 1961).

Didascalicon de studio legendi, ed. C. H. Buttimer (Washington, DC: Catholic University of America Press, 1939).

On the Sacraments of the Christian Faith, tr. R. J. Deferrari (Cambridge, MA: Mediaeval Academy of America, 1951).

Opera propaedeutica, ed. R. Baron (Notre Dame, IN: University of Notre Dame Press, 1966).

Practical Geometry, tr. F. A. Homann (Milwaukee, WI: Marquette University Press, 1991).

Selected Spiritual Writings (New York: Harper and Row, 1962).

Hugolin of Orvieto. *Commentarius in quattuor libros Sententiarum*, ed. W. Eckermann (Würzburg: Augustinus-Verlag, 1980–8).

Huguccio. *Summa decretorum, 1: Distinctiones I–XX*, ed. O. Přerovský (Vatican: Biblioteca Apostolica Vaticana, 2006–).

Humbert of Romans. *Opera de vita regulari*, ed. J. J. Berthier (Rome: A. Befani, 1888; repr. Turin: Marietti, 1956).

Hume, David. *Dialogues Concerning Natural Religion*, ed. R. Popkin (Indianapolis, IN: Hackett, 1980).

Enquiry Concerning the Human Understanding and Concerning the Principles of Morals, ed. L. A. Selby-Bigge, 2nd edn (Oxford: Clarendon Press, 1902).

Ḥunayn ibn Isḥāq al-ʿIbādī. *Hunain ibn Isḥāq über die syrischen und arabischen Galen-Übersetzungen*, ed. and tr. G. Bergsträsser (Leipzig: Brockhaus, 1925).

Isagoge ad artem Galeni, ed. G. Maurach, *Sudhoffs Archiv* 62 (1978) 148–74.

Al-Masāʾil fi al-ṭibb lil-mutaʿallimīn, ed. M. Abū Rayyān *et al.* (Cairo: Dār al-Jāmiʿāt al-Misrīyah, 1978).

Questions on Medicine for Scholars, ed. P. Ghalioungui (Cairo: al-Ahram Center for Scientific Translations, 1980).

Ibn al-ʿArabī, Muḥyi al-Dīn. *The Bezels of Wisdom*, tr. R. W. J. Austin (New York: Paulist Press, 1980).

Al-Fuṣūṣ al-ḥikam, ed. A. E. Affifi (Cairo: Dār Iḥyāʾ al-Kutub al-ʿArabīyah, 1946).

Al-Futūḥāt al-makkiyya, ed. O. Yahia (Cairo: al-Hayʾah al-Miṣrīyah al-ʿĀmmah lil-Kitāb, 1972–91).

The Meccan Revelations, tr. M. Chodkiewicz *et al.* (New York: Pir Press, 2002–4).

Ibn Bājja. "The Governance of the Solitary," tr. L. Berman, in R. Lerner and M. Mahdi (eds.) *Medieval Political Philosophy: A Source Book* (Toronto: Free Press of Glencoe, 1963) 122–33.

ʿIlm al-nafs, tr. M. S. H. al-Maʿṣūmī (Karachi: Pakistan Historical Society, 1961; repr. Frankfurt: Publications of the Institute for the History of Arabic and Islamic Science, 1999).

Kitāb an-nafs, ed. M. S. H. al-Maʿṣūmī (Damascus: Majmaʿ al-ʿLughah al-ʿArabīyah bi-Dimashq, 1960; repr. Frankfurt: Publications of the Institute for the History of Arabic and Islamic Science, 1999).

Libro de la generación y la corrupción, ed. and tr. J. Puig Montada (Madrid: CSIC, 1995).

Rasāʾil Ibn Bājjah al-ilāhīyah, ed. M. Fakhry (Beirut: Dār al-Nahār, 1968).

Ibn Fūrak, Abū Bakr Muḥammad. *Kitāb al-ḥudūd fī al-uṣūl*, ed. M. al-Sulaymānī (Beirut: Dār al-Gharb al-Islāmī, 1999).

Kitāb mushkil al-ḥadīth, ed. D. Gimaret (Damascus: al-Maʿhad al-Faransī lil-Dirāsāt al-ʿArabīyah bi-Dimashq, 2003).

Mujarrad maqālāt al-Ashʿarī, ed. D. Gimaret (Beirut: Dār al-Mashriq, 1987).

Ibn Ḥanbal. *Kitāb al-sunna*, ed. M. al-Qahtani (Dammam: Dār Ibn al-Qayyīm, 1986).

Al-Musnad (Miṣr: Dār al-Maʿārif, 1949–56).

Ibn al-Haytham (Alhacen). *Completion of the Conics*, ed. and tr. J. P. Hogendijk (New York: Springer, 1985).

De aspectibus I–III, ed. and tr. A. M. Smith (Philadelphia, PA: American Philosophical Society, 2001).

De aspectibus IV–V, ed. and tr. A. M. Smith (Philadelphia, PA: American Philosophical Society, 2006).

De aspectibus VI, ed. and tr. A. M. Smith (Philadelphia, PA: American Philosophical Society, 2008).

De configuratione mundi, ed. J. L. Mancha, in M. Comes *et al.* (eds.) *"Ochava Espera" y "Astrofísica": Textos y estudios sobre las fuentes arabes de la astronomia de Alfonso X* (Barcelona: Universidad de Barcelona, 1990) 133–207.

On the Configuration of the World, ed. Y. T. Langermann (New York: Garland, 1990).

The Optics of Ibn al-Haytham, Books I–III: On Direct Vision, tr. A. I. Sabra (London: Warburg Institute, 1989).

The Optics of Ibn al-Haytham, Books I-II-III: On Direct Vision. The Arabic Text, ed. A. I. Sabra (Kuwait: National Council for Culture, Arts and Letters, 1983).

The Optics of Ibn al-Haytham, Edition of the Arabic Text of Books IV–V: On Reflection and Images Seen by Reflection, ed. A. I. Sabra (Kuwait: National Council for Culture, Arts and Letters, 2002).

Ibn Ḥazm. *Le collier du pigeon, ou, De l'amour et des amants = Ṭawq al-hamāma fī al-ulfa wa-al-ullāf*, ed. L. Bercher (Algiers: Carbonel, 1949).

Épitre morale: Kitāb al-ahlāq wa-l-siyar, ed. N. Tomiche (Beirut: Commission Internationale pour la Traduction des Chefs-d'Œuvre, 1961).

In Pursuit of Virtue: The Moral Theology and Psychology of Ibn Hazm al-Andalusi with a Translation of his Book al-Akhlāq wa'l-siyar, ed. M. Abū Laylah (London: Ta-Ha, 1990).

Kitāb al-fiṣal fī al-milal wa-al-aḥwāʾ wa-al-niḥal, in M. Asín Palacios (ed. and tr.) *Abenházam de Córdoba y su historia crítica de las ideas religiosas* (Madrid: Real Academica de la Historia, 1927–32; repr. Madrid: Turner, 1984).

Marātib al-ʿulūm = The Categories of the Sciences, in A. G. Chejne (ed. and tr.) *Ibn Hazm* (Chicago: Kazi Publications, 1982).

The Ring of the Dove: A Treatise on the Art and Practice of Arab Love, tr. A. Arberry (London: Luzac, 1953; repr. 1997).

Ibn Jamāʿa. Badr al-Dīn Muḥammad. *Taḥrīr al-aḥkām fī tadbīr ahl al-Islām*, ed. and tr. H. Kofler, *Islamica* 6 (1934) 349–414; 7 (1935) 1–64; Schlussheft (1938) 18–129.

Ibn Kammūna. *The Arabic Treatise on the Immortality of the Soul by Saʿd ibn Mansur ibn Kammuna*, ed. L. Nemoy (New Haven, CT: Yale University Library, 1944).

Examination of the Inquiries into the Three Faiths: A Thirteenth-Century Essay in Comparative Religion, ed. M. Perlmann (Berkeley: University of California Press, 1967).

Examination of the Inquiries into the Three Faiths: A Thirteenth-Century Essay in the Comparative Study of Religion, tr. M. Perlmann (Berkeley: University of California Press, 1971).

"Ibn Kammuna's Treatise on the Immortality of the Soul," tr. L. Nemoy in S. Löwinger *et al.* (eds.) *Ignace Goldziher Memorial Volume* (Jerusalem: Rubin Mass, 1958) II: 83–99.

Al-Tanqīḥāt fī sharḥ al-talwīḥat: Refinement and Commentary on Suhrawardī's Intimations, a Thirteenth-Century Text on Natural Philosophy and Psychology, ed. H. Ziai and A. Alwishah (Costa Mesa, CA: Mazda, 2003).

Ibn Khaldūn. *Muqaddima*, ed. and trans. F. Rosenthal (Princeton, NJ: Princeton University Press, 1967).

Shifāʾ al-sāʾil li-tahdīb al-masāʾil, ed. M. al-Ṭanjī (Istanbul: Osman Yalcin Matbaasi, 1958).

Taʾrīkh al-ʿAllāmat Ibn Khaldūn: Kitāb al-ʿibar wa-dīwān al-mubtadaʾ wa-al-khabar fī ayyām al-ʿArab wa-al-ʿAjam wa-al-Barbar wa-man ʿāṣarahum min dhawī al-Sulṭān al-Akbar (Beirut: Maktabat al-Madrasah wa-Dār al-Kitab al-Lubnani, 1961).

La voie et la loi ou le maître et le juriste, tr. R. Pérez (Paris: Sindbad, 1991).

Ibn Masarra. *Min al-turāth al-falsafī*, ed. M. Jaʿfar (Cairo: al-Majlis al-Aʿla lil-Thaqāfa, 1982).

Ibn al-Muqaffaʿ. *Al-Adab al-ṣaghīr wa-al-adab al-kabīr*, ed. I. Fawwāl (Beirut: Dār al-Kitāb al-ʿArabī, 1994).

Al-Manṭiq li-Ibn al-Muqaffaʿ, Ḥudūd al-manṭiq li-Ibn Bahrīz, ed. M. T. Dānishpāzhūh (Tehran: Anjuman-i Shāhanshāhī-i Falsafah-i Īrān, 1978) 1–93.

Ibn al-Nadīm. *Kitāb al-Fihrist*, ed. G. Flügel (Leipzig: Vogel, 1871–2).

Ibn al-Rāwandī. *Faḍīḥat al-muʿtazila*, ed. H. S. Nyberg, in Ibn al-Khayyāṭ, *Kitāb al-intiṣār wa-al-radd ʿala Ibn ar-Rawandī al-Mulhid* (Cairo: Maṭbaʿat al-Kutub al-Misrīyya, 1925).

  Le livre du triomphe et de la réfutation d'Ibn al Rawandi l'hérétique, tr. A. N. Nadir (Beirut: Catholic Press, 1957).

Ibn Sabʿīn. *Budd al-ʿārif*, ed. J. Kattūra (Beirut: Dār al-Andalus, 1978).

Ibn Taymiyya. *Darʾ taʿāruḍ al-ʿaql wa-al-naql*, ed. ʿAbd al-Laṭīf ʿAbd al-Raḥmān (Beirut: Dār al-Kutub al-ʿIlmiyyah, 1997).

  Ibn Taymiyya against the Greek Logicians, ed. and tr. W. B. Hallaq (Oxford: Clarendon Press, 1993).

  Ibn Taymiyyah Expounds on Islam: Selected Writings of Shaykh al-Islam Taqi ad-Din Ibn Taymiyyah on Islamic Faith, Life, and Society, tr. M. A. Ansari (Riyadh: General Administration of Culture and Publication, 2000).

  Ibn Taimiyya on Public and Private Law in Islam: Or Public Policy in Islamic Jurisprudence, tr. O. A. Farrukh (Beirut: Khayats, 1966).

  Jawāb al-ṣaḥīḥ li-man baddala dīn al-masīḥ, ed. A. ibn Nāṣir *et al.* (Riyadh: al-Mamlakah al-ʿArabīya al-Saʿūdiya, 1993–9).

  Kitāb al-imān, ed. M. al-Albānī (Egypt: Maktabat Anis Ibn Mālik, 1980).

  Kitāb al-imān: Book of Faith, tr. S. H. al-Ani and S. A. Tel (Bloomington, IN: Iman, 1999).

  Kitāb al-Siyāsa al-sharʿiyya, ed. M. al-Mubārak (Beirut: Dār al-Kutub al-Arabīya, 1966).

  A Muslim Theologian's Response to Christianity, tr. T. F. Michel (Delmar, NY: Caravan Books, 1984).

Ibn al-Ṭayyib. *Arabic Logic: Ibn al-Ṭayyib's Commentary on Porphyry's Eisagoge*, tr. K. Gyekye (Albany: State University of New York Press, 1979).

  Commentaire sur la Genèse, ed. and tr. J. C. J. Sanders (Leuven: Secrétariat du Corpus scriptorum Christianorum orientalium, 1967).

  Der Kategorienkommentar von Abū l-Farag ʿAbdallāh ibn aṭ-Ṭayyib: Text und Untersuchungen, ed. C. Ferrari (Leiden: Brill, 2006).

  Tafsīr kitāb Isāghūji li-Furfūriyūs, ed. K. Gyekye (Beirut: Dār al-Mashriq, 1975).

Ibn Ṭufayl. *Ḥayy ibn Yaqẓān*, ed. L. Gauthier, 2nd edn (Beirut: Imprimerie Catholique, 1936).

  Hayy ibn Yaqzan, a Philosophical Tale, tr. L. Goodman (New York: Twain Publishers, 1972).

al-Ījī, ʿAḍud al-Dīn. *Kitāb al-mawāqif*, ed. A. R. ʿUmayrah (Beirut: Dār al-Jīl, 1997).

Ikhwān al-Ṣafāʾ. *Arabische Philosophie und Wissenschaft in der Enzyklopädie: Kitāb Ihwān as-ṣafāʾ (III): Die Lehre von Seele und Intellekt*, ed. S. Diwald (Wiesbaden: Harrassowitz, 1975).

  The Case of Animals versus Man before the King of the Jinn: A Tenth-Century Ecological Fable of the Pure Brethren of Basra, tr. L.E. Goodman (Boston: Twayne, 1978).

  The Epistles of the Sincere Brethren (Rasāʾil Ikhwān al-Ṣafāʾ): An Annotated Translation of Epistles 43 to 47, tr. E. van Reijn (Montreux: Minerva Press, 1995).

  Epistola fratrum sincerorum in cosmographia, ed. P. Gauthier-Dalché, *Revue d'histoire des texts* 18 (1988) 137–67.

  Liber de quatuor confectionibus, ed. A. Sannino, *Studi Medievali* 41 (2000) 151–89.

  Rasāʾil Ikhwān al-Ṣafāʾ wa Khullān al-Wafāʾ, ed. M. Ghālib (Beirut: Dār al-Sādir, 1957).

Immanuel ben Solomon. *Il commento di Emanuele Romano al Capitolo I della Genesi*, ed. and tr. F. Michelini Tocci (Rome: Centro di studi semitici, Istituto di studi del vicino Oriente, 1963).

  Machberot Immanuel ha-Romi, ed. D. Jarden (Jerusalem: Mossad Bialik, 1957).

  Tophet and Eden (Hell and Paradise), tr. H. Gollancz (London: University of London Press, 1921).

Innocent IV. *Commentaria super libros quinque decretalium* [*Apparatus*] (Frankfurt, 1570; repr. Frankfurt: Minerva, 1968).

Irnerius (?). *Questiones de iuris subtilitatibus*, ed. G. Zanetti (Florence: La Nuova Italia, 1958).

    Summa codicis, ed. H. Fitting (Berlin: Guttentag, 1894; repr. Frankfurt: Minerva, 1971).

Isaac Abarbanel. *Principles of Faith = Rosh amanah*, tr. M. M. Kellner (Rutherford, NJ: Fairleigh Dickenson University Press, 1982).

    Sefer rosh amanah (Tel Aviv: Sifriyati, 1958).

Isaac Albalag. *Sefer Tikkun ha-De*ʿ*ot*, ed. G. Vajda (Jerusalem: ha-Akademyah ha-leumit ha-Yisreelit le-madaʿim, 1973).

Isaac ben Joseph Pulgar. *Ezer ha-dat*, ed. J. S. Levinger (Tel Aviv: University of Tel Aviv, 1984).

Isaac Israeli. *Isaac Israeli, a Neoplatonic Philosopher of the Early Tenth Century: His Works Translated with Comments and an Outline of his Philosophy*, tr. A. Altmann and S. M. Stern (London: Oxford University Press, 1958; repr. Westport, CT: Greenwood, 1979).

    Kitāb al-ḥudud wa-al-rusūm, ed. H. Hirschfeld, *Jewish Quarterly Review* 15 (1902) 689–93.

    Kitāb al-jawāhir, ed. S. M. Stern, *Journal of Jewish Studies* 7 (1956) 13–29.

    Liber de definicionibus, ed. J. T. Muckle, *Archives d'histoire doctrinale et littéraire du moyen âge* 11 (1937–8) 299–340.

    Omnia opera Ysaac in hoc volumine contenta cum quibusdam aliis opusculis (Lyon, 1515).

    Sefer ha-Gvulim, ed. H. Hirschfeld, in *Festschrift zum 80. Geburtstag Moritz Steinschneiders* (Leipzig: Harrassowitz, 1896) 131–42.

    Sefer ha-Yesodot, ed. S. Fried (Drohobycz: Bi-defus A. H. Zupnik, 1900).

    Shaʿar ha-Yesodot, ed. A. Altmann, *Journal of Jewish Studies* 7 (1956) 31–57.

Isaac of Stella. *Epistola de anima*, in B. McGinn (tr.) *Three Treatises on Man: A Cistercian Anthropology* (Kalamazoo, MI: Cistercian Publications, 1977).

    The Selected Works of Isaac of Stella: A Cistercian Voice from the Twelfth Century, tr. D. Deme (Aldershot: Ashgate, 2007).

    Sermones, ed. A. Hoste, G. Raciti, and G. Salet (Paris: Cerf, 1967–87).

    Sermons for the Christian Year, tr. H. McCaffrey (Kalamazoo, MI: Cistercian Publications, 1979).

Isidore of Seville. *Etymologiae*, ed. W. M. Lindsay (Oxford: Clarendon Press, 1911).

    The Etymologies of Isidore of Seville, tr. S. A. Barney (Cambridge: Cambridge University Press, 2006).

    The Letters of St. Isidore of Seville, tr. G. B. Ford, 2nd edn (Amsterdam: Hakkert, 1970).

    Sententiae, ed. P. Cazier (Turnhout: Brepols, 1998).

    Traité de la nature, ed. and tr. J. Fontaine (Paris: Institut d'Études Augustiniennes, 1960; repr. 2002).

Ivo of Chartres. *Correspondance* (1090–8), ed. J. Leclercq (Paris: Les Belles Lettres, 1949).

    Opera omnia, in J.-P. Migne (ed.) *Patrologiae cursus completus: series latina* (Paris, 1844–91) vols. CLXI–CLXII.

    Ways of Mercy: The Prologue of Ivo of Chartres, ed. B. C. Brasington (Münster: LIT, 2004).

Jābir ibn Ḥayyān. *Names, Natures and Things: The Alchemists Jabir ibn Hayyan and his Kitāb al-Ahjar (Book of Stones)*, ed. S. N. Haq (Dordrecht: Kluwer, 1994).

    (?). *The Works of Geber, the Most Famous Arabian Prince and Philosopher*, tr. R. Russel (London, 1678; repr. London: Dent, 1928).

Jacob Anatoli. *Malmad ha-talmidim* (Lyck: Mekitze Nirdamim, 1866; repr. Jerusalem: Miketze Nirdamim, 1968).

James of Ascoli. "Zwei Quästionen des Iacobus de Aesculo über das 'Esse Objectivum'," ed. T. Yokoyama, in L. Scheffczyk *et al.* (eds.) *Wahrheit und Verkündigung: Michael Schmaus zum 70. Geburtstag* (Munich: Paderborn, 1967) I: 31–74.

James of Douai. *Een commentaar op de Anima*, ed. J. de Raedemaeker (Leuven: Licentiaatsverhandeling Wijsbegeerte en Letteren, 1962).

De scientia animae et de cognitione suiipsius, ed. B. C. Bazán, *Philosophia* 35 (1969) 111–53.

James of Piacenza. *Lectura cum quaestionibus super tertium De anima*, ed. Z. Kuksewicz (Wroclaw: Ossolineum, 1967).

James of Thérines. *Quodlibets I and II*, ed. P. Glorieux (Paris: Vrin, 1958).

James of Viterbo. *Disputationes de quolibet*, ed. E. Ypma (Würzburg: Augustinus, 1968–75).

    On Christian Government: De regimine Christiano, ed. and tr. R. W. Dyson (Woodbridge: Boydell Press, 1995).

    Prima quaestio disputata de verbo, ed. C. Scanzillo, *Asprenas* n.s. 19 (1972) 25–61.

    Quaestiones de divinis praedicamentis, ed. E. Ypma (Rome: Augustinianum, 1983–6).

Jan van Ruusbroec. *Opera omnia*, ed. G. de Baere (Turnhout: Brepols, 1988–).

    The Spiritual Espousals and Other Works, tr. J. A. Wiseman (New York: Paulist Press, 1985).

Jerome. *Lettres*, ed. and tr. J. Labourt (Paris: Les Belles Lettres, 1949–63).

    Opera (Corpus Christianorum, Series latina 72–) (Turnhout: Brepols, 1958–).

Joachim de Fiore. *Aspetti inediti della Vita e delle Opere*, ed. P. De Leo (Soveria Manelli: Rubbettino Editore, 1988).

    Expositio in apocalypsim (Venice, 1527; repr. Frankfurt: Minerva, 1964).

    Liber de concordia novi ac veteris testamenti, ed. E. R. Daniel, *Transactions of the American Philosophical Society* 73 (1983).

    Psalterium decem chordarum (Venice, 1527; repr. Frankfurt: Minerva, 1965).

    Tractatus super quatuor evangelia, ed. E. Buonaiuti (Rome: Tipografia del Senato, 1930).

Johannes Teutonicus. *Apparatus glossarum in Compilationem tertiam*, ed. K. Pennington (Vatican: Biblioteca Apostolica Vaticana, 1981).

    Apparatus glossarum in Compilationem quartam, in A. Augustín (ed.) *Antiquae collectiones decretalium* (Lerida, 1576).

    Glossa ordinaria, in Gratian, *Decretum Gratiani emendatum et annotationibus illustratum una cum glossis* (Paris, 1601).

John Baconthorpe. *Quaestiones in quatuor libros Sententiarum, et quodlibetales* (Cremona, 1618; repr. Westmead, UK: Gregg, 1969).

    Die "Quaestiones speculativae et canonicae" des Johannes Baconthorp über der sakramentalen Charakter, ed. E. Borchert (Munich: Schöningh, 1974).

John of Bassol. *Opera* (Paris, 1516–17).

John Blund. *Tractatus de anima*, ed. D. A. Callus and R. W. Hunt (London: Oxford University Press, 1970).

John Buridan. *In Metaphysicam Aristotelis questiones acutissimae* (Paris, 1518; repr. Frankfurt: Minerva, 1964).

    Jean Buridan's Logic: The Treatise on Supposition, the Treatise on Consequences, tr. P. King (Dordrecht: Reidel, 1985).

    "John Buridan's Philosophy of Mind: An Edition and Translation of Book III of his 'Questions on Aristotle's De anima' (Third Redaction), with Commentary and Critical and Interpretative Essay," ed. J. Zupko (Ph.D. dissertation: Cornell University, 1989).

    Questiones in Aristotelis tres libros de anima, ed. G. Lokert (Paris, 1516; repr. in B. Patar, *Le traité de l'âme* [Leuven: Éditions de l'Institut Supérieur de Philosophie, 1991]).

    Quaestiones in Praedicamenta, ed. J. Schneider (Munich: Beck, 1983).

    Quaestiones libri Porphyrii, ed. R. Tatarsynski, *Przeglad Tomistyczny* 2 (1986) 111–95.

    Quaestiones super De generatione et corruptione, ed. M. Streijger (Leiden: Brill, forthcoming).

    Quaestiones super decem libros Ethicorum Aristotelis ad Nicomachum (Paris, 1513; repr. Frankfurt: Minerva, 1968).

    Quaestiones super octo Physicorum (Venice, 1509: repr. Frankfurt: Minerva, 1964).

    Questiones longe super Librum Perihermeneias, ed. R. van der Lecq (Nijmegen: Ingenium, 1983).

Quaestiones super libris quattuor de caelo et mundo, ed. E. A. Moody (Cambridge, MA: Mediaeval Academy of America, 1942).

Sophismata, ed. T. K. Scott (Stuttgart-Bad Cannstatt: Frommann-Holzboog, 1977).

Sophisms on Meaning and Truth, tr. T. K. Scott (New York: Appleton-Century-Crofts, 1966).

Summulae de demonstrationibus, ed. L. M. de Rijk (Groningen: Ingenium, 2001).

Summulae de dialectica, tr. G. Klima (New Haven, CT: Yale University Press, 2001).

Summulae de practica sophismatum, ed. F. Pironet (Turnhout: Brepols 2004).

Summulae de praedicabilibus, ed. L. M. de Rijk (Nijmegen: Ingenium, 1995).

Summulae: de propositionibus, ed. R van der Lecq (Turnhout: Brepols, 2005).

Summulae de suppositionibus, ed. R. van der Lecq (Nijmegen: Ingenium, 1998).

Summulae in praedicamenta, ed. E. P. Bos (Nijmegen: Ingenium, 1994).

Tractatus de consequentiis, ed. H. Hubien (Leuven: Publications universitaires, 1976).

Tractatus de differentia universalis ad individuum, ed. S. Szyller, *Przeglad Tomistyczny* 3 (1987) 135–78.

Le traité de l'âme de Jean Buridan (De prima lectura), ed. B. Patar (Leuven: Éditions de l'Institut Supérieur de Philosophie, 1991).

John the Canon. *Quaestiones super Physica Aristotelis* (Padua, 1475).

John Capreolus. *Defensiones theologiae divi Thomae Aquinatis*, ed. C. Paban and T. Pègues (Turin: A. Cattier, 1900–8; repr. Frankfurt: Minerva, 1967).

On the Virtues, tr. K. White and R. Cessario (Washington, DC: Catholic University of America Press, 2001).

John Cassian. *Conlationes XXIIII*, ed. M. Petschenig (Vienna: apud C. Geroldi filium, 1886; repr. Vienna: Verlag der Österreichischen Akademie der Wissenschaften, 2004).

De institutis coenobiorum et de octo principalium vitiorum remediis, ed. M. Petschenig (Vienna: Tempsky, 1888; repr. Vienna: Verlag der Österreichischen Akademie der Wissenschaften, 2004).

John of Celaya. *Expositio in librum Praedicabilium Porphyri cum questionibus eiusdem secundum triplicem viam beate Thome, realium et nominalium* (Paris, 1516).

John Climacus. *Scala paradisi*, in J.-P. Migne (ed.) *Patrologiae cursus completus: series graeca* (Paris, 1857–66) LXXXVIII: 631–1164.

John of Dacia. *Opera*, ed. A. Otto (Copenhagen: Gad, 1955).

John of Damascus. *De fide orthodoxa: The Versions of Burgundio and Cerbanus*, ed. E. M. Buytaert (St. Bonaventure, NY: Franciscan Institute, 1955).

Dialectica, in B. Kotter (ed.) *Die Schriften des Johannes von Damaskos* (Berlin: De Gruyter, 1969).

Dialectica: Version of Robert Grosseteste, ed. O. A. Colligan (St. Bonaventure, NY: Franciscan Institute 1953).

"An Edition of Three Unpublished Translations by Robert Grosseteste of Three Short Works of John of Damascus," ed. M. Holland (Ph.D. dissertation: Harvard University, 1980).

John Dorp. *Perutile compendium totius logicae Joannis Buridani cum praeclarissima . . . Joannis Dorp expositione* (Venice, 1499; repr. Frankfurt: Minerva, 1965).

John Duns Scotus. *Contingency and freedom = Lectura I 39*, ed. and tr. A. Vos (Dordrecht: Kluwer, 1994).

Cuestiones Cuodlibetales, ed. and tr. F. Alluntis (Madrid: Biblioteca De Autores Cristianos, 1968).

Duns Scotus on the Will and Morality, tr. A. B. Wolter (Washington, DC: Catholic University of America Press, 1986).

Early Oxford Lecture on Individuation, ed. and tr. A. B. Wolter (St. Bonaventure, NY: Franciscan Institute, 2005).

God and Creatures: The Quodlibetal Questions, tr. F. Alluntis and A. B. Wolter (Princeton, NJ: Princeton University Press, 1975; repr. Washington, DC: Catholic University of America Press, 1987).

Opera omnia, ed. C. Balić *et al.* (Vatican City: Typis Polyglottis Vaticanis, 1950–).

Opera omnia, ed. L. Wadding (Lyon, 1639; repr. Hildesheim: Olms, 1968).

Opera omnia (Paris: Vivès, 1891–5).

Opera philosophica, ed. T. Noone *et al.* (St. Bonaventure, NY: Franciscan Institute, 1997–2006).

Philosophical Writings, tr. A. B. Wolter (Edinburgh: Nelson, 1962; repr. Indianapolis, IN: Hackett, 1987).

Questions on the Metaphysics of Aristotle, tr. G. J. Etzkorn and A. B. Wolter (St. Bonaventure, NY: Franciscan Institute, 1997–98).

Reportatio I-A, ed. A. B. Wolter and O. V. Bychkov (St. Bonaventure, NY: St. Bonaventure University Press, 2004).

Reportatio IIA (manuscript in Turin K, ii, 26).

A Treatise on God as First Principle [De primo principio], ed. and tr. A. B. Wolter (Chicago: Franciscan Herald Press, 1966; rev. edn, 1983).

John of Erfurt. *Summa confessorum*, ed. N. Brieskorn (Frankfurt: Lang, 1980–1).

John of Freiburg. *Summa confessorum* (Augsburg, 1476).

John of Garland. *Ars lectoria Ecclesie*, ed. E. Marguin-Hamon (Turnhout: Brepols, 2003).

La Clavis compendii *de Jean de Garlande: édition critique, traduite et commentée*, ed. and tr. E. Marguin-Hamond (Turnhout: Brepols, 2008).

Compendium gramatice, ed. T. Haye (Weimar: Böhlau, 1995).

The Dictionarius, ed. and tr. B. B. Rubin (Lawrence, KS: Coronado Press, 1981).

John Gerson. *The Consolation of Theology = De consolatione theologiae*, ed. and tr. C. L. Miller (New York: Abaris Books, 1998).

Early Works, tr. B. McGuire (New York: Paulist Press, 1998).

Œuvres complètes, ed. P. Glorieux (Paris: Desclée de Brouwer, 1960–73).

Opus tripartitum, in G. Ouy (ed.) *Gerson bilingue: Les deux rédactions latine et française de quelques œuvres du chancelier parisien* (Paris: Champion, 1998).

Selections from A Deo exivit, Contra curiositatem studentium and De mystica theologia speculative, tr. S. Ozment (Leiden: Brill, 1969).

John of Holland. *Four Tracts on Logic (Suppositiones, Fallacie, Obligationes, Insolubilia)*, ed. E. P. Bos (Nijmegen: Artistarium, 1985).

John Huntman. *Logica*, ed. L. M. de Rijk (Stuttgart-Bad Cannstatt: Frommann-Holzboog, 1999).

John Hus. *De ecclesia: The Church*, tr. D. S. Schaff (New York: C. Scribner's Sons, 1915; repr. Westport, CN: Greenwood Press, 1974).

Documenta magistri Johannis Hus, ed. F. Palacky (Prague: Tempsky, 1869).

Korespondence a dokumenty, ed. V. Novotný (V Praze, Nákl: Komise pro vydávání pramenů náboženského hnutí českého, 1920).

The Letters of John Hus, tr. M. Spinka (Manchester: Manchester University Press, 1972).

Opera omnia, ed. V. Flajshans (Prague: J. Bursík and J. R. Vilímek, 1903–7).

Tractatus de ecclesia, ed. S. H. Thomson (Boulder: University of Colorado Press, 1956).

John Italos. *Opera*, ed. N. Ketschakmadze (Tbilisi: Mezniereba, 1966).

Quaestiones Quodlibetales (ΑΠΟΡΙΑΙ ΚΑΙ ΛΥΣΕΙΣ), ed. P. Joannou (Ettal: Buch-Kunstverlag, 1956).

John of Jandun. *In libros Aristotelis De coelo et mundo quae extant quaestiones subtilissimae* (Venice: Iuntas, 1552).

Quaestio de habitu intellectus, ed. Z. Kuksewicz, *Mediaevalia philosophica Polonorum* 9 (1961) 3–30.

Quaestio de infinitate vigoris Dei, ed. Z. Kuksewicz, *Manuscripta* 9 (1965) 167–70.

Quaestio de notioritate universalium, ed. Z. Kuksewicz, *Mediaevalia philosophica Polonorum* 14 (1970) 87–97.

Quaestio de principio individuationis, ed. Z. Kuksewicz, *Mediaevalia philosophica Polonorum* 11 (1963) 93–106.

Quaestiones in duodecim libros Metaphysicae iuxta Aristotelis et magni Commentatoris intentionem disputatae (Venice: Hieronymus Scotus, 1553; repr. Frankfurt: Minerva, 1966).

Super libros Aristotelis De anima subtilissimae quaestiones (Venice, 1587; repr. Frankfurt: Minerva, 1966).

Super octo libros Aristotelis de physico auditu subtilissimae quaestiones (Venice, 1587; repr. Frankfurt: Minerva, 1969).

Super parvis naturalibus Aristotelis quaestiones perutiles ac eleganter discussae, ed. M. Zimara (Venice, 1505).

Tractatus de laudibus Parisius, in Le Roux de Lincy and L. M. Tisserand (ed.) *Paris et ses historiens aux XIVᵉ et XVᵉ siècles* (Paris: Imprimerie Impériale, 1867) 32–79.

Tractatus de sensu agente, in A. Pattin (ed.) *Pour l'histoire du sens agent: La controverse entre Barthélemy de Bruges et Jean de Jandun, ses antécédents et son évolution* (Leuven: Leuven University Press, 1988) 166–222.

John of La Rochelle. *Eleven Marian Sermons*, ed. K. F. Lynch (St. Bonaventure, NY: Franciscan Institute, 1961).

Die neuen Quästionen der Gnadentheologie, ed. L. Hödl (Munich: Huber, 1964).

Somme de l'âme, tr. J.-M. Vernier (Paris: Vrin, 2001).

Summa de anima, ed. J. G. Bougerol (Paris: Vrin, 1995).

Summa de vitiis (ms. in Paris, Bibliothèque Nationale lat. 16417).

Tractatus de divisione multiplici potentiarum animae, ed. P. Michaud-Quantin (Paris: Vrin, 1964).

John le Page. *Rationes super predicamenta Aristotelis*, ed. E. Franceschini, *Sophia* 2 (1934) 172–82, 329–50, 476–86.

John of Legnano. *Tractatus de bello, de represaliis et de duello*, ed. T. E. Holland (Oxford: Oxford University Press, 1917; repr. New York: Oceania, 1964; Buffalo: Hein, 1995).

John Lesage. *Quodlibet I*, ed. P. Glorieux (Paris: Vrin, 1958)

John of Mechlinia. *Determinatio utrum perfecta Dei opera possint impediri daemonis malitia* (Heidelberg, 1493).

Textum parvorum naturalium Aristotelis: cum commentario clarissimo secundum doctrinam magni Episcopi Ratisponensis (Cologne, 1491).

Textus trium librorum De anima Aristotelis cum commentario secundum doctrinam venerabilis domini Alberti Magni (Cologne, 1491).

Le Tractatus de homine de Jean de Malines: Contribution à l'histoire de l'albertisme à l'Université de Cologne, ed. A. Pattin (Leuven: Uitgave Tijdschrift voor filosofie, 1977).

John of Mirecourt. "Questioni inedite di Giovanni di Mirecourt sulla conoscenza," ed. A. Franzinelli, *Rivista critica di storia della filosofia* 13 (1958) 319–40, 415–49.

"Questioni inedite tratte dal I libro del commento alle Sentenze di Giovanni di Mirecourt (qq. 13–16)," ed. M. Parodi, *Medioevo* 3 (1978) 237–84; 4 (1978) 59–92.

"Die zwei Apologien des Jean de Mirecourt," ed. F. Stegmüller, *Recherches de théologie ancienne et médiévale* 5 (1933) 40–78, 192–204.

John of Naples. *Quaestiones disputatae* (Naples: D. Gravina, 1618).

Utrum licite possit doceri Parisius doctrina fratris Thome quantum ad omnes conclusiones eius, in C. Jellouschek (ed.) *Xenia Thomistica* (Rome: Typis polyglottis Vaticanis, 1925) 73–104.

John of Nova Domus. *Tractatus universalium*, in G. Meersseman (ed.) *Jahrbuch des Kölnischen Geschichtsvereins* 18 (1936) 144–68.

Tractatus de esse et essentia, in G. Meersseman (ed.) *Geschichte des Albertismus* (Paris: Haloua, 1933) I: 91–200.

De universali reali, ed. A. G. Weiler, *Vivarium* 6 (1968) 108–54.

John of Paris. *Apologia*, in J.-P. Müller (ed.) "À propos du Mémoire justificatif de Jean Quidort," *Recherches de théologie ancienne et médiévale* 19 (1952) 344–51.

Commentaire sur les Sentences, ed. J.-P. Müller (Rome: Herder, 1961–4).

Correctorium corruptorii "Circa", ed. J.-P. Müller (Rome: Herder, 1941).

De modo existendi corpus Christi in sacramento altaris, ed. A. Pattin, *Angelicum* 54 (1977) 184–206.

De potestate regia et papali, ed. F. Bleienstein (Stuttgart: Klett, 1969).

Determinatio de modo existendi corporis Christi in sacramento altaris, ed. and tr. J. H. Martin, *Viator* 6 (1975) 214–40.

On Royal and Papal Power, tr. J. A. Watt (Toronto: Pontifical Institute of Mediaeval Studies, 1971).

Quaestio de principio individuationis, ed. J.-P. Müller, in J. Möller and H. Kohlenberger (eds.) *"Virtus Politica": Festgabe zum 75. Geburstag von Alfons Hufnagel* (Stuttgart-Bad Cannstatt: F. Frommann, 1974) 335–56.

Quodlibeta, ed. A. J. Heiman, in J. R. O'Donnell (ed.) *Nine Mediaeval Thinkers: A Collection of Hitherto Unedited Texts* (Toronto: Pontifical Institute of Mediaeval Studies, 1955).

John Pecham. *De numeris misticis*, ed. B. Hughes, *Archivum Franciscanum Historicum* 78 (1985) 3–28, 333–83.

Perspectiva communis, in D. C. Lindberg (ed. and tr.) *John Pecham and the Science of Optics* (Madison: University of Wisconsin Press, 1970).

Quaestiones disputatae, ed. G. J. Etzkorn *et al.* (Grottaferrata: Editiones Collegii S. Bonaventurae, 2002).

Quaestiones tractantes de anima, ed. H. Spettmann (Münster: Aschendorff, 1918).

Questions Concerning the Eternity of the World, ed. and tr. I. Brady and V. Potter (New York: Fordham University Press, 1993).

Quodlibeta quatuor, ed. G. J. Etzkorn and F. M. Delorme (Grottaferrata: Editiones Collegii S. Bonaventurae, 1989).

Registrum epistolarum fratris Johannis Peckham, archiepiscopi Cantuariensis, ed. C. T. Martin (London: Longman, 1882–5).

Summa de esse et essentia, ed. F. Delorme (Rome: Studi Franciscani, 1928).

Tractatus de anima, ed. G. Melanus (Florence: Studi Franciscani, 1948).

Tractatus tres de paupertate, ed. C. Kingsford *et al.* (Aberdoniae: Typis Academicis, 1910; repr. Farnborough: Gregg, 1969).

Tractatus de perspectiva, ed. D. C. Lindberg (St. Bonaventure, NY: Franciscan Institute, 1972).

Tractatus pauperis, ed. A. van den Wyngaert (Paris: Éditions de la France Franciscaine, 1925).

John Petrizi. *Commentaria in Procli Diadochi Stoicheiosein Theologiken*, ed. S. Nutsubidse and S. Kauchtschischvili (Tbilisi: Sumptibus Universitatis Tblisiensis, 1937).

John of Pouilly. *Quodlibeta* (ms. in Paris, Bibliothèque Nationale lat. 15372).

John Rigaud. *Compendium pauperis*, ed. F. Willer (Basel: Jakob de Pforsten, 1501).

John of Ripa. *Conclusiones*, ed. A. Combes (Paris: Vrin, 1957).

Determinationes, ed. A. Combes (Paris: Vrin, 1957).

"Jean de Ripa I Sent. Dist. XXXVII: 'De modo inexistendi divinae essentiae in omnibus creaturis'," ed. A. Combes *et al.*, *Traditio* 23 (1967) 191–268.

Lectura super Primum sententiarum, ed. A. Combes and F. Ruello (Paris: Vrin, 1961–70).

Quaestio de gradu supreme, ed. A. Combes and P. Vignaux (Paris: Vrin, 1964).

Super primum Sententiarum Johannis de Ripa lecturae abbreviatio: Prologus, abbrev. Paul of Venice, ed. F. Ruello (Florence: Olschki, 1980).

Super primum Sententiarum Johannis de Ripa lecturae abbrevatio: Liber 1, abbrev. Paul of Venice; ed. F. Ruello (Florence: SISMEL, Edizioni del Galluzzo, 2000).

John of Salisbury. *Entheticus maior et minor*, ed. and tr. J. van Laarhoven (Leiden: Brill, 1987).

Frivolities of Courtiers and Footprints of Philosophers: Being a Translation of the Policraticus of John of Salisbury, ed. and tr. J. B. Pike (Minneapolis: University of Minnesota Press 1938).

The Letters of John of Salisbury, ed. and tr. W. J. Millor *et al.*, rev. edn (London: Nelson, 1955–79; rev. edn Oxford: Clarendon Press, 1986–).

Memoirs of the Papal Court [Historia pontificalis], ed. and tr. M. Chibnall (London: Nelson, 1956; repr. Oxford: Oxford University Press, 1986).

Metalogicon, ed. J. B. Hall and K. S. B. Keats-Rohan (Turnhout: Brepols, 1991).

The Metalogicon, tr. D. McGarry (Berkeley: University of California Press, 1962).

Policratici, sive, de nugis curialium et vestigiis philosophorum libri VIII, ed. C. C. J. Webb (Oxford: Clarendon Press, 1909; reprinted New York: Arno Press, 1979).

Policraticus, tr. C. J. Nederman (Cambridge: Cambridge University Press, 1990).

Policraticus I–IV, ed. K. S. B. Keats-Rohan (Turnhout: Brepols, 1993).

The Statesman's Book of John of Salisbury, tr. J. Dickinson (New York: Knopf, 1927).

Vita Sancti Anselmi and Vita Sancti Thomae, in I. Biffi (ed.) *Anselmo e Becket, due vite* (Milan: Jaca, 1990).

John Scottus Eriugena. *Annotationes in Marcianum*, ed. C. Lutz (Cambridge, MA: Medieval Academy of America, 1939).

Commentaire sur l'Evangile de Jean, ed. E. Jeauneau (Paris: Cerf, 1972).

De divina praedestinatione liber, ed. G. Madec (Turnhout: Brepols, 1978).

De praedestinatione liber: Dialettica e teologia all'apogeo della rinascenza carolingia, ed. E. Mainoldi (Florence: SISMEL, Edizioni del Galluzzo, 2003).

Expositiones in Ierarchiam coelestem, ed. J. Barbet (Turnhout: Brepols, 1975).

Glossae Divinae Historiae: The Biblical Glosses of John Scottus Eriugena, ed. J. Contreni and. P. Ó Néill (Florence: SISMEL, Edizioni del Galluzzo, 1997).

L'homélie sur le Prologue de Jean, ed. E. Jeauneau (Paris: Cerf, 1969).

Periphyseon, ed. E. Jeauneau (Turnhout: Brepols, 1996–).

Periphyseon, ed. I.-P. Sheldon-Williams (Dublin: Institute for Advanced Studies, 1968–).

Periphyseon (The Division of Nature), tr. I.-P. Sheldon-Williams and J. J. O'Meara (Montréal: Bellarmin, 1987).

Treatise on Divine Predestination, tr. M. Brennan (Notre Dame, IN: University of Notre Dame Press, 1998).

John Sharpe. *Quaestio super universalia*, ed. A. D. Conti (Florence: Olschki, 1990).

John of Sterngassen. *Johannes von Sterngassen und sein Sentenzenkommentar*, ed. W. Senner (Berlin: Akademie, 1995).

John Tarteys. *Obligationes*, ed. E. J. Ashworth, *Documenti e studi sulla tradizione filosofica medievale* 3 (1992) 653–703.

Problema correspondens libello Porphyrii (ms. in Lambeth Palace, ms. 393).

Problema correspondens libello Porphyrii [excerpts], ed. A. D. Conti, in John Sharpe, *Quaestio super universalia* (Florence: Olschki, 1990) 165–87.

John Tauler. *Sermons*, ed. A. L. Corin (Liège: H. Vaillant-Carmanne, 1924–9).

Sermons, tr. M. Shrady (New York: Paulist Press, 1985).

John of Wales. *Communiloquium sive Summa collationum* (Strasbourg, 1489; repr. Wakefield: S. R. Publishers, 1964).

John Wenck. *Das Büchlein von der Seele*, ed. G. Steer (Munich: Fink, 1967).

Nicholas of Cusa's Debate with John Wenck, ed. and tr. J. Hopkins (Minneapolis, MN: Banning, 1988).

John Wyclif. *De civili dominio*, ed. R. L. Poole and J. Loserth (London: Trübner, 1885–1904).

    De dominio divino libri tres, ed. R. L. Poole (London: Trübner, 1890).

    De ecclesia, ed. J. Loserth and F. D. Matthew (London: Trübner, 1886).

    De ente librorum duorum excerpta, ed. M. Dziewicki (London: C. K. Paul, 1909).

    De ente praedicamentali, ed. R. Beer (London: Trübner, 1891).

    De eucharistia, ed. J. Loserth (London: Trübner, 1892).

    De logica, ed. M. H. Dziewicki (London: Trübner, 1893–9).

    De potestate papae, ed. J. Loserth (London: Trübner, 1907).

    De Trinitate, ed. A. du Pont Breck (Boulder: University of Colorado Press, 1962).

    De veritate sacrae scripturae, ed. R. Buddensieg (London: Trübner, 1905–7).

    The English Works of Wyclif, Hitherto Unprinted, ed. F. D. Matthew (London: Trübner, 1880; repr. New York: Kraus, 1978).

    English Wyclif Tracts 1–3, ed. C. Lindberg (Oslo: Novus Forlag, 1991).

    Miscellanea philosophica, ed. M. H. Dziewicki (London: Trübner, 1902).

    On the Truth of the Holy Scripture, tr. I. C. Levy (Kalamazoo, MI: Medieval Institute Publications, 2001).

    On Universals, tr. A. Kenny (Oxford: Clarendon Press, 1985).

    Polemical Works in Latin, R. Buddensieg (London: Trübner, 1883; repr. New York: Johnson, 1966).

    Summa de ente libri primi tractatus primus et secundus, ed. S. H. Thomson (Oxford: Clarendon Press, 1930).

    Summa insolubilium, ed. P. V. Spade and G. A. Wilson (Binghamton, NY: Medieval and Renaissance Texts and Studies, 1986).

    Tractatus de universalibus, ed. I. J. Müller (Oxford: Clarendon Press, 1985).

    Trialogus, ed. G. Lechler (Oxford: Clarendon Press, 1869).

Jordanus. *Notulae super Priscianum Minorem: Partial Edition and Introduction*, ed. M. Sirridge, *Cahiers de l'Institut du Moyen Age Grec et Latin* 36 (1980) 1–104.

Joseph Albo. *Sefer ha-ʾIkkarim: Book of Principles*, ed. and tr. I. Husik (Philadelphia, PA: Jewish Publication Society of America, 1929).

Joseph ibn Caspi. *ʿAmude kesef u-maskiyot kesef: shene perushim ʿal sefer ha-Moreh leha-Rambam*, ed. S. Werbluner (Frankfurt: Y. F. Bakh, 1848).

    Geviaʾ Kesef, ed. and tr. B. Herring (New York: Ktav, 1982).

Joseph ibn Ṣaddiq. *The Microcosm*, ed. and tr. J. Haberman (Madison, NJ: Fairleigh Dickinson University Press, 2003).

Juan Luis Vives. *De anima et vita* (Basel, 1538; repr. Turin: Bottega d'Erasmo, 1963).

Judah Halevi. *Kitāb al-radd wa al-dalīl fī al-dīn al-dhalīl [Khazari],* ed. D. Z. Baneth (Jerusalem: Magnes Press, 1977).

    The Kuzari = Kitab al Khazari: An Argument for the Faith of Israel, tr. H. Hirschfeld (New York: Schocken, 1964).

Julian of Norwich. *A Book of Showings*, ed. E. Colledge and J. Walsh (Toronto: Pontifical Institute of Mediaeval Studies, 1978).

    Showings, tr. E. Colledge and J. Walsh (New York: Paulist Press, 1978).

al-Jurjānī, ʿAlī ibn Muḥammad. *Le livre des définitions*, tr. M. Gloton (Beirut: Dār Albouraq, 2006).

    Risālat al-wujud, ed. N.-A. Taqawi (Tehran: Rangi Press, 1942).

    Sharh al-mawāqif fī ʿilm al-kalām, ed. A. al-Mahdi (Cairo: Maktabat al-Azhar).

    Al-Taʿrīfāt, ed. A. R. ʿUmayrah (Beirut: ʿĀlam al-Kutub, 1987).

Justinian. *Corpus juris civilis*, ed. P. Krueger *et al.* (Berlin: Weidmann, 1954).

al-Juwaynī. *Al-Burhān fī uṣūl al-fiqh*, ed. A. al-Dīb (Cairo: Dār al-Anṣār, 1980).

Al-Irshād ila qawāṭiʿ al-adillah fī uṣūl al-iʿtiqād (The Guide to the Cogent Proofs of the Principles of Faith), ed. M. Mūsa and A. ʿAbd al-Ḥamīd (Cairo: Maktabat al-Khānjī, 1950).

Al-Shāmil fī uṣūl al-dīn, ed. H. Klopfer (Cairo: Dār al-ʿarab, 1959).

al-Kindī, ʿAbd al-Masīḥ. *The Apology of al Kindy*, tr. W. Muir (London: Smith Elder, 1882).

Exposición y refutación del Islam: la versión latinade las epistolas de al-Hasimi y al-Kindi, ed. F. González Muñoz (Coruña: Universidade da Coruña, 2005).

Risālat, ed. A. Tien (London, 1880).

al-Kindī, Abū Yūsuf. "Al-Kindi's 'On Definitions and Descriptions of Things'," tr. F. Klein-Franke *Le Muséon: Revue des études orientales* 95 (1982) 191–216.

Cinq épîtres, ed. D. Gimaret (Paris: Centre National de la Recherche Scientifique, 1976).

De aspectibus, in A. Björnbo and S. Vogel (eds.) *Alkindī, Tideus und Pseudo-Euklid: Drei optische Werke* (Leipzig: Teubner, 1912).

De radiis stellarum, ed. M.-T. D'Alverny and F. Hudry, *Archives d'histoire doctrinale et littéraire du moyen âge* 41 (1974) 139–260.

Essay on How to Banish Sorrow, in H. Ritter and R. Walzer (eds.) *Uno scritto morale inedito di al-Kindi* (Rome: Tipografo della Reale Accademia Nazionale dei Lincei, 1938).

Fī al-ṣināʿa al-ʿuẓmā, ed. A. T. al-Sayyid Aḥmad (Cyprus: Dār al-Shabbāb, 1987).

Metaphysics: A Translation of Yaʿqub ibn Ishaq al-Kindi's Treatise "On First Philosophy", tr. A. Ivry (Albany: State University of New York Press, 1974).

Le moyen de chasser les tristesses et autres textes éthiques, ed. S. Mestiri and G. Dye (Paris: Fayard, 2004).

Œuvres philosophiques et scientifiques d'al-Kindi: vol. I: *L'optique et la catoptrique*, ed. R. Rashed (Leiden: Brill, 1997).

Œuvres philosophiques et scientifiques d'al-Kindi: vol. II: *Métaphysique et cosmologie*, ed. R. Rashed and J. Jolivet (Leiden: Brill, 1998).

The Philosophical Works of al-Kindi tr. P. Adamson and P. E. Pormann (Karachi: Oxford University Press, forthcoming).

Rasāʾil al-falsafiyya, ed. M. Abū Rīda (Cairo: Dār al-Fikr al-ʿArabī, 1950–3).

Uno scritto introduttivo allo studio di Aristotele, tr. M. Guidi and R. Walzer (Rome: Reale Accademia Nazionale dei Lincei, 1940).

Treatise on the Intellect, ed. R. J. McCarthy, *Islamic Studies* 3 (1964) 119–49.

al-Kirmānī. *Kitāb al-riyāḍ*, ed. A. Tāmir (Beirut: Dār al-Thaqāfa, 1960).

Kitāb rāḥa al-ʿaql, ed. M. K. Ḥusayn and M. Ḥilmī (Cairo: Dār al-Fikr al-ʿArabī, 1953).

Master of the Age: An Islamic Treatise on the Necessity of the Imamate, ed. and tr. P. E. Walker (London: I. B. Tauris, 2007).

La Grange, Jean-Baptiste de. *Les principes de la philosophie contre les nouveaux philosophes, Descartes, Rohault, Regius, Gassendi, le P. Maignan, etc.* (Paris: Georges Josse, 1682).

Lambert. *Logica (Summa Lamberti)*, ed. F. Alessio (Florence: La Nuova Italia, 1971).

Landulph Caracciolo. *Commentarium in secundum librum Sententiarum* (Naples, 1487).

Sermones in quatuor Evangelia (Naples, 1637).

Lanfranc. *The Letters of Lanfranc, Archbishop of Canterbury*, ed. and tr. H. Clover and M. Gibson (Oxford: Clarendon Press, 1979).

Liber de corpore et sanguine Domini, ed. C. Martello (Catania: CUECM, 2001).

The Monastic Constitutions, ed. D. Knowles and C. Brooke (New York: Oxford University Press, 2002).

al-Lawkarī. *Bayān al-ḥaqq bi-ḍamān al-ṣidq: al-ʿIlm al-ilāhī*, ed. I. Dībājī (Tehran: International Institute of Islamic Thought and Civilization, 1995).

Bayān al-ḥaqq bi-ḍamān al-ṣidq: al-Manṭiq 1. al-Madkhal, ed. I. Dībājī (Tehran: Amīr Kabīr, 1985).

Le Bossu, René. *Parallele des principes de la Physique d'Aristote et de celle de René Des Cartes* (Paris, 1674; repr. Paris: Vrin, 1981).

Leibniz, Gottfried Wilhelm. *Philosophical Essays*, tr. R. Ariew and D. Garber (Indianapolis, IN: Hackett, 1989).

   Die philosophischen Schriften, ed. C. I. Gerhardt (Berlin, 1875–90; repr. Hildesheim: Olms, 1965).

Levi ben Gershom. *The Commentary of Levi ben Gerson on the Book of Job*, ed. A. L. Lassen (New York: Bloch, 1946).

   Commentary on Song of Songs, ed. M. Kellner (New Haven, CT: Yale University Press, 1998).

   The Logic of Gersonides: An Analysis of Selected Doctrines, ed. C. H. Manekin (Dordrecht: Kluwer, 1992).

   Sefer Maʿaseh Hoshev, ed. G. Lange (Frankfurt: Golde, 1909).

   Sefer Milhamot Ha-Shem (Leipzig, 1866; repr. Berlin: L. Lames, 1923).

   The Wars of the Lord, tr. S. Feldman (Philadelphia, PA: Jewish Publication Society, 1984–99).

Locke, John. *Second Treatise of Government*, ed. C. B. Macpherson (Indianapolis, IN: Hackett, 1980).

Lorenzo Valla. *Encomium Sancti Thomae de Aquino*, in E. Garin (ed.) *Opera omnia* (Turin: Bottega d'Erasmo, 1962), vol. II.

Macrobius. *Maximou Planoudē tou Hypomnēmatos eis ton Oneiron tou Skipiōnos tou Makrobiou metaphrasis*, ed. A. C. Megas (Thessaloniki: Art of Text, 1995).

   Saturnalia apparatu critico instruxit, In Somnium Scipionis commentarios selecta varietate lectionis ornavit, ed. J. Willis (Leipzig: Teubner, 1970).

Manegold of Lautenbach. *Ad Gebehardum liber*, in K. Francke (ed.) *Libelli de lite* (Hannover: Impensis Bibliopolii Hahniani, 1891) I: 308–430.

   Liber contra Wolfelmum, tr. R. Ziomkowski (Paris: Peeters, 2002).

   Liber Magistri Manegaldi contra Wolfelmum Coloniensem, ed. W. Hartmann (Weimar: Böhlau, 1972; repr. Munich: Monumenta Germaniae Historica, 1991).

Marguerite of Oingt. *Les œuvres de Marguertie d'Oingt*, ed. and tr. A. Duraffour *et al.* (Paris: Les Belles Lettres, 1965).

   The Writings of Margaret of Oingt, Medieval Prioress and Mystic (d. 1310), tr. R. Blumenfeld-Kosinski (Newburyport, MA: Focus Information Group, 1990).

Marguerite Porete. *Le mirouer des simple âmes*, ed. R. Guarnieri (Turnhout: Brepols, 1986).

   The Mirror of Simple Souls, tr. E. Colledge *et al.* (Notre Dame, IN: University of Notre Dame Press, 1999).

Marsilius of Inghen. *Abbreviationes libri Physicorum* (Venice, 1521).

   Quaestiones de generatione et corruptione (Venice, 1505; repr. Frankfurt: Minerva, 1970).

   Quaestiones super quattuor libros Sententiarum, ed. G. Wieland *et al.* (Leiden: Brill, 2000–).

   Treatises on the Properties of Terms: A First Critical Edition of the Suppositiones, Ampliationes, Appellationes, Restrictiones and Alienationes, ed. and tr. E. P. Bos (Dordrecht: Kluwer, 1983).

Marsilius of Padua, *The Defender of the Peace*, tr. A. Brett (Cambridge: Cambridge University Press, 2005).

   Defensor pacis, ed. C. W. Previté-Orton (Cambridge: Cambridge University Press, 1928).

   Defensor pacis, tr. A. Gewirth (New York: Columbia University Press, 1956; repr. 2001).

   Œuvres mineures, ed. C. Jeudy and J. Quillet (Paris: Éditions de Centre National de la Recherche Scientifique, 1979).

   Writings on the Empire: Defensor minor and De translatione Imperii, tr. C. J. Nederman (Cambridge: Cambridge University Press, 1993).

Martianus Capella. *De nuptiis Philologiae et Mercurii*, ed. J. Willis (Leipzig: Teubner, 1983).

Martin of Dacia. *Opera*, ed. H. Roos (Copenhagen: Gad, 1961).

Martinus Anglicus. *De obligationibus* = *Uber die Verpflichtungen*, ed. F. Schupp (Hamburg: Meiner, 1993).

Māshāʾallāh. *On the Elements and Orbs*, tr. [Latin] Gerard of Cremona, ed. J. Heller (Nuremberg, 1549).

Matthew of Aquasparta. *Quaestiones disputatae de anima VI*, ed. A.-J. Gondras, *Archives d'histoire doctrinale et littéraire du moyen âge* 32 (1957) 203–352.

    Quaesiones disputatae de anima XIII, ed. A.-J. Gondras (Paris: Vrin, 1961).

    Quaesiones disputatae de anima separata, de anima beata, de ieiunio et de legibus (Quaracchi: Editiones Collegii S. Bonaventurae, 1959).

    Quaesiones disputatae de fide et de cognitione, 2nd edn (Quaracchi: Editiones Collegii S. Bonaventurae, 1957).

    Quaesiones disputatae de gratia, ed. V. Doucet (Quaracchi: Editiones Collegii S. Bonaventurae, 1935).

    Quaesiones disputatae de illuminatione, in Bonaventure, *De humanae cognitionis ratione* (Quaracchi: Editiones Collegii S. Bonaventurae, 1883) 87–177.

    Quaesiones disputatae de productione rerum et de providentia, ed. G. Gál (Quaracchi: Editiones Collegii S. Bonaventurae, 1956).

Matthew of Bologna. *Quaestiones super modos significandi*, in I. Rosier (ed.) "Mathieu de Bologne et les divers aspects du pré-modisme," in D. Buzzetti *et al.* (eds.) *L'insegnamento della logica a Bologna nel XIV secolo* (Bologna: Istituto per la Storia dell'Università, 1992) 73–164.

Matthew of Gubbio. *Le "Quaestiones de anima" attribuite a Matteo da Gubbio: edizione del testo (cod. Fesulano 161, ff. 84v–103v, Florence, Biblioteca Medicea Laurenziana)*, ed. A. Ghisalberti (Milan: Vita e Pensiero, 1981).

Matthew of Orleans. *Sophistaria sive Summa communium distinctionum circa sophismata accidentium*, ed. J. Spruyt (Leiden: Brill, 2001).

al-Māturīdi, Abū Mansūr. *Kitāb al-tawḥīd*, ed. F. Kholeif (Beirut: Dār el-Machreq, 1970).

    Tafsīr al-Qurʾān al-ʿaẓim, al-musamma Taʾwīlāt ahl al-sunnah, ed. F. Y. al-Khaymī (Beirut: Muʾassasat al-Risālah Nāshirūn, 2004).

al-Māwardī. *Al-Aḥkām al-sulṭāniyya wa-al-wilāyāt al-dīnīyya*, ed. M. F. al-Sirjānī (Cairo: al-Maktabah al-Tawfīqīyya, 1978).

    Al-Ahkam as-Sultaniyyah = *The Laws of Islamic Governance*, tr. A. Yate (London: Ta-Ha, 1996).

    Kitāb adab al-dunyā wa-al-dīn, ed. M. F. Abū Bakr (Cairo: Dār al-Miṣrīyah al-Lubnānīyah, 1988).

Maximus the Confessor. *Ambigua*, tr. [Latin] John Scottus Eriugena, ed. E. Jeauneau (Turnout: Brepols, 1988).

    Censurae de caritate, tr. [Latin] Cerbanus, ed. I. Boronkai, *Acta Antiqua Academiae Scientiarum Hungaricae* 23 (1975) 305–18.

    Mystagogia, tr. [Latin] Anastasius Bibliothecarius, *Revue de l'Orient Chrétien* 10 (1905) 289–313.

    Quaesiones ad Thalassium II. Q. LVI-LXV, tr. [Latin] John Scottus Eriugena, ed. C. Laga and C. Steel (Turnhout: Brepols, 1990).

    Scripta saeculi VII vitam Maximi Confessoris illustrantia: una cum latina interpretatione Anastasii Bibliothecarii iuxta posita, ed. P. Allen and B. Neil (Turnhout: Brepols, 1999).

Mechtild of Hackeborn. *The Booke of Gostlye Grace*, ed. T. A. Halligan (Toronto: Pontifical Institute of Mediaeval Studies, 1979).

    Liber specialis gratiae (Revelationes Gertrudianae et Mechtildianae, vol. II) (Poitiers: H. Oudin, 1877).

Mechtild of Magdeburg. *Das fließende Licht der Gottheit*, ed. and tr. G. Vollmann-Profe (Frankfurt: Deutscher Klassiker Verlag, 2003).

    The Flowing Light of the Godhead, tr. F. Tobin (New York: Paulist Press, 1998).

Mersenne, Marin. *La correspondance du P. Marin Mersenne, religieux minime*, ed. C. de Waad *et al.* (Paris: Presses universitaires de France, 1933–88).

Methodius of Olympus. *De resurrectione*, in G. N. Bonwetsch (ed.) *Methodius* (Leipzig: J. C. Hinrichs, 1917).

Michael of Ephesus. *On the Movement and Progression of Animals*, tr. A. Preuss (Hildesheim: Olms, 1981).

Michael of Ephesus and Aspasius. *On Aristotle's Nicomachean Ethics 8 and 9*, tr. D. Konstan (Ithaca, NY: Cornell University Press, 2001).

Michael of Marbais. *Summa de modis significandi*, ed. L. G. Kelly (Stuttgart-Bad Cannstatt: Frommann-Holzboog, 1995).

Michael Psellos. *Aristotelis per Hermenias liber* (Venice: H. Scotus, 1541).

    Chronographie, ed. E. Renauld (Paris: Les Belles Lettres, 1926–8).

    De omnifaria doctrina, ed. L. G. Westerink (Utrecht: Beigers, 1948).

    Fourteen Byzantine Rulers: The Chronographia, tr. E. R. A. Sewter, rev. edn (Baltimore, MD: Penguin, 1966).

    In Aristotelis De interpretatione paraphrasis, ed. A. Manutius (Venice, 1503).

    Philosophica minora, ed. J. M. Duffy and D. J. O'Meara (Leipzig: Teubner, 1989–92).

    Scripta minora, ed. E. Kurtz and F. Drexl (Milan: Vita e Pensiero, 1936–41).

    Theologica, ed. P. Gautier (Leipzig: Teubner, 1989).

Michael Scott. *Liber phisionomie* (Cologne: C. de Syrickzee, 1508).

The Mishnah, tr. H. Danby (Oxford: Clarendon Press, 1933).

Miskawayh. "De l'intellect et de l'intelligible (Fī l-ʿaql wa-l-maʿqūl)," ed. M. Arkoun *Arabica* 11 (1964) 80–7.

    An Epistle on the Intellect and the Intelligible, tr. R. Marcotte, *Islamic Culture* 70 (1996) 1–17.

    The Refinement of Character, tr. C. K. Zurayk (Beirut: American University of Beirut, 1968).

    Tahdhīb al-akhlāq, ed. C. Zurayk (Beirut: American University of Beirut Centennial Publications, 1966).

    Tajārib al-umam, in H. F. Amedroz and D. S. Margoliouth (ed. and tr.) *The Eclipse of the Abbasid Caliphate* (Oxford: Blackwell, 1920–1).

Moses ibn Ezra. *Kitāb al-muḥāḍara wal-mudākara*, ed. M. Abumalhan Mas (Madrid: Consejo Superior de Investigaciones Scientíificas, Instituto de Filologia, 1985–6).

    Maqālat al-ḥadīqa fī maʿnā al-majāz wa-al-ḥaqīqa, ed. P. Fenton (Jerusalem: Mekize Nirdamim, 1989).

Moses ibn Tibbon. *Perush ʿal Shir ha-shirim* (Lyck: Mekitse nirdamim, 1874).

Moses Maimonides. *Acht Kapitel: Eine Abhandlung zur jüdischen Ethik und Gotteserkenntnis*, ed. M. Wolff and F. Niewöhner, 2nd edn (Leiden: Brill, 1903; repr. Frankfurt: Institute for the History of Arabic-Islamic Science, 2003).

    The Book of Knowledge, tr. M. Hyamson (Jerusalem: Feldheim, 1974).

    The Code of Maimonides (New Haven, CT: Yale University Press, 1949–72).

    The Commandments (Sefer ha-Mitzvot), tr. C. B. Chavel (London: Soncino, 1967).

    The Commentary to Mishnah Aboth; tr. A. David (New York: Bloch, 1968).

    Crisis and Leadership: Epistles of Maimonides, ed. A. Halkin and D. Hartman (Philadelphia, PA: Jewish Publication Society, 1985).

    Dalālat al-ḥāʾirīn, ed. S. Munk (Paris: Franck, 1856; repr. Osnabrück: Zeller, 1964).

    The Eight Chapters of Maimonides on Ethics: A Psychological and Ethical Treatise, tr. J. Gorfinkle (New York: Columbia University Press, 1912; repr. New York: AMS, 1966).

    The Ethical Writings of Maimonides, ed. R. Weis and C. Butterworth (New York: New York University Press, 1975).

The Guide of the Perplexed, tr. S. Pines (Chicago: University of Chicago Press, 1963; repr. 1974).

Le livre des préceptes [*Kitāb al-Faraʿid*], ed. M. Bloch (Paris: E. Bouillon et E. Vieweg, 1888).

A Maimonides Reader, ed. I. Twersky (West Orange, NJ: Behrman House, 1972).

Mishnah im Perush, ed. and [Hebrew] tr. J. Kafih (Jerusalem: Mossad ha-Rav Kook, 1963).

Mishneh Torah, ed. S. Frankel (Jerusalem: Hotzaat Shabse Frankel, 2000).

Moreh ha-Nevukhim, ed. Y. Even-Shemuel (Jerusalem: Mosad ha-Rav Kook, 1987).

Sefer ha-Maor, hu Perush ha-Mishnah, ed. M. D. Rabinowitz (Tel Aviv: Rishonim, 1948).

Treatise on Logic, ed. and tr. I. Efros (New York: American Academy for Jewish Research, 1938; repr. 1978).

Moses Nahmanides. *Commentary on the Torah*, tr. C. B. Chavel (New York: Shilo, 1976).

Kitvei Ha-Ramban, ed. C. B. Chavel (Jerusalem: Mosad Ha-Rav Kook, 1963).

Perush ha-Torah, ed. C. B. Chavel (Jerusalem: Mosad ha-Rav Kook, 1959–63).

Writings and Discourses, tr. C. B. Chavel (New York: Shilo, 1978).

Moses of Narbonne. *The Epistle on the Possibility of Conjunction with the Active Intellect by Ibn Rushd with the Commentary of Moses Narboni*, ed. and tr. K. Bland (New York: Jewish Theological Seminary of America, 1981).

"L'épître du libre-arbitre de Moise de Narbonne," ed. M.-R. Hayoun, *Revue des Études Juives* 141 (1982) 139–67.

Moshe Narboni, ed. and tr. M.-R. Hayoun (Tübingen: Mohr, 1986).

Mullā Ṣadrā (Ṣadr al-Dīn Shīrāzī). *Al-ḥikma al-mutaʿāliya fī al-Asfār al-aqliyya al-arbaʿa* [*Transcendent Wisdom in Four Intellectual Journeys*], ed. R. Lutfī *et al.* (al-Najaf: Dār al-maʿārif al-islamiyya, 1958).

Kitāb al-mashāʿir [*The Book of Stations*], in P. Morewedge (tr.) *The Metaphysics of Mulla Sadra* (New York: Society for the Study of Islamic Philosophy and Science, 1992).

al-Nasafī, Abū al-Muʿīn. *Baḥr al-kalām*, ed. M. S. Farfūr (Damascus: Maktabat Dār al-Farfūr, 1997).

Tabṣirat al-adilla fī uṣūl al-dīn, ed. K. Salāma (Damascus: Institut français de Damas, 1990).

Nemesius of Emesa. *De natura hominis*, ed. M. Morani (Leipzig: Teubner, 1987).

De natura hominis: traduction de Burgundio de Pise, ed. G. Verbeke and J. R. Moncho (Leiden: Brill, 1975).

Premnon physicon, sive Peri physeōs anthrōpou liber, tr. [Latin] Alphanus, ed. K. Burkhard (Leipzig: Teubner, 1917).

Nicholas of Amiens. *Ars fidei catholicae: ein Beispielwerk axiomatischer Methode*, ed. M. Dreyer (Münster: Aschendorff, 1993).

Nicholas of Autrecourt. *Exigit ordo*, ed. J. R. O'Donnell, *Mediaeval Studies* 1 (1939) 179–280.

Nicholas of Autrecourt, his Correspondence with Master Giles and Bernard of Arezzo: A Critical Edition and English Translation, ed. L. M. de Rijk (Leiden: Brill, 1994).

The Universal Treatise [*Exigit ordo*], tr. L. A. Kennedy *et al.* (Milwaukee, WI: Marquette University Press, 1971).

Nicholas Bonet. *Formalitates* (Padua, 1475).

Quattuor volumina: Metaphysica, Naturalis philosophia, Praedicamenta, Theologia naturalis (Venice, 1505).

Nicholas Byard. *Dictionarius pauperum* (Paris, 1498).

Nicholas of Cusa. *De auctoritate praesidendi in concilio generali*, tr. H. L. Bond *et al.*, *Church History* 59 (1990) 19–34.

De concordantia catholica (The Catholic Concordance), tr. P. Sigmund (Cambridge: Cambridge University Press, 1991).

Dialectical Mysticism, tr. J. Hopkins (Minneapolis, MN: Banning, 1988).

Metaphysical Speculations, tr. J. Hopkins (Minneapolis, MN: Banning, 1997–2000).

A Miscellany on Nicholas of Cusa, tr. J. Hopkins (Minneapolis, MN: Banning, 1994).

On Learned Ignorance, tr. J. Hopkins (Minneapolis, MN: Banning, 1985).

On Wisdom and Knowledge, tr. J. Hopkins (Minneapolis, MN: Banning, 1996).

Opera omnia, ed. E. Hoffmann *et al.* (Leipzig: Meiner, 1932–).

Nicholas of Damascus. *De plantis: Five Translations*, ed. H. J. Drossaart Lulofs and E. L. Poortman (Amsterdam: North-Holland, 1989).

Nicholas Drukken of Dacia. *Opera*, ed. N. J. Green-Pedersen and S. Ebbesen (Copenhagen: Reitzel, 1997).

Nicholas Kabasilas. "Der Briefwechsel des Mystikers Nikolaos Kabasilas," ed. P. Enepekides, *Byzantinische Zeitschrift* 46 (1953) 18–46.

Cabasilas, teologo e mistico bizantino: Nicola Cabasilas Chamaetos, e la sua sintesi teologica, tr. Y. Spiteris (Rome: Lipa, 1996).

A Commentary on the Divine Liturgy, tr. J. M. Hussey and P. McNulty (London: SPCK, 1960; repr. Crestwood, NY: St. Vladimir's Press, 2002).

Explication de la divine liturgie, ed. P. Périchon, tr. S. Salaville, 2nd edn (Paris: Cerf, 1967).

Kata Pyrrhonos: Platonikos philo-skeptikismos kai aristotelikos anti-skeptikismos ste byzantine dianoese tou 14^{ou} aiona, ed. J. A. Demetracopoulos (Athens: Parousia, 1999).

The Life in Christ, tr. C. J. de Catanzaro (Crestwood, NY: St. Vladimir's Press, 1974).

Quaestio de rationis valore, ed. J. A. Demetracopoulos, *Byzantina* 19 (1998) 53–93.

La vie en Christ, ed. and tr. M.-H. Congourdeau (Paris: Cerf, 1989–90).

Nicholas of Lisieux. *Liber de Antichristo*, in E. Martène and U. Durand (eds.) *Veterum scriptorum amplissima collectio* (Paris, 1733; repr. New York: Franklin, 1968) IX: 1273–1446.

Nicholas of Lyra. *Apocalypse Commentary*, tr. P. Krey (Kalamazoo, MI: Medieval Institute Publications, 1997).

Biblia sacra cum glossis, interlineari et ordinaria, Nicolai Lyrani Postilla et moralitatibus (Lyon, 1545).

De visione divinae essentie, ed. M. Woodward, *Franciscan Studies* 63 (2005) 325–407.

The Postilla of Nicholas of Lyra on the Song of Songs, tr. J. G. Kiecker (Milwaukee, WI: Marquette University Press, 1998).

Nicholas of Normandy. "A Grammatical Sophisma by Nicholas of Normandy: *Albus musicus est*," ed. S. Ebbesen, *Cahiers de l'Institut du Moyen Age Grec et Latin* 56 (1988) 103–16.

Nicholas of Ockham. *Quaestiones disputatae de dilectione Dei*, ed. C. Saco Alarçón (Grottaferrata: Editiones Collegii S. Bonaventurae, 1981).

Quaestiones disputatae de traductione humanae naturae a primo parente, ed. C. Saco Alarçón (Grottaferrata: Editiones Collegii S. Bonaventurae, 1993).

Nicholas of Paris. *Obligationes*, in H. A. G. Braakhuis (ed.) "Obligations in Early Thirteenth Century Paris: The *Obligationes* of Nicholas of Paris(?)," *Vivarium* 36 (1998) 152–233.

Summe Metenses [extracts], in L. M. de Rijk (ed.) *Logica modernorum* (Assen: Van Gorcum, 1962–7) II.1: 449–90.

Syncategoremata, in H. A. G. Braakhuis (ed.) *De 13de eeuwse tractaten over syncategorematische termen: inleidende studie en uitgave van Nicolaas van Parijs' Sincategoreumata* (Nijmegen: Krips Repro, 1979).

Nicholas of Strasbourg. *Summa*, ed. T. Suarez-Nani *et al.* (Hamburg: Meiner, 1990–).

Nicole Oresme. *De proportionibus proportionum and Ad pauca respicientes*, ed. E. Grant (Madison: University of Wisconsin Press, 1966).

De visione stellarum (On Seeing the Stars): A Critical Edition of Oresme's Treatise on Optics and Atmospheric Refraction, ed. D. Burton (Leiden: Brill, 2007).

Expositio et quaestiones in Aristotelis De anima, ed. B. Patar (Leuven: Peeters, 1995).

Kommentar zur Physik des Aristoteles: Kommentar mit Edition der Quaestionen zu Buch 3 und 4 der aristotelischen Physik sowie von vier Quaestionen zu Buch 5, ed. S. Kirschner (Stuttgart: Steiner, 1997).

Le livre de éthiques d'Aristote, ed. A. D. Menut (New York: G. E. Stechert, 1940).

Le Livre de Politiques d'Aristote, ed. A. D. Menut (Philadelphia, PA: American Philosophical Society, 1970).

Le livre de yconomique d'Aristote; Critical Edition of the French Text from the Avranches Manuscript with the Original Latin Version, Introduction and English Translation, ed. A. D. Menut (Philadelphia, PA: American Philosophical Society, 1957).

Le livre du ciel et du monde, ed. A. D. Menut and A. J. Denomy (Madison: University of Wisconsin Press, 1968).

Nicole Oresme and the Marvels of Nature: A Study of his De causis mirabilium *with Critical Edition, Translation and Commentary*, ed. B. Hanson (Toronto: Pontifical Institute of Mediaeval Studies, 1985).

Nicole Oresme and the Medieval Geometry of Qualities and Motions: A Treatise on the Uniformity and Difformity of Intensities known as Tractatus de configurationibus qualitatum et motuum, ed. M. Clagett (Madison: University of Wisconsin Press, 1968).

Quaestiones super De generatione et corruptione, ed. S. Caroti (Munich: Bayerische Akademie der Wissenschaften, 1996).

Quaestiones super Geometriam Euclidis, ed. H. L. L. Busard (Leiden: Brill, 1961).

Questiones super De celo, ed. and tr. C. Kren (Ph.D. dissertation: University of Wisconsin, 1965).

Questiones super quatuor libros meteororum, in S. C. McCluskey (ed.) "Nicole Oresme on Light, Color, and the Rainbow: An Edition and Translation, with Introduction and Critical Notes, of Part of Book Three of His *Questiones super quatuor libros meteororum*" (Ph.D. dissertation: University of Wisconsin, 1974).

Traictie de la première invention des monnoies: textes français et latin d'après les manuscrits de la Bibliothèque impériale, ed. L Wolowski (Paris: Guillaumin, 1864; repr. Geneva: Slatkine Reprints, 1976).

Nikephoros Blemmydes. *Autographia sive curriculum vitae*, ed. J. A. Munitiz (Turnhout: Brepols, 1984).

Des Nikephoros Blemmydes βασιλικὸς ἀνδριάς und dessen Metaphrase von Georgios Galesiotes und Georgios Oinaiotes: ein weiterer Beitrag zum Verständnis der byzantinischen Schrift-Koine, ed. H. Hunger and I. Ševčenko (Vienna: Österreichischen Akademie der Wissenschaften, 1986).

Epitomē logikēs [etc.] (Leipzig, 1784).

Gegen die Vorherbestimmung der Todesstunde, ed. and tr. W. Lackner (Leiden: Brill, 1985).

Œuvres théologiques, ed. and tr. M. Stavrou (Paris: Cerf, 2007).

A Partial Account, tr. J. A. Munitiz (Leuven: Spicilegium sacrum Lovaniense, 1988).

Nikephoros Gregoras. *Byzantina historia*, ed. L. Schopen and I. Bekker (Bonn: Weber, 1829–55).

Epistulae, ed. P. L. Leone (Matino: Tipografia di Matino, 1982–3).

Fiorenzo: o, intorno alla sapienza, ed. and tr. P. L. Leone (Naples: Università di Napoli, Cattedra di filologia bizantina, 1975).

Odo Rigaldus. *Quaestio de gratia*, in B. Pergamo (ed.) "Il desiderio innato del sopranaturale," *Studi francescani* 7 (1935) 414–17; 8 (1936) 308–49.

Quaestio de libero arbitrio, ed. O. Lottin, *Revue Thomiste* 36 (1931) 886–95.

The Register of Eudes of Rouen, Archbishop of Rouen, ed. S. M. Brown and J. F. O'Sullivan (New York: Columbia University Press, 1964).

Registrum visitationum archiepiscopi rothomagensis: journal des visites pastorales, ed. T. Bonnin (Rouen: A. Le Brument, 1852).

"Un sermon inédit d'Eudes Rigaud," ed. J. G. Bougerol, *Archives d'histoire doctrinale et littéraire du moyen âge* 62 (1995) 343–58.

Sermones in Synodi Rothomagensi, ed. L. Duval-Arnould, *Archivum Franciscanum Historicum* 69 (1976) 336–400; 70 (1977) 35–71.

Teoria della scienza teologica: Quaestio de scientia theologicae di Odo Rigaldi e altri testi inediti (1230–1250), ed. L. Sileo (Rome: Pontificium Athenaeum Antonianum, 1984).

Odo of Soissons. *Quaestiones*, ed. J. B. Pitra (Paris: Typis Tusculanis, 1888).

Odo of Tournai. *On Original Sin and a Disputation with the Jew, Leo, Concerning the Advent of Christ, the Son of God: Two Theological Treatises*, tr. I. M. Resnick (Philadelphia: University of Pennsylvania Press, 1994).

Olympiodorus. *Prolegomena et in Categorias commentarium*, ed. A. Busse (*Commentaria in Aristotelem Graeca* XII.1) (Berlin: Reimer, 1902).

Origen. *Commentaire sur le Cantique des cantiques,* tr. [Latin] Rufinus, ed. L. Brésard and H. Crouzel (Paris: Cerf, 1991–2).

De principiis libri IV, ed. H. Görgemanns and H. Karpp (Darmstadt: Wissenschafliche Buchgesellschaft, 1976).

Der Römerbriefkommentar des Origenes: Kritische Ausgabe der Uebersetzung Rufins, ed. C. P. Hammond Bammel (Freiburg: Herder, 1990–).

Traité des principes, tr. [Latin] Rufinus, ed. H. Crouzel and M. Simonetti (Paris: Cerf, 1978–84).

Werke, ed. P. Koetschau *et al.* (Leipzig: Hinrichs, 1899–1955).

Pascal, Blaise. *Œuvres complètes*, ed. L. Lafuma (Paris: Éditions du Seuil, 1963).

Paul of Gelria. *Concepts: The Treatises of Thomas of Cleves and Paul of Gelria, an Edition of the Texts with a Systematic Introduction*, ed. E. P. Bos and S. Read (Louvain-la-Neuve: Éditions de l'Institut Supérieur de Philosophie, 2001).

Paul of Pergula. *Dubia super Consequentiis Strodi* (Padua, 1477).

Logica and Tractatus de sensu composito et diviso. ed. M. A. Brown (St. Bonaventure, NY: Franciscan Institute, 1961).

Sophismata asinina, ed. F. Pironet, *Documenti e studi sulla tradizione filosofica medievale* 9 (1998) 441–64.

Paul of Taranto. *Summa perfectionis*, ed. and tr. W. Newman (Leiden: Brill, 1991).

Paul of Venice. *Expositio in libros Posteriorum Aristotelis* (Venice, 1477; repr. Hildesheim: Olms, 1976).

Expositio super libros De generatione et corruptione (Venice, 1498).

Expositio super octo libros Physicorum nec non super commento Averrois (Venice, 1499).

Expositio super Universalia Porphyrii et artem veterem Aristotelis (Venice, 1494).

Lectura super libros Metaphysicorum (ms. in Pavia, Biblioteca Universitaria, fondo Aldini, ms. 324).

Logica magna (Venice, 1499).

Logica parva: First Critical Edition from the Manuscripts with Introduction and Commentary, ed. A. R. Perreiah (Leiden: Brill, 2002).

Logica parva, tr. A. R. Perreiah (Washington, DC: Catholic University of America Press, 1984).

Quaestio de universalibus [excerpts], ed. A. D. Conti in John Sharpe, *Quaestio super universalia* (Florence: Olschki, 1990) 199–207.

Scriptum super libros De anima (Venice, 1504).

Sophismata aurea (Venice, 1493).

Summa philosophiae naturalis (Venice, 1503; repr. Hildesheim: Olms, 1974).

Peter Abaelard. *Collationes*, ed. G. Orlandi, tr. J. Marenbon (Oxford: Clarendon Press, 2001).

Des intellections [Tractatus de intellectibus], ed. P. Morin (Paris: Vrin, 1994).

Dialectica, ed. L. M. de Rijk, 2nd edn (Assen: Van Gorcum, 1970).

Ethica seu Scito teipsum, ed. R. M. Ilgner in *Petri Abaelardi opera theologica* (Turnhout: Brepols, 2001).

Ethical Writings, tr. P. Spade (Indianapolis, IN: Hackett, 1995).

Ethics, ed. and tr. D. E. Luscombe (Oxford: Oxford University Press, 1971).

Historia calamitatum, ed. J. Monfrin, 4th edn (Paris: Vrin, 1974).

Introductiones parvulorum, in M. Dal Pra (ed.) *Pietro Abelardo*: *Scritti di logica*, 2nd edn (Florence: La Nuova Italia, 1969).

Letters IX–XIV: An Edition with an Introduction, ed. E. R. Smits (Groningen: Rijksuniversiteit, 1983).

Logica "Ingredientibus", ed. B. Geyer (Münster: Aschendorff, 1919–27).

Logica "Nostrorum petitioni sociorum", ed. B. Geyer (Münster: Aschendorff, 1933).

Sententiae secundum Magistrum Petrum, in L. Minio-Paluello (ed.) *Twelfth-Century Logic*: *Texts and Studies* (Rome: Edizioni di Storia et Letteratura, 1958) vol. II.

Sic et non, ed. B. Boyer and R. McKeon (Chicago: University of Chicago Press, 1977).

Opera theologica, ed. E. Buytaert and C. Mews (Turnhout: Brepols, 1969–87).

Peter Abaelard and Héloïse. "The Letter of Heloise on Religious Life and Abelard's First Reply," ed. J. T. Muckle., *Mediaeval Studies* 17 (1955) 241–81.

"The Personal Letters between Abelard and Heloise," ed. J. T. Muckle, *Mediaeval Studies* 15 (1953) 68–94.

Peter of Abano. *Conciliator differentiarum philosophorum et praecipue medicorum* (Venice, 1565; repr. Padua: Antenore, 1985).

De venenis atque eorundem commodis remediis (Marpurgi, 1537).

Il "Lucidator dubitabilium astronomiae" di Pietro d'Abano: opere scientifiche inedite, ed. G. Federici Vescovini (Padua: Programma e 1+1, 1988).

Problemata Aristotelis cum expositione Petri Aponi (Venice, 1501).

Peter of Ailly. *Concepts and Insolubles*, tr. P. V. Spade (Dordrecht: Reidel, 1980).

Conceptus, in L. Kaczmarek (ed.) *Modi significandi und ihre Destruktionen: zwei Texte zur scholastischen Sprachtheorie im 14. Jahrhundert* (Münster: Münsteraner Arbeitskreis f. Semiotik, 1980).

Conceptus et insolubilia (Paris: G. Marchant, 1499).

Consistorio per eundem contra M. Joannem de Montesano, in C. D. d'Argentré (ed.) *Collectio judiciorum de novis erroribus* (Paris: apud A. Cailleau, 1728–36; repr. Brussels: Culture et Civilisation, 1963) I: 69–74.

Quaestiones super libros Sententiarum cum quibusdam in fine adjunctis (Strasbourg, 1490; repr. Frankfurt: Minerva, 1968).

Tractatus de anima, in O. Pluta (ed.) *Die philosophische Psychologie des Peter von Ailly* (Amsterdam: Grüner, 1987).

Tractatus et sermones (Strasbourg, 1490; repr. Frankfurt: Minerva, 1971).

Tractatus super De consolatione philosophiae Boethii, ed. M. Chappuis (Amsterdam: Grüner, 1993).

Ymago mundi de Pierre d'Ailly, cardinal de Cambrai et chancelier de l'université de Paris (1350–1420): *Texte latin et traduction française des quatre traités cosmographiques de d'Ailly et des notes marginales de Christophe Colomb*, ed. and tr. E. Buron (Paris: Maisonneuve Frères, 1930).

Peter Alfonsi. *Diálogo contra los judíos*, tr. J. Tolan *et al.* (Huesca: Instituto de Estudios Altoaragoneses, 1996).

The Disciplina clericalis, tr. E. Hermes and P. Quarrie (Berkeley: University of California Press, 1977).

On the Elements, ed. and tr. R. C. Dales (Berkeley: University of California Press, 1976).

Peter of Aquila. *Commentaria in quatuor libros Sententiarum*, ed. C. Paolini (Levanto: Conv. SSmae Annuntiationis, 1907–9).

Peter Auriol. *Commentariorum in primum librum Sententiarum, pars prima et secunda* (Rome, 1596).
  Commentariorum in secundum, tertium et quartum Sententiarum et Quodlibeti (Rome, 1605).
  Compendium sensus litteralis totius divinae Scripturae, ed. P. Seeboeck (Quaracchi: Editiones Collegii S. Bonaventurae, 1896).
  De paupertate et usu paupere, in B. de Ceva (ed.) *Firmamenta trium ordinum beatissimi patris nostri Francisci* (Paris, 1512) IV: 116–30.
  Scriptum super primum sententiarum, ed. E. M. Buytaert (St. Bonaventure, NY: Franciscan Institute, 1952–6).
Peter of Auvergne. *The Commentary of Peter of Auvergne on Aristotle's Politics*, ed. G. M. Grech (Rome: Desclée de Brouwer, 1967).
  Commentary on Aristotle's On Length and Shortness of Life, ed. M. Dunne, *Archives d'histoire doctrinale et littéraire du moyen âge* 69 (2002) 153–200.
  Quaestiones in Metaphysicam, ed. A. Monahan, in J. R. O'Donnell (ed.) *Nine Mediaeval Thinkers: A Collection of Hitherto Unedited Texts* (Toronto: Pontifical Institute of Mediaeval Studies, 1955) 145–81.
  Quaestiones super De memoria et reminiscentia, ed. D. Bloch, *Cahiers de l'Institut du Moyen Age Grec et Latin* 78 (2007).
  Quaestiones super parva naturalia, in K. White (ed.) "Two Studies Related to St. Thomas Aquinas' Commentary on Aristotle's *De sensu et sensato*, together with an Edition of Peter of Auvergne's *Quaestiones super parva naturalia*" (Ph.D. dissertation: University of Ottawa, 1986).
  Quaestiones super Praedicamentis, ed. R. Andrews, *Cahiers de l'Institut du Moyen Age Grec et Latin* 55 (1987) 3–84.
  Le questioni su Porfirio, ed. A. Tiné, *Archives d'histoire doctrinale et littéraire du moyen âge* 64 (1997) 235–333.
  Questions on Aristotle's De caelo, ed. G. Galle (Leuven: Leuven University Press, 2003).
  Questions on Books I and II of Aristotle's Nicomachean Ethics, ed. A. Celano, *Mediaeval Studies* 48 (1986) 1–110.
  Sententia super librum De vegetabilibus et plantis, ed. E. Poortman (Leiden: Brill, 2003).
Peter the Chanter. *Summa de sacramentis et animae consiliis*, ed. J. A. Dugauquier (Leuven: Éditions Nauwelaerts, 1954–7).
  Verbum adbreviatum: textus conflatus, ed. M. Boutry (Turnhout: Brepols, 2004).
Peter Comestor. *Scolastica historia: Liber Genesis*, ed. A. Sylwan (Turnhout: Brepols, 2005).
  Sententiae de sacramentis, ed. R. M. Martin, in *Maitre Simon et son groupe De sacramentis* (Leuven: Spicilegium sacrum Lovaniense, 1937).
Peter Damian. *Die Briefe des Petrus Damiani*, ed. K. Reindel (Munich: Monumenta Germaniae Historica, 1983–93).
  De divina omnipotentia, ed. A. Cantin (Paris: Cerf, 1972).
  Letters, tr. O. Blum (Washington, DC: Catholic University of America Press, 1989–2005).
  Selected Writings on the Spiritual Life, tr. P. McNulty (London: Faber and Faber, 1959).
  Sermones, ed. G. Lucchesi (Turnhout: Brepols, 1983).
Peter of Falco. *Quaestiones disputatae de quolibet*, ed. A.-J. Gondras, *Archives d'histoire doctrinale et littéraire du moyen âge* 33 (1966) 105–236.
  Quaestiones disputatae ordinariae, ed. A.-J. Gondras (Leuven: Éditions Nauwelaerts, 1968).
Peter Helias. *Summa super Priscianum*, ed. L. A. Reilly (Toronto: Pontifical Institute of Mediaeval Studies, 1993).
Peter of Ireland. *Expositio et quaestiones in Aristotelis librum De longitudine et brevitate vitae*, ed. M. Dunne (Louvain-la-Neuve: Peeters, 1993).
  Expositio et quaestiones in Peryermenias Aristotelis, ed. M. Dunne (Louvain-la-Neuve: Peeters, 1996).

Peter of John Olivi. *Epistola ad fratrem R.*, ed. S. Piron *et al. Archivum Franciscanum Historicum* 91 (1998) 33–64.

    Lectura super Proverbia et Lectura super Ecclesiasten, ed. J. Schlageter (Grottaferrata: Editiones Collegii S. Bonaventurae, 2003).

    On Genesis, ed. D. Flood (St. Bonaventure, NY: Franciscan Institute, 2007).

    On the Acts of the Apostles, ed. D. Flood (St. Bonaventure, NY: Franciscan Institute, 2001).

    Quaestio de usu paupere and Tractatus de usu paupere, ed. D. Burr (Florence: Olschki, 1992).

    Quaestiones de incarnatione et redemptione. Quaestiones de virtutibus [*Summa* III], ed. A Emmen and E. Stadter (Grottaferrata: Editiones Collegii S. Bonaventurae, 1981).

    Quaestiones in secundum librum Sententiarum [*Summa II*], ed. B. Jansen (Quaracchi: Editiones Collegii S. Bonaventurae, 1922–26).

    Quaestiones logicales, ed. S. Brown, *Traditio* 42 (1986) 335–88.

    Quodlibeta quinque, ed. S. Defraia (Grottaferrata: Editiones Collegii S. Bonaventurae, 2002).

    Summa quaestionum super Sententias (ms. in Biblioteca Apostolica Vaticana, ms. Borgh. 322 and Borgh. 328).

    Tractatus de verbo, ed. R. Pasnau, *Franciscan Studies* 53 (1993) 121–53.

Peter Lombard. *Collectanea in omnes d. Pauli Epistolas*, in J.-P. Migne (ed.) *Patrologiae cursus completus: series latina* (Paris, 1844–91) vols. CXCI–CXCII.

    The Sentences, tr. G. Silano (Toronto: Pontifical Institute of Mediaeval Studies, 2007–).

    Sententiae in quatuor libros distinctae, ed. I. C. Brady, 3rd edn (Grottaferrata: Editiones Collegii S. Bonaventurae, 1971–81).

Peter of Mantua. *Logica* (Padua, 1477).

Peter of Navarre. *In primum Sententiarum scriptum*, ed. P. S. Azcona (Madrid: Consejo Superior de Investigaciones Científicas, Instituto Francisco Suarez, 1974).

Peter of Palude. *Commentarium in IV libros Sententiarum* (Venice, 1495).

    Concordantiae ad Summam S. Thomae (Salamanca, 1552).

    Quartus sententiarum liber, ed. V. Haerlem (Paris, 1514).

    Sermones thesauri novi dominicales (Strasbourg: Martin Flach, 1491).

    Tractatus de potestate papae, ed. P. T. Stella (Zurich: Pas Verlag, 1966).

Peter of Poitiers. *Sententiae I–II*, ed. P. S. Moore and M. Dulong (Notre Dame, IN: University of Notre Dame Press, 1943–50).

    [*Summa de confessione*] *Compilatio praesens*, ed. J. Longère (Turnhout: Brepols, 1980).

Peter of Spain. *Exposição sobre os livros do Beato Dionisio Areopagita*, ed. M. A. Alonso (Lisbon: Instituto de Alta Cultura, 1957).

    Language in Dispute: An English Translation of Peter of Spain's Tractatus, *Called Afterwards* Summulae logicales, tr. F. P. Dinneen (Amsterdam: Benjamins, 1990).

    Medical Classroom Practice: Petrus Hispanus' Questions on Isagoge, Tegni, Regimen Acutorum and Prognostica (c. 1245–50), ed. F. Salmón (Cambridge: Cambridge Wellcome Unit for the History of Medicine, 1998).

    Obras filosóficas, ed. M. A. Alonso (Madrid: Bolaños y Aguilar, 1941–52).

    Obras médicas, ed. M. Pereira (Coimbra: Por ordem da Universidade de Coimbra, 1973).

    Questiones super tractatus logice magistri Petri Hispani, ed. G. Federici-Vescovini *et al.* (Paris: Vrin, 2001).

    Syncategoreumata, ed. L. M. de Rijk, tr. J. Spruyt (Leiden: Brill, 1992).

    Tractatus Called Afterwards Summule Logicales, ed. L. M. de Rijk (Assen: Van Gorcum, 1972).

Peter Sutton. "Petrus Sutton (?), O.F.M.: Quaestiones disputatae," ed. G. J. Etzkorn, *Franciscan Studies* 24 (1964) 101–43.

    "Petrus Sutton(?), O.F.M.: Quodlibeta," ed. G. J. Etzkorn, *Franciscan Studies* 23 (1963) 68–139.

"Die Quaestio des Petrus Sutton OFM, über die Univokation des Seins," ed. M. Schmaus, *Collectanea Franciscana* 3 (1933) 5–25.

Peter of Tarentaise. *In IV librum sententiarum commentaria* (Toulouse, 1649–52; repr. Ridgewood, NJ: Gregg Press, 1964).

Postilla super epistolas Pauli (Cologne: J. Koelhoff, 1478) (edited under the name "Nicolas de Gorran").

"Le quodlibet de Pierre de Tarantasia," ed. P. Glorieux, *Recherches de théologie ancienne et médiévale* 9 (1937) 237–80.

Peter Thomae. *De distinctione predicamentorum*, ed. E. P. Bos, in M. Kardaun and J. Spruyt (eds.) *The Winged Chariot: Collected Essays on Plato and Platonism in Honour of L.M. de Rijk* (Leiden: Brill, 2000) 277–312.

Quodlibet, ed. M. R. Hooper and E. M. Buytaert (St. Bonaventure, NY: Franciscan Institute, 1957).

The Tract De unitate minori *of Petrus Thomae*, ed. E. P. Bos (Leuven: Peeters, 2002).

Peter the Venerable. *Adversus Iudeorum inveteratam duritiem*, ed. Y. Friedman (Turnhout: Brepols, 1985).

Contra Petrobrusianos hereticos, ed. J. Fearns (Turnhout: Brepols, 1968).

De miraculis libri duo, ed. D. Bouthillier (Turnhout: Brepols, 1988).

The Letters of Peter the Venerable, ed. G. Constable (Cambridge, MA: Harvard University Press, 1967).

Peter of Vienna (?). *Die Zwettler Summe*, ed. N. M. Häring (Münster: Aschendorff, 1977).

Philip the Chancellor. *Summa de bono*, ed. N. Wicki (Berne: Francke, 1985).

Philo of Alexandria. *About the Contemplative Life*, ed. F. C. Conybeare (Oxford: Clarendon Press, 1895).

L'ancienne version latine des Questions sur la genèse de Philon d'Alexandrie, ed. F. Petit (Berlin: Akademie Verlag, 1973).

Philoponus. *In Aristotelis Categorias commentarium*, ed. A. Busse (*Commentaria in Aristotelem Graeca* XIII.1) (Berlin: Reimer, 1898).

Philoponus against Aristotle on the Eternity of the World, tr. C. Wildberg (Ithaca, NY: Cornell University Press, 1987).

Photios. *Bibliotheca*, ed. J. Schamp and B. Kindt (Turnhout: Brepols, 2003).

Epistulae et amphilochia, ed. V. Laourdas L. G. Westerink (Leipzig: Teubner, 1983–8).

Homiliai, ed. B. Laourdas (Thessaloniki, 1959).

Homilies, tr. C. A. Mango (Cambridge, MA: Harvard University Press, 1958).

Placentinus. *In summam Institutionum* (Lyon, 1536).

Summa codicis (Mainz, 1536; repr. Turin: Bottega d'Erasmo, 1962).

Die summa De actionum varietatibus, ed. L. Wahrmund (Innsbruck: Wagner, 1925; repr. Aalen: Scientia Verlag, 1962).

Plato. *Meno*, tr. Henry Aristippus, ed. V. Kordeuter and C. Labowsky (*Plato Latinus* I) (London: Warburg Institute, 1940).

Parmenides usque ad finem primae hypothesis, nec non Procli Commentarium in Parmenidem, tr. W. Moerbeke, ed. R. Klibansky and C. Labowsky (*Plato Latinus* III) (London: Warburg Institute 1953).

Phaedo, tr. Henry Aristippus, ed. L. Minio-Paluello (*Plato Latinus* II) (London: Warburg Institute, 1950).

Opera, ed. J. Burnet (Oxford: Clarendon Press, 1905–13).

Timaeus a Calcidio translatus commentarioque instructus, ed. J. H. Waszink (*Plato Latinus* IV) 2nd edn (London: Warburg Institute, 1975).

Pliny the Elder. *Natural History*, tr. H. Rackham (Cambridge, MA: Harvard University Press, 1938–63).

Plotinus. *Enneads*, ed. A. H. Armstrong (Cambridge, MA: Harvard University Press, 1984).

Porphyry. *Introduction [Isagoge]*, tr. J. Barnes (Oxford: Clarendon Press, 2003).

    Isagoge, ed. A. Busse (*Commentaria in Aristotelem Graeca* IV.1) (Berlin: G. Reimer, 1887).

    Isagoge, translatio Boethii, ed. L. Minio-Paluello (*Aristoteles Latinus* I.6–7) (Bruges: Desclée de Brouwer, 1966).

    On the Life of Plotinus, in P. Henry and H.-R. Schwyzer (eds.) *Plotini Opera* (Oxford: Oxford University Press, 1964) vol. I.

Priscian. *Institutiones grammaticae*, ed. M. Hertz (Leipzig: Teubner, 1855–59; repr. Hildesheim: Olms, 1961).

    Opera (Venice: G. Arrivabenus, 1488).

Prochoros Kydones. *Pragmateia eis to peri ousias kai energeias zetema*, ed. J. Filovski and M. D. Petrusevski, *Ziva Antika* 23 (1973) 317–67; 26 (1976) 161–92.

Proclus. *Commentaire sur le Parménide de Platon, traduction de Guillaume de Moerbeke*, ed. C. Steel (Leuven: Presses universitaires, 1982–5).

    Elementatio theologica, translata a Guillelmo de Morbecca, ed. H. Boese (Leuven: University Press, 1987).

    The Elements of Theology, ed. E. R. Dodds, 2nd edn (Oxford: Oxford University Press, 1963).

    In Platonis Timaeum commentaria, ed. E. Diehl (Leipzig: Teubner, 1903–6).

    Liber de causis, tr. Gerard of Cremona, ed. A. Pattin, *Tijdschrift voor Filosofie* 28 (1966) 90–203.

    Tria opuscula (De providentia, libertate, malo), latine Guilelmo de Moerbeka vertente et graece ex Isaacii Sebastocratoris aliorumque scriptis collecta, ed. H. Boese (Berlin: De Gruyter, 1960).

Profiat Duran. *Maʿaseh Efod* (Vienna, 1865).

Pseudo-Albert the Great. *Quaestiones Alberti de modis significandi*, ed. and tr. L. G. Kelly (Amsterdam: Benjamins, 1977).

Pseudo-Andronicus of Rhodes. *Peri pathōn*, ed. A. Gilbert-Thirry (Leiden: Brill, 1977).

Pseudo-Apollonius. *On the Secrets of Nature*, tr. [Latin] Hugo of Santalla, ed. F. Hudry, in *Chrysopoeia* 6 (1997–9) 1–154.

Pseudo-Aristotle. "The Hebrew Version of the *Secretum Secretorum*," ed. M. Gaster, *Journal of the Royal Asiatic Society* (1907) 879–912; (1908) 111–62, 1065–84.

    Iggeret ha-musar le-Aristotelos, ed. J. Marcaria (Riva di Trento: A. Braun, 1559).

    Liber de causis, ed. I. Schreiber (Budapest: Athenaeum, 1916).

    "*Nutaf min al-ḥiyal:* A Partial Arabic Version of Pseudo-Aristotle's *Problemata Mechanica*," ed. M. Abattouy, *Early Science and Medicine* 6 (2001) 96–122.

    On the Causes of the Properties of the Four Elements, tr. Gerard of Cremona, ed. S. L. Vodraska (Ph.D dissertation: University of London, 1969).

    The Problemata Physica Attributed to Aristotle: The Arabic Version of Hunain ibn Ishaq and the Hebrew Version of Moses Ibn Tibbon, ed. L. S. Filius (Leiden: Brill, 1999).

    Secret of Secrets, tr. [Latin] John of Seville, in H. Suchier (ed.) *Denkmäler Provenzalischer Literatur und Sprache* (Halle: M. Niemeyer, 1883) 473–80.

    Sefer ha-tappuah le-Aristotelos, ed. J. Marcaria (Riva di Trento: A. Braun, 1562).

Pseudo-Campsall. *Logica Campsale Anglicj, valde utilis et realis contra Ocham*, in E. A. Synan (ed.) *The Works of Richard Campsall* (Toronto: Pontifical Institute of Mediaeval Studies, 1982) II: 51–420.

Pseudo-Cicero. "La traduzione greca di Rhetorica ad Herennium III,16–24," ed. S. Bernardinello, *Aevum* 47 (1973) 387–416.

Pseudo-Dionysius. *The Complete Works*, tr. C. Luibheid (New York: Paulist Press, 1987).

Corpus Dionysiacum, ed. B. R. Suchla, G. Heil, and A. M. Ritter (Berlin: De Gruyter, 1990–1).

Dionysiaca: recueil donnant l'ensemble des traductions latines des ouvrages attribués au Denys de l'aréopage, ed. P. Chevallier (Paris: Desclée de Brouwer, 1937–50).

Pseudo-Galen. *Dialog über die Seele: aus dem Arabischen übersetzt von Jehuda ben Salomo Alcharisi*, ed. A. Jellinek (Leipzig, 1852).

Pseudo-Grosseteste. *Tractatus de grammatica: eine fälschlich Robert Grosseteste zugeschriebene spekulative Grammatik*, ed. K. Reichl (Munich: Schöningh, 1976).

Pseudo-Kilwardby. "The Commentary on 'Priscianus Maior' ascribed to Robert Kilwardby," ed. K. M. Fredborg *et al.*, *Cahiers de l'Institut du Moyen Age Grec et Latin* 15 (1975) 1–143.

Pseudo-Peter of Ailly. *Destructiones modorum significandi*, ed. L. Kaczmarek (Amsterdam: Grüner, 1994).

Pseudo-Polemon. *Physiognomica,* [Arabic] ed. and tr. R. Hoyland, in S. Swain *et al.* (eds.) *Seeing the Face, Seeing the Soul: Polemon's Physiognomy from Classical Antiquity to Medieval Islam* (Oxford: Oxford University Press, 2007).

Ptolemy. *Almagest*, tr. G. J. Toomer (New York: Springer, 1984; repr. Princeton, NJ: Princeton University Press, 1998).

Opera quae exstant omnia, ed. J. L. Heiberg (Leipzig: Teubner, 1898–1907).

Ptolemy of Lucca. *Die Annalen des Tholomeus von Lucca*, ed. B. Schmeidler (Berlin: Weidmannsche Buchhandlung, 1955).

De regimine principum ad regem Cypri, in Thomas Aquinas, *Opuscula philosophica*, ed. R. M. Spiazzi (Rome: Marietti, 1954) 253–358.

Determinatio compendiosa de iurisdictione imperii, ed. M. Krammer (Hannover: Impensis Biblipolii Hahniani, 1909).

Exaemeron seu De opera sex dierum tractatus, ed. T. Masetti (Siena: Ex typographia S. Bernardini, 1880).

Historia ecclesiastica nova, in L. Muratori (ed.) *Rerum italicarum scriptores* (Milan, 1727) XI: 751–1242.

On the Government of Rulers, tr. J. Blythe (Philadelphia: University of Pennsylvania Press, 1997).

al-Qushayrī. *Epistle on Sufism*, tr. A. D. Knysh (Reading: Garnet, 2007).

Al-Risāla al-Qushayrīya, ed. A. Mahmūd and M. Ibn al-Sharīf (Cairo: Dār al-Kutub al-Ḥadīthah, 1966).

Al-Taḥbīr fī al-tadhkīr, ed. I. Busyūnī (Cairo: Dār al-kātib al-ʿarabī, 1968).

Qusṭā ibn Lūqā. *De differentia animae et spiritus liber*, ed. C. Barach (Innsbruck, 1878; repr. Frankfurt: Minerva, 1968).

De differentia animae et spiritus liber, in J. Wilcox (ed.) "The Transmission and Influence of Qusṭā ibn Lūqā's *On the Difference between Spirit and the Soul*" (Ph.D. dissertation: City University of New York, 1985).

On Physical Ligatures, tr. [Latin] Constantine the African, ed. J. Wilcox and J. M. Riddle, *Medieval Encounters* 1 (1995) 1–50.

Radulphus Ardens. *Speculum universale*, ed. J. Gründel (Munich: Hueber, 1961).

Radulphus Brito. *Quaestiones super arte veteri* (Venice, 1499).

Quaestiones super libros Topicarum Boethii, ed. N. J. Green-Pedersen and J. Pinborg, *Cahiers de l'Institut du Moyen Age Grec et Latin* 26 (1978).

Quaestiones super librum De anima, ed. W. Fauser (Münster: Aschendorff, 1974).

Quaestiones super Priscianum minorem, ed. H. W. Enders and J. Pinborg (Stuttgart-Bad Cannstatt: Frommann-Holzboog, 1980).

Radulphus de Longo Campo. *Distinctiones: vocabularium semanticum saeculi XII (circa 1190) dictionibus illustratum*, ed. J. Sulowski (Warsaw: Ossolineum, 1976).

  In Anticlaudianum Alani commentum, ed. J. Sulowski (Warsaw: Zaklad Narodowy im Ossolinskich, 1972).

Ralph of Beauvais. *Glose super Donatum*, ed. C. H. Kneepkens (Nijmegen: Ingenium, 1982).

  Liber Tytan, ed. C. H. Kneepkens (Nijmegen: Ingenium, 1991).

Ralph Strode. *Consequentiae et Obligationes, cum commentis* (Venice, 1493–4).

  Tractatus de consequentiis, ed. W. Seaton (Ph.D. dissertation: University of California at Berkeley, 1973).

Rambert de' Primadizzi of Bologna. *Apologeticum veritatis contra corruptorium*, ed. J.-P. Müller (Vatican: Biblioteca Apostolica Vaticana, 1944).

Ratramnus of Corbie. *De anima*, ed. A. Wilmart, *Revue Bénédictine* 43 (1931) 207–23.

  De anima ad Odonem, ed. C. Lambot (Namur: Éditions Godenne, 1952).

  De corpore et sanguine Domini, ed. J. N. Bakhuizen van den Brink, 2nd edn (Amsterdam: North-Holland, 1974).

Raymond of Capua. *The Life of Catherine of Siena*, tr. C. Kearns (Wilmington, DE: Glazier, 1980).

  Die Legenda maior (Vita Catharinae Senensis), ed. J. Jungmayr (Berlin: Weidler, 2004).

Raymond Lull. *Compendium logicae Algazelis*, ed. C. H. Lohr (Ph.D. dissertation: Universität zu Freiburg, 1967).

  Nova edició de les obres de Ramon Llull (Palma de Mallorca: Patronat Ramon Llull, 1990–).

  Obres de Ramon Lull, ed. M. Obrador y Benassar *et al.* (Palma de Mallorca: Comissió Editora Lulliana, 1906–17; Diputació Provincial de Balears and Institut d'Estudis Catalans, 1923–50).

  Opera latina (Palma de Mallorca: Maioricensis Schola Lullistica del CSIC, 1959–67; Turnhout: Brepols, 1975–).

  Opera omnia, ed. I. Salzinger (Mainz, 1721–40; repr. Frankfurt: Minerva, 1965).

  Selected Works of Ramon Llull, tr. A. Bonner (Princeton, NJ: Princeton University Press, 1985).

Raymond of Pennafort. *Summa de iure canonico*, ed. J. Ochoa Sanz and L. Diez Garcia (Rome: Commentarium pro religiosis, 1975).

  Summa de matrimonio, ed. X. Ochoa and A. Diez (Rome: Commentarium pro religiosis, 1978).

  Summa de paenitentia, ed. X. Ochoa and A. Diez (Rome: Commentarium pro religiosis, 1976).

  Summa on marriage, tr. P. Payer (Toronto: Pontifical Institute of Mediaeval Studies, 2005).

al-Rāzī, Abū Bakr. *Kitāb al-ḥāwī fī al-ṭibb* (Haydarabad al-Dakkan: Maṭbaʿat Majlis Dairat al-Maʿārif al-ʿUthmaniyah, 1955–68).

  Liber Elhavi id est Continens artem medicinae (Brescia: Jacobus Britannicus, 1486).

  Rasāʾil falsafiyya, ed. P. Kraus (Cairo: Fouad I University Faculty of Letters, 1939; repr. Beirut: Dār al-Afaq al-Jadida, 1973).

  The Spiritual Physick of Rhazes, tr. A. Arberry (London: John Murray, 1950).

al-Rāzī, Abū Ḥātim. *Aʿlām al-nubūwwah* (Beirut: Dār al-Saqi, 2003).

  Kitāb al-Iṣlāḥ, ed. M. Muhaqqiq *et al.* (Tehran: Muʾassasah-ʾi Muṭālaʿāt-i Islāmī, 1998).

  Kitāb al-Zīna, ed. H. al-Hamadānī (Sanaa: Markaz al-Dirāsāt, 1994).

al-Rāzī, Fakhr al-Dīn. *Al-Mabāḥith al-mashriqiyya* (Beirut: Dār al-Kitāb al-ʿArabī, 1990).

  Muḥaṣṣal afkār (Cairo: al-Maṭbaʿah al Ḥusaynīyyah al-Miṣrīyyah, 1905).

  Al-Tafsīr al-kabīr (Cairo: al-Maṭbaʿah al Bahīyya al-Miṣrīyya, 1934–62).

Regula non bullata, ed. C. Paolozzi, *Archivum Franciscanum Historicum* 100 (2007) 5–148.

Remigio de' Girolami. *Contra falsos ecclesie professores*, ed. F. Tamburini (Rome: Pontificia Università Lateranense, 1981).

De subiecto theologiae, ed. E. Panella (Milan: Massimo, 1982).

Une métaphysique à l'école de Thomas d'Aquin: le De modis rerum *de Rémi de Florence*, ed. A. Gavric (Fribourg: Academic Press, 2007).

"I Quodlibeti di Remigio dei Girolami," ed. E. Panella, *Memorie Domenicane* 14 (1983) 1–149.

Remigius of Auxerre. "A Commentary by Remigius Autissiodorensis on the 'De consolatione philosophiae' of Boethius," tr. H. F. Stewart, *Journal of Theological Studies* 17 (1916) 22–42.

Commentum in Martianum Capellam, ed. C. Lutz (Leiden: Brill, 1962–5).

Expositio super Genesim, ed. B. Edwards (Turnhout: Brepols, 1999).

Richard Billingham. *De consequentiis*, ed. S. Weber (Amsterdam: Grüner, 2003).

Speculum puerorum sive Terminus est in quem, ed. A. Maierù, *Studi Medievali*, 3rd ser., 10 supp. (1970) 297–398.

Richard Brinkley. "An Anonymous Fourteenth-Century Treatise on 'Insolubles': Text and Study," ed. P. V. Spade (Ph.D. dissertation: Pontifical Institute of Mediaeval Studies, Toronto, 1969).

Obligationes, ed. G. A. Wilson and P. V. Spade (Münster: Aschendorff, 1995).

Theory of Sentential Reference, ed. and tr. M. J. Fitzgerald (Leiden: Brill, 1987).

Richard of Campsall. *The Works of Richard of Campsall*, ed. E. A. Synan (Toronto: Pontificial Institute of Mediaeval Studies, 1968–82).

Richard of Conington. *Tractatus de paupertate*, ed. A. Heysse, *Archivum Franciscanum Historicum* 23 (1930) 57–105, 340–60.

Richard of Ferrybridge. *Consequentiae* (Venice, 1493).

Richard Fishacre. *In tertium librum Sententiarum*, ed. K. Rödler *et al.* (Munich: Bayerische Akademie der Wissenschaften, 2003–).

"Richard Fishacre's *Super S. Augustini librum de haeresibus adnotationes*: an Edition and Commentary," ed. R. J. Long, *Archives d'histoire doctrinale et littéraire du moyen âge* 60 (1993) 207–79.

Richard Fitzralph. *De pauperie Salvatoris*, in R. L. Poole (ed.) *Iohannis Wycliffe De dominio divino libri tres; to Which are Added the First Four Books of the Treatise De pauperie Salvatoris* (London: Trübner, 1890).

Defensio curatorum, tr. J. Trevisa (London: Oxford University Press, 1925; repr. Millwood, NY: Kraus Reprint, 1987).

Summa Domini Armacani in questionibus Armenorum, ed. J. Le Sueur (Paris, 1512).

Richard Kilvington. *The Sophismata of Richard Kilvington*, ed. N. Kretzmann and B. Ensign Kretzmann (Oxford: Oxford University Press, 1990).

The Sophismata of Richard Kilvington, tr. N. Kretzmann and B. Ensign Kretzmann (Cambridge: Cambridge University Press, 1990).

Richard Knapwell. *Le Correctorium corruptorii "Quare"*, ed. P. Glorieux (Kain: Saulchoir, 1927).

Quaestio disputata de unitate formae, ed. F. E. Kelley (Paris: Vrin, 1982).

Richard Lavenham. *De syncategorematibus, in Libellus sophistarum ad usum Cantabrigiensis* (London, 1510).

A Litil Tretys on the Seven Deadly Sins, ed. J. P. W. M. van Zutphen (Rome: Institutum Carmelitanum, 1956).

Richard of Middleton. *De ratione cognoscendi seu utrum quidquid certitudinaliter cognoscitur a nobis cognoscatur in rationibus aeternis quaestio anecdota*, ed. Fidelis a Fanna (Turin: Marietti, 1874).

Quodlibeta quaestiones octuaginta (Brescia, 1590; repr. Frankfurt: Minerva, 1963).

Super IV libros Sententiarum Petri Lombardi quaestiones subtilissimae (Brescia, 1591; repr. Frankfurt: Minerva, 1963).

Richard Rolle. *The English Writings*, tr. R. Allen (New York: Paulist Press, 1988).

   Prose and Verse, ed. S. J. Ogilvie-Thomson (Oxford: Early English Text Society, 1988).

Richard Rufus of Cornwall. *De ideis* (ms. in Erfurt, Universitätsbibliothek, cod. Amplonianus Q. 312).

   De ideis (ms. in Archiv Prazskeho Hradu [Prague, Library of the Metropolitan Chapter], ms. 1437).

   Disssertatio in Metaphysicam Aristotelis (ms. in Salamanca, Bibl. Gen. Hist. cod. 2322).

   In Physicam Aristotelis, ed. R. Wood (Oxford: Oxford University Press, 2003).

Richard of St. Victor. *De statu interioris hominis*, ed. J. Ribaillier, *Archives d'histoire doctrinale et littéraire du moyen âge* 34 (1967) 7–128.

   De Trinitate: texte critique, ed. J. Ribaillier (Paris: Cerf, 1958).

   Les douze patriarches, ou, Beniamin minor, ed. J. Châtillon *et al.* (Paris: Cerf, 1997).

   Liber exceptionum, ed. J. Châtillon (Paris: Vrin, 1958).

   Opuscules théologiques, ed. J. Ribaillier (Paris: Vrin, 1967).

   Selected Writings on Contemplation, ed. C. Kirchberger (London: Faber and Faber, 1957).

   Sermons et opuscules spirituels inédits: l'édit d'Alexandre ou les trois processions, ed. and tr. J. Châtillon *et al.* (Paris: Desclée de Brouwer, 1951).

   Trois opuscules spirituels de Richard de Saint-Victor: textes inédits accompagnés d'études critiques et de notes, ed. J. Châtillon *et al.* (Paris: Études Augustiniennes, 1986).

   The Twelve Patriarchs; The Mystical Ark; Book Three of the Trinity, tr. G. A. Zinn (New York: Paulist Press, 1979).

Richard Swineshead. *Liber calculationum* (Padua, 1477).

Robert Alyngton. *Litteralis sententia super Praedicamenta Aristotelis* [excerpts], in A. D. Conti (ed.) "Linguaggio e realtà nel commento alle Categorie di Robert Alyngton," *Documenti e studi sulla tradizione filosofica medievale* 4 (1993) 179–306.

Robert of Basevorn. *Forma praedicandi*, in T.-M. Charland (ed.) *Artes praedicandi: contribution à l'histoire de la rhétorique au moyen âge* (Ottawa: Institut d'Études Médiévales, 1936).

Robert of Flamborough. *Liber poenitentialis*, ed. J. J. F. Firth (Toronto: Pontifical Institute of Mediaeval Studies, 1971).

Robert Fland. *Consequentiae*, ed. P. V. Spade, *Mediaeval Studies* 38 (1976) 54–84.

   Insolubilia, ed. P. V. Spade, *Mediaeval Studies* 40 (1978) 56–80.

   Obligationes, ed. P. V. Spade, *Mediaeval Studies* 42 (1980) 41–60.

Robert Grosseteste. *Commentarius in Posteriorum analyticorum libros*, ed. P. Rossi (Florence: Olschki, 1981).

   Commentarius in VIII libros physicorum Aristotelis, ed. R. C. Dales (Boulder: University of Colorado Press, 1963).

   (tr.). *The Greek Commentaries of the Nicomachean Ethics of Aristotle in the Latin Translation of Robert Grosseteste*, ed. H. Mercken (*Corpus Latinum Commentariorum in Aristotelem Graecorum* VI) (Leiden: Brill, 1973–91).

   (tr.). *The Greek Commentaries of the Nicomachean Ethics of Aristotle in the Latin Translation of Robert Grosseteste*, ed. M. Trizio (*Corpus Latinum Commentariorum in Aristotelem Graecorum* VI.2) (Leuven: Leuven University Press, forthcoming).

   Hexaëmeron, ed. R. C. Dales and S. Gieben (London: British Academy, 1982).

   Mystical Theology: The Glosses by Thomas Gallus and the Commentary of Robert Grosseteste on De mystica theologia, ed. J. McEvoy (Paris: Peeters, 2003).

   On Light, ed. C. Riedl (Milwaukee, WI: Marquette University Press, 1942).

   On the Six Days of Creation, tr. C. F. J. Martin (Oxford: British Academy, 1996).

   Opera, ed. J. McEvoy *et al.* (Turnhout: Brepols, 1995).

Die philosophischen Werke des Robert Grosseteste, ed. L. Baur (Münster: Aschendorff, 1912).

Robert Holcot. *Exploring the Boundaries of Reason: Three Questions on the Nature of God by Robert Holcot, OP*, ed. H. G. Gelber (Toronto: Pontifical Institute of Mediaeval Studies, 1983).

In quattuor libros Sententiarum quaestiones (Lyon, 1518; repr. Frankfurt: Minerva, 1967).

Moralitates Roberti Olchot verbum Dei evangelizantibus per utiles (Venice, 1514).

Seeing the Future Clearly: Questions on Future Contingents, ed. P. Streveler *et al.* (Toronto: Pontifical Institute of Mediaeval Studies, 1995).

Sex articuli, in F. Hoffmann (ed.) *Die "Conferentiae" des Robert Holcot O.P. und die akademischen Auseinandersetzungen an der Universität Oxford 1330–1332* (Münster: Aschendorff, 1993).

Super libros Sapientiae (Hagenau, 1494; repr. Frankfurt: Minerva, 1974).

Super librum Ecclesiastici (Venice, 1509).

Robert Kilwardby. *De natura relationis*, ed. L. Schmücker (Lenggries: Schmücker, 1980).

De ortu scientiarum, ed. A. G. Judy (London: British Academy, 1976).

Epistula ad Petrum de Confleto, in A. Birkenmajer (ed.) *Vermischte Untersuchungen zur Geschichte der mittelalterlichen Philosophie* (Münster: Aschendorff, 1922) 36–69.

In Donati Artem maiorem III, ed. L. Schmücker (Brixen/Bressanone: Typographia A. Weger Fund. 1550, 1984).

[pseudo-Giles of Rome]. *In Libros priorum analyticorum expositio* (Venice, 1516; repr. Frankfurt: Minerva, 1968).

Notulae super librum Porphyrii (ms. in Cambridge, Peterhouse, ms. 206) 33ra–42ra.

Notulae super librum Praedicamentorum (ms. in Cambridge, Peterhouse, ms. 206) 42rb–65va.

Notule libri Prisciani de accentibus, ed. P. O. Lewry, *Mediaeval Studies* 50 (1988) 96–185.

On Time and Imagination: De tempore, De spiritu fantastico, ed. and tr. P. O. Lewry and A. Broadie (Oxford: Oxford University Press for the British Academy, 1987).

Quaestiones in librum primum Sententiarum, ed. J. Schneider (Munich: Bayerische Akademie der Wissenschaften, 1986).

Quaestiones in librum quartum Sententiarum, ed. R. Schenk (Munich: Bayerische Akademie der Wissenschaften, 1993).

Quaestiones in librum secundum Sententiarum, ed. G. Leibold (Munich: Bayerische Akademie der Wissenschaften, 1992).

Quaestiones in librum tertium Sententiarum, Part I: Christologie, ed. E. Gössmann (Munich: Bayerische Akademie der Wissenschaften, 1982).

Quaestiones in librum tertium Sententiarum, Part II: Tugendlehre, ed. G. Leibold (Munich: Bayerische Akademie der Wissenschaften, 1985).

Responsio de 43 quaestionibus Iohannis Vercellensis, ed. H.-F. Dondaine, *Archivum Fratrum Praedicatorum* 47 (1977) 5–50.

Robert of Melun. *Œuvres*, ed. R. M. Martin (Leuven: Spicilegium sacrum Lovaniense, 1932–52).

Robert Orford. *Le Correctorium corruptorii "Sciendum"*, ed. P. Glorieux (Paris: Vrin, 1956).

De natura materiae, in Thomas Aquinas, Opuscula philosophica, ed. R. M. Spiazzi (Rome: Marietti, 1954) 131–45.

Reprobationes dictorum a fratre Egidio in primum Sententiarum, ed. A. Vella (Paris: Vrin 1968).

Robertus Anglicus. *Sophistria*, ed. A. Grondeux and I. Rosier-Catach (Paris: Vrin, 2006).

Roger Bacon. *Compendium of the Study of Theology*, ed. and tr. T. S. Mahoney (Leiden: Brill, 1988).

De multiplicatione specierum and De speculis comburentibus, ed. D. C. Lindberg (Oxford: Clarendon Press, 1983).

De signis, ed. K. M. Fredborg *et al.*, *Traditio* 34 (1978) 75–136.

The Greek Grammar of Roger Bacon and a Fragment of his Hebrew Grammar, ed. E. Nolan and S. A. Hirsch (Cambridge: Cambridge University Press, 1902).

Moralis philosophia, ed. E. Massa (Zurich: Thesaurus Mundi, 1953).

Opera hactenus inedita Rogeri Bacon, ed. R. Steele *et al.* (Oxford: Clarendon Press, 1909–40).

Opera quaedam hactenus inedita, ed. J. S. Brewer (London: Longman, 1859; repr. 1965).

Opus maius, ed. J. H. Bridges (Oxford: Clarendon Press, 1897–1900; repr. Frankfurt: Minerva, 1964).

The Opus Majus, tr. R. B. Burke (Philadelphia: University of Pennsylvania Press, 1928; repr. New York: Russell, 1962).

Perspectiva, in D. C. Lindberg (ed. and tr.) *Roger Bacon and the Origins of Perspectiva in the Middle Ages* (Oxford: Clarendon Press, 1996).

Summulae dialectices, ed. A. de Libera, *Archives d'histoire doctrinale et littéraire du moyen âge* 53 (1986) 139–289; 54 (1987) 171–278.

Three Treatments of Universals, ed. T. S. Maloney (Binghamton, NY: MARTS, 1989).

Roger Marston. *Quaestiones disputatae de emanatione aeterna, de statu naturae lapsae et de anima*, ed. Z. van de Woestyne *et al.* (Quaracchi: Editiones Collegii S. Bonaventurae, 1932).

Quodlibeta quatuor, ed. G. J. Etzkorn and I. Brady, 2nd edn (Grottaferrata: Editiones Collegii S. Bonaventurae, 1994).

Roger Nottingham. *Insolubilia*, ed. E. Synan, *Mediaeval Studies* 26 (1964) 257–70.

Introitus ad Sententias, ed. E. Synan, *Mediaeval Studies* 25 (1963) 259–79.

Roger Roseth. *Lectura super Sententias: Quaestiones 3, 4 & 5*, ed. O. Hallamaa (Helsinki: Luther-Agricola Society, 2005).

Roger Swineshead. *Insolubilia*, ed. P. V. Spade, *Archives d'histoire doctrinale et littéraire du moyen âge* 46 (1979) 177–220.

Obligationes, ed. P. V. Spade, *Archives d'histoire doctrinale et littéraire du moyen âge* 44 (1977) 243–85.

Roger Whelpdale, *Tractatus de universalibus* [excerpts], ed. A. D. Conti, in John Sharpe, *Quaestio super universalia* (Florence: Olschki, 1990) 189–97.

Roland of Bologna. *Die Sentenzen Rolands*, ed. A. Gietl (Freiburg: Herder, 1891; repr. Amsterdam: Rodopi, 1969).

Summa Magistri Rolandi, ed. F. Thaner (Innsbruck: Wagner, 1874; repr. Aalen: Scientia Verlag, 1962).

Roland of Cremona. *Summae Magistri Rolandi Cremonensis O.P. Liber tercius*, ed. A. Cortesi (Bergamo: Edizioni Monumenta Bergomensia, 1962).

Rufinus. *De bono pacis*, ed. A. Brunacci and G. Catanzaro (Assisi: Fonteviva Editrice, 1986).

Summa decretorum, ed. H. Singer (Paderborn: Schöningh, 1902; repr. Aalen: Scientia Verlag, 1963).

Rupert of Deutz. *Commentaria in Canticum Canticorum*, ed. H. Deutz and I. Deutz (Turnhout: Brepols, 2005).

De Sancta Trinitate et operibus eius, ed. R. Haacke (Turnhout: Brepols, 1971–2).

De victoria Verbi Dei, ed. R. Haacke (Weimar: Böhlau, 1970).

In evangelium sancti Iohannis, ed. R. Haacke (Turnhout: Brepols, 1969).

Saadiah Gaon. *The Book of Beliefs and Opinions*, tr. S. Rosenblatt (New Haven, CT: Yale University Press, 1948).

Commentaire sur le Sefer Yesira, ed. M. Lambert (Paris: Bouillon, 1891).

Ha-Egron: Kitāb ʿusul al-shiʾr al-ʾibrani, ed. N. Allony (Jerusalem: Academy of the Hebrew Language, 1969).

Kitāb al-Amānāt wa-al-iʿtiqādāt, ed. S. Landauer (Leiden: Brill, 1880).

Kitāb al-Amānāt wa-al-iʿtiqādāt, ed. J. Kafih (Jerusalem: Sura, 1970).

Les œuvres complètes, ed. J. Derenbourh *et al.* (Paris: E. Leroux, 1893–9).

The Book of Theodicy: Translation and Commentary on the Book of Job, tr. L. Goodman (New Haven, CT: Yale University Press, 1988).

al-Samarqandī. *Risāla fī ādāb al-baḥth*, in M. al-Manṣūrī (ed.) *Majmuʿah mushtamilah ʿala al-ātī bayānuhū* (Mahabad: Kitābfurūshī-yi Sayyidyān, 1934).

Samuel ibn Tibbon. *Commentary on Ecclesiastes: The Book of the Soul of Man*, ed. and tr. J. T. Robinson (Tübingen: Mohr Siebeck, 2007).

Maʾamar Yiqqawu ha-Mayim, ed. M. Bisliches (Pressburg: Anton Edler von Schmid, 1837).

Sedulius Scottus. *Carmina*, ed. J. Meyers (Turnhout: Brepols, 1991).

Collectaneum in apostolum, ed. H. Frede and H. Stanjek (Freiburg: Herder, 1996).

Collectaneum miscellaneum, ed. D. Simpson (Turnhout: Brepols, 1988).

De rectoribus Christianis, in S. Hellmann (ed.) *Sedulius Scottus* (Munich: Beck, 1906).

In Donati artem maiorem, ed. B. Löfstedt (Turnhout: Brepols, 1977).

In Donati artem minorem; In Priscianum; In Eutychem, ed. B. Löfstedt (Turnhout: Brepols, 1977).

Kommentar zum Evangelium nach Matthäus, ed. B. Löfstedt (Freiburg: Herder, 1989).

Seneca. *L. Annaei Senecae ad Lucilium epistulae morales*, ed. L. D. Reynolds (Oxford: Clarendon Press, 1965).

Sennert, Daniel. *Thirteen Books of Natural Philosophy* (London, 1659).

Servasanto of Faenza. *Summa de poenitentia* (Louvain, 1485).

al-Shāfiʿī, Muḥammad ibn Idrīs. *Al-Risāla fī al-uṣūl*, ed. A. M. Shākir (Cairo: Dār al-Turāth, 1979).

Al-Risāla fī uṣūl al-fiqh: Treatise on the Foundations of Islamic Jurisprudence, tr. M. Kahadduri, 2nd edn (Cambridge: Islamic Texts Society, 1987).

al-Shahrastānī, Abū al-Fatḥ. *Kitāb al-milal wa-al-niḥal*, ed. M. Badrān (Cairo: Maṭbaʿat al-Azhar, 1951).

Livre des religions et des sectes, tr. D. Gimaret and G. Monnot (Paris: Peeters, 1986–93).

Majlis: discours sur l'ordre et la création, ed. and tr. D. Steigerwald (Sainte-Foy, Quebec: Presses de l'Université Laval, 1998).

Muslim Sects and Divisions: The Section on Muslim Sects in Kitāb al-milal wa'l niḥal, tr. A. K. Kazi and J. G. Flynn (London: Kegan Paul, 1983).

Shahrastani on the Indian Religions, tr. B. B. Lawrence (The Hague: Mouton, 1976).

Struggling with the Philosopher: A Refutation of Avicenna's Metaphysics, ed. and tr. W. Madelung and T. Mayer (London: I. B. Taurus, 2001).

Summa philosophiae: Kitāb nihāyat al-iqdām fī ʿilm al-kalām, ed. A. Guillaume (London: Oxford University Press, 1934).

Shem Tov ibn Falaquera. *Book of the Seeker*, tr. M. H. Levine (New York: Yeshiva University Press, 1976).

Epistle of the Debate: An Introduction to Jewish Philosophy, tr. S. Harvey (Cambridge, MA: Harvard University Press, 1987).

Iggeret ha-Vikuah, ed. A. Jellinek (Vienna, 1875; repr. in *Kitvei Rabbi Shem Tov Falaquera* [Jerusalem: Maqor, 1970]).

Moreh ha-Moreh, ed. Y. Shiffman, in "Rabbi Shem Tov ben Joseph Falaquera's *More ha-More*: A Philosophical and Philological Analysis" (Ph.D. dissertation: Hebrew University of Jerusalem, 1990).

Sefer ha-Mevaqqesh, ed. M. Tamah (The Hague, 1778; repr. in *Kitvei Rabbi Shem Tov Falaquera* [Jerusalem: Maqor, 1970]).

Sībawayhi. *Kitāb Sībawayhi*, ed. A. S. M. Hārūn (Cairo: Dār al-Qalam, 1966–77).

Sîbawaihi's Buch über die Grammatik, übersetzt und erklärt, tr. G. Jahn (Berlin: Reuther und Reichard, 1895–1900; repr. Hildesheim: Olms, 1969).

Siger of Brabant. *Écrits de logique, de morale, et de physique: édition critique*, ed. B. C. Bazán (Leuven: Publications universitaires, 1974).

On the Eternity of the World, tr. C. Vollert *et al.* (Milwaukee, WI: Marquette University Press, 1964).

Quaestiones in Metaphysicam: Édition revue de la reportation de Munich; Texte inédit de la reportation de Vienne, ed. W. Dunphy (Louvain-la-Neuve: Éditions de l'Institut Supérieur de Philosophie, 1981).

Quaestiones in Metaphysicam: Texte inédit de la reportation de Cambridge; Édition revue de la reportation de Paris, ed. A. Maurer (Louvain-la-Neuve: Éditions de l'Institut Supérieur de Philosophie, 1983).

Quaestiones in tertium De anima; De anima intellectiva; De aeternitate mundi, ed. B. C. Bazán (Leuven: Publications universitaires, 1972).

Les Quaestiones super librum de causis, ed. A. Marlasca (Leuven: Publications universitaires, 1972).

Siger of Courtrai. *Commentator van Perihermenaias*, ed. C. Verhaak (Brussels: Paleis der Academiën, 1964).

Les œuvres de Siger de Courtrai (étude critique et textes inédits), ed. G. Wallerand (Leuven: Institut Supérieur de Philosophie de l'Université, 1913).

Summa modorum significandi; Sophismata, ed. G. Wallerand and J. Pinborg (Amsterdam: Benjamins, 1977).

al-Sijistānī, Abū Sulaymān. *Ṣiwān al-ḥikma wa-thalāth rasāʾil*, ed. A. Badawī (Teheran: Bunyād Farhang, 1974)

al-Sijistānī, Abū Yaʿqūb. *Kashf al-maḥjūb*, ed. H. Corbin (Tehran: Institute français de recherche en Iran, 1949).

Kashf al-mahjub: Le devoilement des choses cachées, tr. H. Corbin (Lagrasse: Verdier, 1988).

Kitāb al-yanābīʿ, in H. Corbin (ed.) *Trilogie ismaélienne* (Tehran: Département d'Iranologie de l'Institut francoiranien, 1961).

The Wellsprings of Wisdom: A Study of Abū Yaʿqūb al-Sijistānī's Kitāb al-Yanābīʿ, tr. P. E. Walker (Salt Lake City: University of Utah Press, 1994).

Silhon, Jean de. *De l'immortalité de l'âme* (Paris, 1634).

Simeon Duran. *Magen Avot* (Livorno, 1785; repr. Jerusalem: Mekor, 1969).

Ohev Mishpat (Venice, 1590).

Simon of Dacia. *Opera*, ed. A. Otto (Copenhagen: Gad, 1963).

Simon of Faversham. *Opera omnia*, vol. I: *Opera logica*, ed. P. Mazzarella (Padua: CEDAM, 1957).

Quaestiones super libro elenchorum, ed. S. Ebbesen *et al.* (Toronto: Pontifical Institute of Mediaeval Studies, 1984).

Quaestiones super tertium De anima, ed. D. Sharp, *Archives d'histoire doctrinale et littéraire du moyen âge* 9 (1934) 307–68.

Simon of Hinton. *Summa iuniorum*, in John Gerson, *Opera omnia* (Antwerp, 1706) I: 233–422.

Simon of Tournai. *Disputationes*, ed. J. Warichez (Leuven: Spicilegium sacrum Lovaniense, 1932).

Institutiones in sacram paginam: Einleitung und Quästionenverzeichnis, ed. R. Heinzmann (Munich: Paderborn, 1967).

"Simon of Tournai's Commentary on the So-Called Athanasian Creed," ed. N. M. Häring, *Archives d'histoire doctrinale et littéraire du moyen âge* 43 (1976) 135–99.

"Die Texte der Trinitätslehre in den *Sententiae* des Simon von Tournai," ed. M. Schmaus, *Recherches de théologie ancienne et médiévale* 4 (1932) 59–72, 187–98, 294–307.

Simplicius. *Commentarius In Epicteti Enchiridion*, in F. Dübner (ed.) *Theophrasti Characteres* (Paris: A. Firmin-Didot, 1840).

In Aristotelis physicorum libros octo commentaria, ed. H. Diels (*Commentaria in Aristotelem Graeca* IX–X) (Berlin: Reimer, 1882, 1895).

In libros De anima commentaria, ed. M. Hayduck (*Commentaria in Aristotelem Graeca* XI) (Berlin: Reimer, 1882).

Sirmond, Antoine. *De immortalitate animae demonstratio physica et Aristotelica, adversus Pomponatium et asseclas* (Paris, 1635).

Démonstration de l'immortalité de l'ame. Tirée des principes de la nature. Fortifiée de ceux d'Aristote. Où plusieurs beaux secrets de la philosophie sont mis en leur jour (Paris, 1637).

Solomon ibn Gabirol. *Choice of Pearls*, tr. A. Cohen (New York: Bloch, 1925).

A Crown for the King, ed. and tr. D. R. Slavitt (New York: Oxford University Press, 1998).

Fons vitae, ed. C. Baeumker (Münster: Aschendorff, 1892–5).

The Improvement of the Moral Qualities, ed. and tr. S. Wise (New York: Columbia University Press, 1909; repr. New York: AMS Press, 1966).

"Liqqutim min ha-Sefer Makor Hayyim," ed. S. Munk, in *Mélanges de philosophie juive et arabe* (Paris: Franck, 1857–9; repr. Paris: Gamber, 1927).

Selected Poems, tr. P. Cole (Princeton, NJ: Princeton University Press, 2001).

Selected Religious Poems of Solomon ibn Gabirol, ed. I. Davidson (Philadelphia, PA: Jewish Publication Society of America, 1923; repr. New York: Arno Press, 1973).

Stephen Langton. *Commentary on the Book of Chronicles*, ed. A. Saltman (Ramat-Gan: Bar-Ilan University Press, 1978).

De persona, ed. M. Bieniak, *Cahiers de l'Institut du Moyen Age Grec et Latin* 77 (2006) 85–109.

Selected Sermons, ed. P. B. Roberts (Toronto: Pontifical Institute of Mediaeval Studies, 1980).

Der Sentenzenkommentar, ed. A. M. Landgraf (Münster: Aschendorff, 1952).

Stephen of Rieti. *De universalibus*, in F. Amerini, *I trattati De universalibus di Francesco da Prato e Stefano da Rieti (secolo XIV)* (Spoleto: Centro italiano di studi sull'alto medioevo, 2003) 133–45.

Stephen of Tournai. *Die Summa des Stephan von Doornick über das Decretum Gratiani*, ed. J. F. Schulte (Giessen: Roth, 1891; repr. Aalen: Scientia Verlag, 1965).

Lettres, ed. J. Desilve (Valenciennes: Lemaître, 1893).

al-Suhrawardī, Abū Ḥafṣ ʿUmar. *ʿAwārif al-maʿārif* (Beirut: Dār al-kitāb al-ʿarabī, 1983).

A Dervish Textbook from the ʿAwarifu-l-maʿarif, tr. H. W. Clarke (London: Octagon Press, 1980; orig. publ. 1891).

Die Gaben der Erkenntnisse, tr. R. Gramlich (Wiesbaden: Steiner, 1978).

al-Suhrawardī, Shihāb al-Dīn Yaḥyā. *L'Archange empourpré: quinze traités et récits mystiques*, ed. H. Corbin (Paris: Fayard, 1976).

The Mystical and Visionary Treatises of Shihabuddin Yahya Suhrawardi, tr. W. M. Thackston, Jr (London: Octagon Press, 1982).

Œuvres philosophiques et mystiques, ed. H. Corbin and S. H. Nasr (Tehran: Académie Impériale Iranienne de Philosophie, 1976–7).

The Philosophy of Illumination: A New Critical Edition of the Text of Ḥikmat al-Ishrāq, with English Translation, ed. J. Walbridge and H. Ziai (Provo, UT: Brigham Young University Press, 1999).

Syrianus. *In Metaphysica commentaria* ed. W. Kroll (*Commentaria in Aristotelem Graeca* VI.1) (Berlin: Reimer, 1902).

al-Taftāzānī. *A Commentary on the Creed of Islam: Saʿd al-Din al-Taftazani on the Creed of Najm al-Din al-Nasafi*, tr. E. E. Elder (New York, Columbia University Press, 1950; repr. New York: Books for Libraries, 1980).

   Sharḥ al-ʿaqāʾid al-Nasafiyya (Cairo: 1916).

   Sharḥ al-ʿaqāʾid al-Nasafiyya, ed. K. Salāma (Damascus: Wizārat al-Thaqāfah wa-al-Irshād al-Qawmī, 1974).

   Sharḥ al-Maqāṣid, ed. A. Umayra (Cairo: ʿĀlam al-Kutub, 1984–9).

al-Tawḥīdī. *Al-Imtāʿ wa al-muʾānasa*, ed. A. Amīn and A. al-Zayn (Cairo: Maṭbaʿat Lajnat al-Taʾlīf wa-al-Tarjamah wa-al-Nashr, 1953).

   Al-Muqābasāt, ed. M. T. Husayn (Baghdad: Maṭbaʿat al-Irshad, 1970).

Thābit ibn Qurra. *Astronomical Works*, ed. F. J. Carmody (Berkeley: University of California Press, 1960).

   Œuvres d'astronomie, ed. R. Morelon (Paris: Les Belles Lettres, 1987).

Thaddeus of Parma. *Quaestiones de anima*, ed. S. Vanni Rovighi (Milan: Vita e Pensiero, 1951).

Themistius. *In Aristotelis Metaphysicorum librum Λ, paraphrasis hebraice et latine*, ed. S. Landauer (Berlin: Reimer, 1903).

   In libros Aristotelis De caelo paraphrasis hebraice et latine, ed. S. Landauer (Berlin: Reimer, 1902).

   Paraphrasis of the Posterior Analytics, tr. [Latin] Gerard of Cremona, ed. J. R. O'Donnell, *Mediaeval Studies* 20 (1958) 239–315.

Themon Judaeus. *In quatuor libros Meteorum*, ed. G. Lokert (Paris, 1516).

   L'œuvre astronomique de Themon Juif, maître parisien du XIVᵉ siècle, ed. H. Hugonnard-Roche (Geneva: Droz, 1973).

Theodore II Dukas Laskaris. "Deux traités inédits de Theodore II Doucas Lascaris," ed. P.-M. Palaiologou, *Byzantina* 27 (2007) 51–90.

   Kosmikē dēlōsis, ed. N. Festa, *Giornale della Società Asiatica Italiana* 11 (1897/8) 101–14; 12 (1899) 39–52.

   Opuscula rhetorica, ed. A. Tartaglia (Leipzig: Teubner, 2000).

   Per christianikes theologias logoi, ed. C. T. Krikones, 2nd edn (Thessaloniki: Patriarchikon Hidryma Paterikon Meleton, 1988).

Theodore Abū Qurrah. *Mayāmir Thāwdūrus Abī Qurra usquf Ḥarrān*, ed. C. Bacha (Beirut: Maṭbaʿat al-Fawāʾid, 1904).

   Maymar fī ikrām al-ayqūnāt = Traité du culte des icônes, ed. I. Dick (Jounieh: Librairie Saint Paul, 1986).

   Maymar fī wujūd al-khāliq wa-al-dīn al-qawīm = Traité de l'existence du Créateur et de la vraie religion, ed. I. Dick (Jounieh: Librairie Saint Paul, 1982).

   Theodore Abu Qurrah, tr. J. C. Lamoreaux (Provo, UT: Brigham Young University Press, 2005).

Theodore Gazes. *De fato*, ed. and tr. J. W. Taylor (Toronto: University of Toronto Library, 1925).

   "Introduction à la grammaire, libri IV," ed. D. Donnet, *Byzantion* 49 (1979) 133–55.

Theodore Metochites. *Ethikos e Peri paideias*, ed. I. D. Polemes (Athens: Ekdoseis Kanake, 1995).

   Miscellanea philosophica et historica, ed. C. G. Müller and T. Kiessling (Leipzig: Vogelii, 1821; repr. Amsterdam: Hakkert, 1966).

   Paraphrasis in Aristotelis universam naturalem philosophiam (Basel, 1559; repr. Stuttgart-Bad Cannstaat: Frommann-Holzboog, 1992).

   Theodore Metochites on Ancient Authors and Philosophy: Semeioseis gnomikai 1–26 & 71, ed. and tr. K. Hult (Gothenburg: Acta Universitatis Gothoburgensis, 2002).

Theodulf of Orleans. *Opus Caroli Regis contra Synodum* (*Libri Carolini*), ed. A. Freeman (Hannover: Hahnsche Buchhandlung, 1998).

Thierry of Chartres. *Commentaries on Boethius*, ed. N. M. Häring (Toronto: Pontifical Institute of Mediaeval Studies, 1971).

    The Latin Rhetorical Commentaries, ed. K. M. Fredborg (Toronto: Pontifical Institute of Mediaeval Studies, 1988).

Thomas Aquinas. *The Basic Writings*, ed. A. C. Pegis (New York: Random House, 1945).

    De ente et essentia (Venice, 1496).

    Dēmētriou Kydōnē, Thōma Akuinatou Summa theologikē exellēnistheisa, eds. G. Leontsinis *et al.* (Athens: Publication de la Fondation de Recherche et d'Éditions de Philosophie Néohellénique, 1976–2002).

    An Exposition of the "On the Hebdomads" of Boethius, tr. J. L. Schultz and E. A. Synan (Washington, DC: Catholic University of America Press, 2001).

    In Aristotelis libros De caelo et mundo, De generatione et corruptione, Meteorologicorum expositio, ed. R. M. Spiazzi (Rome: Marietti, 1952).

    In De divinis nominibus expositio, ed. C. Pera *et al.* (Turin: Marietti, 1950).

    In duodecim libros Metaphysicorum Aristotelis expositio, ed. M. R. Cathala and R. M. Spiazzi (Rome: Marietti, 1971).

    In octo libros Physicorum Aristotelis expositio, ed. P. M. Maggiòlo (Turin: Marietti, 1965).

    On Being and Essence, tr. A. Maurer (Toronto: Pontifical Institute of Mediaeval Studies, 1968).

    On the Eternity of the World, tr. C. Vollert *et al.* (Milwaukee, WI: Marquette University Press, 1964).

    On the Unity of the Intellect Against the Averroists, tr. B. Zedler (Milwaukee, WI: Marquette University Press, 1968).

    Opera omnia (Parma: Fiaccadori, 1852–73).

    Opera omnia, ed. Leonine Commission (Rome: Commissio Leonina, 1882–).

    Opuscula theologica, ed. R. A. Verardo *et al.* (Rome: Marietti, 1954).

    Super epistolas S. Pauli lectura, ed. R. Cai (Turin: Marietti, 1953).

    Super librum de causis expositio, ed. H. D. Saffrey (Fribourg: Société Philosophique, 1954).

Thomas of Bailly. *Quodlibeta*, ed. P. Glorieux (Paris: Vrin, 1960).

Thomas Bradwardine. *Arithmetica speculativa* (Paris, 1495).

    De causa Dei contra Pelagium et de virtute causarum ad suos Mertonenses, libri tres, ed. H. Savile (London: apud I. Billium, 1618; repr. Frankfurt: Minerva, 1964).

    De continuo, in J. Murdoch (ed.) "Geometry and the Continuum in the Fourteenth Century: A Philosophical Analysis of Thomas Bradwardine's *Tractatus de continuo*" (Ph.D. dissertation, University of Wisconsin, 1957).

    De futuris contingentibus, ed. J.-F. Genest, *Recherches Augustiniennes* 14 (1979) 249–336.

    De incipit et desinit, ed. L. O. Nielsen, *Cahiers de l'Institut du Moyen Age Grec et Latin* 42 (1982) 1–83.

    De insolubilibus, ed. M. L. Roure, *Archives d'histoire doctrinale et littéraire du moyen âge* 37 (1970) 205–326.

    De proportionibus velocitatum in motibus, ed. and tr. H. L. Crosby (Madison: University of Wisconsin Press, 1955).

    Geometria speculativa, ed. and trans. A. G. Molland (Wiesbaden: Steiner, 1989).

    Insolubilia, ed. and tr. S. Read (Leuven: Peeters, forthcoming).

    Opus artis logicae, ed. J. Pinborg, *Cahiers de l'Institut du Moyen Age Grec et Latin* 42 (1982) 151–64.

    Quaestiones circa tractatum proportionum magistri Thome Braduardini, ed. S. Rommevaux *et al.* (Paris: Vrin, 2006).

Thomas Buckingham. *In quatuor libros Sententiarum* (Paris, 1505).

Thomas of Cantimpré. *Les exemples du "Livre des abeilles": une vision médiévale*, ed. H. Platelle (Turnhout: Brepols, 1997).

Liber de natura rerum, ed. H. Boese (Berlin: De Gruyter, 1973).

Thomas of Celano. *Vita secunda S. Francisci Assisiensis* (Quaracchi: Editiones Collegii S. Bonaventurae, 1927).

Thomas of Chobham. *Sermones*, ed. F. Morenzoni (Turnhout: Brepols, 1993).

Summa confessorum, ed. F. Broomfield (Leuven: Éditions Nauwelaerts, 1968).

Summa de arte praedicandi, ed. F. Morenzoni (Turnhout: Brepols, 1988).

Thomas of Cleves. *Concepts: The Treatises of Thomas of Cleves and Paul of Gelria, an Edition of the Texts with a Systematic Introduction*, ed. E. P. Bos and S. Read (Louvain-la-Neuve: Éditions de l'Institut Supérieur de Philosophie, 2001).

Thomas of Erfurt. *Fundamentum puerorum*, in R. Gansiniec (ed.) *Metrificale marka z opatowca i traktaty gramatyczne XIV i XV wieku* (Warsaw: Zaklad Narodowy im. Ossolinskich, 1960).

Grammatica speculativa, ed. and tr. G. L. Bursill-Hall (London: Longmans, 1972).

Thomas Gallus. *Commentaires du Cantique des Cantique*, ed. J. Barbet (Paris: Béatrice-Nauwelaerts, 1972).

Grand commentaire sur la Théologie Mystique, ed. G. Théry (Paris: Haloua, 1934).

Mystical Theology: The Glosses by Thomas Gallus and the Commentary of Robert Grosseteste on "De Mystica Theologia", ed. and tr. J. McEvoy (Paris: Peeters, 2003).

Thomas of Strasbourg. *Super quatuor libros Sententiarum* (Strasbourg, 1490; repr. Frankfurt, 1989).

Thomas of Sutton. *Contra quodlibet Iohannis Duns Scoti*, ed. J. Schneider (Munich: Bayerische Akademie der Wissenschaften, 1978).

Der liber propugnatorius des Thomas Anglicus und die Lehrunterschiede zwischen Thomas von Aquin und Duns Scotus, ed. M. Schmaus (Münster: Aschendorff, 1930).

Expositionis D. Thomae Aquinatis in libros Aristotelis de generatione et corruptione continuatio, ed. F. Kelley (Munich: Bayerische Akademie der Wissenschaften, 1976).

Liber propugnatorius super primum Sententiarum contra Johannem Scotum (Venice, 1523; repr. Frankfurt: Minerva, 1966).

Quaestiones ordinariae, ed. J. Schneider (Munich: Bayerische Akademie der Wissenschaften, 1977).

Quodlibeta, ed. M. Schmaus and M. Gonzalez-Haba (Munich: Bayerische Akademie der Wissenschaften, 1969).

Tractatus de esse et essentiae, ed. W. Senko, *Studia Mediewistycne* 11 (1970) 233–59.

Tractatus de productione formarum substantialium, ed. Z. Wlodek, *Archives d'histoire doctrinale et littéraire du moyen âge* 54 (1979) 142–68.

Thomas of York. *Manus quae contra omnipotentem*, ed. M. Bierbaum, *Franziskanische Studien* 2 (1920) 37–168.

Thuo of Viborg. *Opera*, ed. A. Tabarroni and S. Ebbesen (Copenhagen: Reitzel, 1998).

al-Ṭūsī. *Akhlāq-i nāṣirī*, ed. M. Mīnuwi and A. R. Ḥaydarī (Tehran: Khvārazmī, 1977).

Asās al-iqtibās, ed. M. Radawi (Tehran: Tehran University Press, 1947).

Contemplation and Action: The Spiritual Autobiography of a Muslim Scholar, ed. and tr. S. J. Badakhchani (London: I. B. Taurus, 2005).

Memoir on Astronomy: al-tadhkira fī ʿilm al-hayʾa, ed. and tr. F. J. Ragep (New York: Springer, 1993).

The Metaphysics of Tusi: Treatise on the Proof of a Necessary Being, Treatise on Determinism and Destiny, Treatise on Division of Existents, tr. P. Morewedge (New York: SSIPS, 1992).

The Nasirean Ethics, tr. G. M. Wickens (London: George Allen and Unwin, 1964).

Paradise of Submission: A Medieval Treatise on Ismaili Thought, ed. and tr. S. J. Badakhchani (London: I. B. Taurus, 1998).

Tajrīd al-ʿaqāʾid, ed. A. Sulayman (Alexandria: Dār al-Maʿrifah al-Jāmiʿīyah, 1996).

Ubertino da Casale. *Arbor vitae crucifixae Jesu*, ed. Andrea de Bonetis (Venice, 1485; repr. Turin: Bottega d'Erasmo, 1961).

Declaratio, ed. F. Ehrle, *Archiv für Literatur- und Kirchengeschichte des Mittelalters* 3 (1887) 162–96.

Rotulus Iste, ed. F. Ehrle, *Archiv für Literatur- und Kirchengeschichte des Mittelalters* 3 (1887) 93–137.

Sanctitati apostolicae, ed. F. Ehrle, *Archiv für Literatur- und Kirchengeschichte des Mittelalters* 3 (1887) 377–416.

Ulrich of Strasbourg. *De summo bono*, ed. B. Mojsisch *et al.* (Hamburg: Meiner, 1989).

Urso of Salerno. *De coloribus*, ed. L Thorndike, *Ambix* 7 (1959) 7–16.

De commixtionibus elementorum libellus, ed. W. Stürner (Stuttgart: Klett, 1976).

Vincent of Beauvais. *De eruditione filiorum nobilium*, ed. A. Steiner (Cambridge, MA: Mediaeval Academy of America, 1938; repr. New York: Kraus, 1970).

De morali principis institutione, ed. R. Schneider (Turnhout: Brepols, 1995).

Opuscula, scilicet: libri de gratia: libri laudum Virginis gloriose: liber de sancto Johanne evangelista: liber de eruditione puerorum regalium: liber consolatorius de morte amici, ed. J. Amerbach (Basel, 1481).

Speculum quadruplex, naturale, doctrinale, morale, historiale (Douai, 1624; repr. Graz: Akademische Druck, 1964–5).

Vincent Ferrer. *Œuvres*, ed. P.-H. Fages (Paris: Picard, 1909).

Opuscula ascetica, ed. M.-J. Rousset (Paris: Lethielleux, 1899).

Quaestio de unitate universalis, ed. J. A. Trentman, *Mediaeval Studies* 44 (1982) 122–37.

Sermons, ed. J. Sanchis y Sivera and G. Schib (Barcelona: Edit. Barcino, 1971–).

Tractatus de suppositionibus, ed. J. A. Trentman (Stuttgart-Bad Cannstatt: Fromman Holzboog, 1977).

A Treatise on the Spiritual Life (Westminster, MD: Newman Press, 1957).

Vital du Four. *De rerum principio*, in John Duns Scotus, *Opera omnia* (Paris: Vivès, 1891) IV: 257–471.

Expositio in Apocalypsim, in B. Bonelli (ed.) *Supplementum operum omnium S. Bonaventurae* (Trente, 1773) II: 5–1035.

Quaestiones disputatae de cognitione, ed. F. Delorme, *Archives d'histoire doctrinal et littéraire du moyen âge* 2 (1927) 151–337.

Quodlibeta tria, ed. F. Delorme (Rome: Pontificium Athenaeum Antonianum, 1947).

Speculum morale totius sacrae Scripturae (Lyon: J. Moylin, 1513).

Walahfrid Strabo. *Libellus de exordiis et incrementis quarundam in observationibus ecclesiasticis rerum*, ed. A. Harting-Correa (Leiden: Brill, 1996).

The Life of St. Gall, tr. M. Joynt (Toronto: Macmillan, 1927).

Visio Wettini, ed. and tr. D. Traill (Bern: Lang, 1974).

Walter of Ailly. "Un sophisme grammatical modiste de maître Gauthier d'Ailly," ed. I. Rosier, *Cahiers de l'Institut du Moyen Age Grec et Latin* 59 (1989) 181–232.

Walter of Bruges. *Quaestiones disputatae*, ed. E. Longpré (*Les Philosophes Belges* X) (Leuven: Institut Supérieur de Philosophie, 1928).

Walter Burley. *Commentarius in librum Perihermeneias*, ed. S. F. Brown, *Franciscan Studies* 33 (1973) 42–134.

De consequentiis, ed. N. J. Green-Pedersen, *Franciscan Studies* 40 (1980) 102–66.

De exceptivis, ed. L. M. de Rijk, *Vivarium* 24 (1986) 22–49.

De exclusivis, ed. L. M. de Rijk, *Vivarium* 23 (1985) 23–54.

De insolubilibus, ed. M. L. Roure, *Archives d'histoire doctrinale et littéraire du moyen âge* 45 (1970) 205–326.

De intensione et remissione formarum (Venice, 1496).

De obligationibus, in R. Green (ed.) "An Introduction to the Logical Treatise De obligationibus, with Critical Texts of William of Sherwood [?] and Walter Burley" (Ph.D. dissertation: Katholieke Universiteit Leuven, 1963).

De potentiis animae, ed. M. J. Kitchel, *Mediaeval Studies* 33 (1971) 85–113.

De primo et ultimo instanti, ed. H. Shapiro and C. Shapiro, *Archiv für Geschichte der Philosophie* 47 (1965) 159–73.

De puritate artis logicae. Tractus longior, with a Revised Edition of the Tractatus brevior, ed. P. Boehner (St. Bonaventure, NY: Franciscan Institute, 1955).

De relativis, ed. H. Shapiro and M. Kiteley, *Franciscan Studies* 22 (1962) 155–71.

De suppositionibus, ed. S. Brown, *Franciscan Studies* 32 (1972) 15–64.

Expositio in libros octo Physicorum Aristotelis (Venice, 1501; repr. Hildesheim: Olms, 1972).

Expositio super artem veterem Porphyrii et Aristotelis (Venice, 1509).

Klopotliwa zmiana czyli Waltera Burleya zmagania ze zmiennoscia rzeczy [*Commentarius in libros De generatione et corruptione*], ed. M. Gensler (Lódz: Wydawnictwo Uniwersytetu Lódziego, 2007).

On the Purity of the Art of Logic: The Shorter and the Longer Treatises, tr. P. V. Spade (New Haven, CT: Yale University Press, 2000).

Quaestiones circa tertium De anima, ed. E. A. Synan (Leiden: Brill, 1997).

Quaestiones in librum Perihermeneias, ed. S. F. Brown, *Franciscan Studies* 34 (1974) 200–95.

Quaestiones super librum Posteriorum, ed. M. C. Sommers (Toronto: Pontifical Institute of Mediaeval Studies, 2000).

Tractatus de formis, ed. by J. D. Scott (Munich: Bayerische Akademie der Wissenschaften, 1970).

Tractatus de universalibus, ed. H.-U. Wöhler (Leipzig: Verlag der Sächsischen Akademie der Wissenschaften, 1999).

Tractatus super librum Praedicamentorum (ms. in Cambridge, Peterhouse, ms. 184) 171ra–89va.

Walter Chatton. *Collatio ad Librum Primum et Prologus*, ed. J. C. Wey (Toronto: Pontifical Institute of Mediaeval Studies, 1989).

De paupertate evangelica, ed. D. Douie, *Archivum Franciscanum Historicum* 24 (1931) 341–69; 25 (1932) 36–58; 26 (1932) 210–40.

Lectura super Sententias, ed. G. J. Etzkorn and J. C. Wey (Toronto: Pontifical Institute of Mediaeval Studies, 2007–).

Reportatio et lectura super Sententias: Collatio ad librum primum et prologus, ed. J. C. Wey (Toronto: Pontifical Institute of Mediaeval Studies, 1989).

Reportatio super Sententias, ed. J. C. Wey and G. J. Etzkorn (Toronto: Pontifical Institute of Mediaeval Studies, 2002–5).

Walter Daniel. *The Life of Ailred of Rievaulx*, ed. and tr. F. M. Powicke (London: Nelson, 1950; repr. Oxford: Oxford University Press, 1978; repr. Kalamazoo, MI: Cistercian Publications, 1994).

Walter Hilton. *Mixed Life*, ed. S. J. Ogilvie-Thomson (Salzburg: Institut für Anglistik und Amerikanistik, Universität Salzburg, 1986).

The Scale of Perfection, ed. E. Underhill (London: J. M. Watkins, 1923; repr. 1948).

The Scale of Perfection, tr. J. P. H. Clark and R. Dorward (New York: Paulist Press, 1991).

Wāṣil ibn 'Aṭā'. *Wāṣil ibn 'Aṭā' als Prediger und Theologe: ein neuer Text aus dem 8. Jahrhundert n. Chr.*, ed. H. Daiber (Leiden: Brill, 1988).

William of Alnwick. *Quaestiones disputatae de esse intelligibili et de quodlibet*, ed. A. Ledoux (Quaracchi: Editiones Collegii S. Bonaventurae, 1937).

William of Auvergne. *De arte predicandi*, ed. A. de Poorter, *Revue néoscolastique de philosophie* 25 (1923) 192–209.

De bono et malo, ed. J. R. O'Donnell, *Mediaeval Studies* 8 (1946) 245–99; 16 (1954) 219–71.

De errore Pelagii, ed. A. Landgraf, *Speculum* 5 (1930) 168–80.

De immortalitate animae, in G. Bülow (ed.) *Des Dominicus Gundissalinus Schrift von der Unsterblichkeit der Seele* (Münster: Aschendorff, 1897).

De Trinitate, ed. B. Switalski (Toronto: Pontifical Institute of Mediaeval Studies, 1976).

The Immortality of the Soul, tr. R. J. Teske (Milwaukee, WI: Marquette University Press, 1991).

Opera omnia, ed. B. Le Feron (Paris, 1674; repr. Frankfurt: Minerva, 1963).

The Providence of God Regarding the Universe: Part Three of the First Principal Part of The Universe of Creatures, tr. R. J. Teske (Milwaukee, WI: Marquette University Press, 2007).

The Soul, tr. R. J. Teske (Milwaukee, WI: Marquette University Press, 2000).

Tractatus de gratia, ed. G. Corti (Rome: Lateran University, 1966).

The Trinity, or, The First Principle, tr. R. J. Teske and F. C. Wade (Milwaukee, WI: Marquette University Press, 1989).

The Universe of Creatures, tr. R. J. Teske (Milwaukee, WI: Marquette University Press, 1998).

William of Auxerre. *Summa aurea*, ed. J. Ribaillier (Paris: Centre National de la Recherche Scientifique, 1980–7).

William of Conches. *A Dialogue on Natural Philosophy (Dragmaticon philosophiae)*, tr. I. Ronca and M. Curr (Notre Dame, IN: University of Notre Dame Press, 1997).

Dragmaticon, ed. I. Ronca *et al.* (Turnhout: Brepols, 1997).

Glosae in Iuvenalem, ed. B. Wilson (Paris: Vrin, 1980).

Glosae super Boetium, ed. L. Nauta (Turnhout: Brepols, 1999).

Glosae super Platonem, ed. E. Jeauneau (Turnhout: Brepols, 2006).

Moralium dogma philosophorum, ed. J. Holmberg (Uppsala: Almquist, 1929).

Philosophia, ed. G. Maurach and H. Telle (Pretoria: University of South Africa Press, 1980).

William Crathorn. *Quästionen zum ersten Sentenzenbuch*, ed. F. Hoffmann (Münster: Aschendorff, 1988).

William Heytesbury. *On 'Insoluble' Sentences: Chapter One of his Rules for Solving Sophisms*, tr. P. V. Spade (Toronto: Pontifical Institute of Medieval Studies, 1979).

On Maxima and Minima: Chapter 5 of Rules for Solving Sophismata, with an Anonymous Fourteenth-Century Discussion, ed. and tr. J. Longeway (Dordrecht: Kluwer, 1984).

Sophismata asinina, ed. F. Pironet (Paris: Vrin, 1994).

Tractatus Gulielmi Hentisberi de sensu composito et diviso, Regulae ejusdem cum Sophismatibus, ed. J. M. Mapellus (Venice, 1494).

William de la Mare. *Commentarium in libros Sententiarum*, ed. H. Kraml (Munich: Beck, 1989–2001).

Correctorium Fratris Thomae, in P. Glorieux (ed.) *Les premières polémiques thomistes: I. Le correctorium corruptorii "Quare"* (Kain: Le Saulchoir, 1927).

Correctorium Fratris Thomae, 2nd redaction, in A. Oliva (ed.) "La deuxième rédaction du Correctorium de Guillaume de la Mare: les questions concernant la I pars," *Archivium Franciscanum Historicum* 98 (2005) 421–64.

William of Lucca. *Commentum in tertiam ierarchiam Dionisii que est de divinis nominibus*, ed. F. Gastaldelli (Florence: Olschki, 1983).

De arithmetica compendiose tractata: dal codice 614 (sec. XII) della Biblioteca capitolare Feliniana di Lucca, ed. G. Arrighi (Pisa: Domus Galilaeana, 1964).

Summa dialetice artis, ed. L. Pozzi (Padua: Liviana, 1975).

William of Macclesfield. *Le Correctorium Corruptorii "Quaestione"*, ed. J. P. Müller (Rome: Herder, 1954).

William of Middleton. *Opusculum super missam*, ed. W. Lampen (Quaracchi: Editiones Collegii S. Bonaventurae, 1931).

Quaestiones de sacramentis, ed. C. Piana and G. Gál (Quaracchi: Editiones Collegii S. Bonaventurae, 1961).

William Milverley. *Compendium de quinque universalibus* [excerpts], ed. A. D. Conti, in Johannes Sharpe, *Quaestio super universalia* (Florence: Olschki, 1990) 159–64.

William of Nottingham. *Quaestiones sex de Eucharistiae sacramento* [*Sent*. IV.8–13], ed. J. Barbarić (Vicenza: LIEF, 1976).

William of Ockham. *Commentary on Porphyry*, tr. E.-H. Kluge, *Franciscan Studies* 33 (1973) 171–254; 34 (1974) 306–82.

The De sacramento altaris, tr. T. B. Birch (Burlington, IA: Lutheran Literary Board, 1930).

Demonstration and Scientific Knowledge in William of Ockham: A Translation of Summa Logicae III-II: De Syllogismo Demonstrativo, *and Selections from the Prologue to the* Ordinatio, tr. J. Longeway (Notre Dame, IN: University of Notre Dame Press, 2007).

Dialogus, ed. and tr. J. Kilcullen *et al*.: www.britae.ac.uk/pubS/dialogus/ockdial.html.

A Letter to the Friars Minor, and Other Writings, tr. A. S. McGrade and J. Kilcullen (Cambridge: Cambridge University Press, 1995).

Ockham on Aristotle's Physics: A Translation of Ockham's Brevis Summa Libri Physicorum, tr. J. Davies (St. Bonaventure, NY: Franciscan Institute, 1989).

Ockham on the Virtues, tr. R. Wood (West Lafayette, IN: Purdue University Press, 1997).

Ockham's Theory of Propositions, tr. A. Freddoso and H. Schuurman (Notre Dame, IN: Notre Dame University Press, 1980).

Ockham's Theory of Terms, tr. M. Loux (Notre Dame, IN: Notre Dame University Press, 1974).

On the Power of Emperors and Popes, tr. A. S. Brett (Durham, NC: University of Durham Press, 1998).

Opera philosophica et theologica (St. Bonaventure, NY: Franciscan Institute, 1967–89).

Opera politica, ed. H. S. Offler *et al.* (Manchester: Manchester University Press, 1940–97).

Philosophical Writings, tr. P. Boehner, rev. S. Brown (Indianapolis, IN: Hackett, 1990).

Predestination, God's Foreknowledge, and Future Contingents, tr. M. Adams and N. Kretzmann, 2nd edn (Indianapolis, IN: Hackett, 1983).

Quodlibetal Questions, tr. A. Freddoso and F. Kelley (New Haven, CT: Yale University Press, 1991).

A Short Discourse on the Tyrannical Government, tr. A. S. McGrade and J. Kilcullen (Cambridge: Cambridge University Press, 1992).

Work of Ninety Days, tr. J. Kilcullen and J. Scott (Lewiston, NY: E. Mellen Press, 2001).

William of Pagula. *De speculo regis Edwardi III*, ed. J. Moisant (Paris: Picard, 1891).

Instructions for Parish Priests, tr. J. Mirk, ed. E. Peacock (London: Trübner, 1868; repr. Milwood, NY: Kraus, 1975).

William Penbygull. *De universalibus*, ed. A. D. Conti, *Medioevo* 8 (1982) 137–203.

William Peraldus. *De eruditione seu de institutione religiosorum* (Paris, 1512).

Summa de virtutibus et vitiis (Cologne, 1497).

William of Peter Godin. *Tractatus de causa immediata ecclesiastice potestatis*, ed. W. D. McCready (Toronto: Pontifical Institute of Mediaeval Studies, 1982).

William of Rennes. *Glossa, in Raymond of Pennafort, Summa de poenitentia* (Rome, 1603).

William of Rubio. *Disputatorum in quatuor libros magistri Sententiarum tomus prior [et secundus]* (Paris, 1518).

William of St. Amour. *De periculis novissimorum temporum*, ed. and tr. G. Geltner (Paris: Peeters, 2007).

Opera omnia (Constance, 1632; repr. Hildesheim: Olms, 1997).

The Opuscula of William of Saint-Amour: The Minor Works of 1255–1256, ed. A. Traver (Münster: Aschendorff, 2003).

William of St. Thierry. *De natura corporis et animae*, ed. M. Lemoine (Paris: Les Belles Lettres, 1988).

The Enigma of Faith, tr. J. Anderson (Washington, DC: Cistercian Publications, 1974).

Exposition on the Epistle to the Romans, tr. J. Hasbrouck and J. Anderson (Kalamazoo, MI: Cistercian Publications, 1980).

The Golden Epistle: A Letter to the Brethren at Mont Dieu, tr. T. Berkeley and J. Déchanet (Spencer, MA: Cistercian Publications, 1971).

The Mirror of Faith, tr. T. Davis (Kalamazoo, MI: Cistercian Publications, 1979).

The Nature and Dignity of Love, tr. T. Davis (Kalamazoo, MI: Cistercian Publications, 1981).

On Contemplating God, tr. Sister Penelope (Spencer, MA: Cistercian Publications, 1971).

Opera omnia, ed. P. Verdeyen and. A van Burink (Turnhout: Brepols, 1989–).

William of Sherwood. *De obligationibus*, in R. Green (ed.) "An Introduction to the Logical Treatise *De obligationibus*, with Critical Texts of William of Sherwood [?] and Walter Burley" (Ph.D. dissertation: Katholieke Universiteit Leuven, 1963).

Insolubilia, ed. M. L. Roure, *Archives d'histoire doctrinale et littéraire du moyen âge* 37 (1970) 205–326.

Introduction to Logic, tr. N. Kretzmann (Minneapolis: University of Minnesota Press, 1966; repr. Westport, CT: Greenwood Press, 1975).

Introductiones in Logicam: Einführung in die Logik, ed. H. Brands and C. Kann (Hamburg: Meiner, 1995).

Syncategoremata, ed. J. R. O'Donnell, *Mediaeval Studies* 3 (1941) 46–93.

Treatise on Syncategorematic Words, tr. N. Kretzmann (Minneapolis: University of Minnesota Press, 1968).

Witelo. *Book V of Witelo's* Perspectiva: *An English Translation, with Introduction and Commentary and Latin Edition of the First Catoptrical Book of Witelo's* Perspectiva, ed. and tr. A. M. Smith (Warsaw: Polish Academy of Sciences Press, 1983).

De causa primaria poenitentiae in hominibus et de natura daemonum, ed. G. Burchardt, *Studia Copernicana* 19 (1979) 155–208.

Perspectiva, ed. F. Risner (Basel, 1572; repr. New York: Johnson, 1972).

Perspectivae liber primus, ed. and tr. S. Unguru (Warsaw: Polish Academy of Sciences Press, 1977).

Perspectivae liber secundus et liber tertius, ed. and tr. S. Unguru (Warsaw: Polish Academy of Sciences Press, 1991).

Yaḥyā ibn ʿAdī. *La grande polémique antinestorienne*, ed. and tr. E. Platti (Leuven: Peeters, 1981).

Maqāla fī al-tawḥīd, ed. S. Khalīl (Rome: al-Maʿhad al-Bābawī al-Sharqī, 1980).

Maqālāt Yaḥyā ibn ʿAdī al-falsafiyya, ed. S. Khulayfāt (Amman: al-Jāmiʿa al-Urdunīyya, 1988).

Petits traités apologétiques de Yaḥia ben ʿAdī, ed. A. Périer (Gabalda: Geuthner, 1920).

The Reformation of Morals: A Parallel English–Arabic Text, ed. and tr. S. H. Griffith (Provo, UT: Brigham Young University Press, 2002).

Refutation of the Doctrine of Acquisition, ed. and tr. S. Pines and M. Schwarz, in S. Blau et al. (eds.) *Studia Orientalia Memoriae D.H. Baneth Dedicata* (Jerusalem: Magnes Press, 1979) 49–94.

Über den Nachweis der Natur des Möglichen [On the Possible], ed. C. Ehrig-Eggert, *Zeitschrift für Geschichte der arabisch-islamischen Wissenschaften* 5 (1989) 283–97.

BIBLIOGRAPHY OF SECONDARY SOURCES

Aasi, Ghulam Haider. *Muslim Understanding of Other Religions: A Study of Ibn Hazm's Kitāb al faṣl fī al-milal wa-al-ahwāʾ wa-al-niḥal* (Islamabad: International Institute of Islamic Thought and Islamic Research Institute, 1999).

Abed, Shukri. *Aristotelian Logic and the Arabic Language in Alfarabi* (Albany: State University of New York Press, 1991).

Acar, Rahim. *Talking about God and Talking about Creation: Avicenna's and Thomas Aquinas' Positions* (Leiden: Brill, 2005).

Adams, Marilyn McCord. "Ockham on Final Causality: Muddying the Waters," *Franciscan Studies* 56 (1998) 1–46.

"Ockham on Identity and Distinction," *Franciscan Studies* 36 (1976) 5–74.

"Scotus and Ockham on the Connection of the Virtues," in L. Honnefelder *et al.* (eds.) *John Duns Scotus: Metaphysics and Ethics* (Leiden: Brill, 1996) 499–522.

William Ockham (Notre Dame, IN: University of Notre Dame Press, 1987).

Adamson, Peter. "Abū Maʿshar, al-Kindī and the Philosophical Defense of Astrology," *Recherches de théologie et philosophie médiévales* 69 (2002) 245–70.

The Arabic Plotinus (London: Duckworth, 2002).

"The Arabic Sea Battle: al-Fārābī on the Problem of Future Contingents," *Archiv für Geschichte der Philosophie* 88 (2006) 163–88.

"Before Essence and Existence: Al-Kindi's Conception of Being," *Journal of the History of Philosophy* 40 (2002) 297–312.

Al-Kindī (Oxford: Oxford University Press, 2007).

"Al-Kindi and the Reception of Greek Philosophy," in P. Adamson and R. Taylor (eds.) *The Cambridge Companion to Arabic Philosophy* (Cambridge: Cambridge University Press, 2005) 32–51.

"Miskawayh's Psychology," in P. Adamson (ed.) *Classical Arabic Philosophy: Sources and Reception* (London: Warburg Institute, 2007) 39–54.

Adang, Camilla. *Muslim Writers on Judaism and the Hebrew Bible: From Ibn Rabban to Ibn Hazm* (Leiden: Brill, 1996).

Addas, Claude. *Quest for Red Sulphur: The Life of Ibn ʿArabī*, tr. P. Kingsley (Cambridge: Islamic Texts Society, 1993).

Adnés, Pierre. "Pénitence," in M. Viller *et al.* (eds.) *Dictionnaire de spiritualité* (Paris: Beauchesne, 1984) XII.1: 943–1004.

Aerts, W. J. *et al.* (eds.). *Vincent of Beauvais and Alexander the Great: Studies on the* Speculum maius *and its Translations into Medieval Vernaculars* (Groningen: Forsten, 1986).

Aertsen, Jan A. *Medieval Philosophy and the Transcendentals: The Case of Thomas Aquinas* (Leiden: Brill, 1996).

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"Ontology and Henology in Medieval Philosophy (Thomas Aquinas, Master Eckhart and Berthold of Moosburg)," in E. Bos and P. Meyer (eds.) *On Proclus and his Influence in Medieval Philosophy* (Leiden: Brill, 1992) 120–40.

Aertsen, Jan A. and Gerhard Endress (eds.). *Averroes and the Aristotelian Tradition: Sources, Constitution, and Reception of the Philosophy of Ibn Rushd (1126–1198)* (Leiden: Brill, 1999).

Aertsen, Jan A. and Andreas Speer (eds.). *Was ist Philosophie im Mittelalter? Qu'est-ce que la philosophie au moyen âge? What is Philosophy in the Middle Ages?* (Berlin: De Gruyter, 1998).

Aertsen, Jan A., Kent Emery, and Andreas Speer (eds.). *Nach der Verurteilung von 1277: Philosophie und Theologie an der Universität von Paris im letzten Viertel des 13. Jahrhunderts: Studien und Texte* (Berlin: De Gruyter, 2001).

Affifi, Abul Ela. *The Mystical Philosophy of Muhyid Din-Ibnul Arabi* (Cambridge: Cambridge University Press, 1938).

Ahmad, Rashid. "Abu al-Qasim al-Qushairi as a Theologian and Commentator," *Islamic Quarterly* 13 (1969) 16–69.

Ahner, Moritz Max. *Fredegis von Tours: ein Beitrag zur Geschichte der Philosophie im Mittelalter* (Leipzig: Brückner und Niemann, 1878).

Aiello, Andrea and Robert Wielockx. *Goffredo di Fontaines, aspirante baccelliere Sentenziario: le autografe "Notule de scientia theologie" e la cronologia del ms. Paris BNF Lat. 16297* (Turnhout: Brepols, 2008).

Akasoy, Anna. *Philosophie und Mystik in der späten Almohadenzeit die Sizilianischen Fragen des Ibn Sabʿīn* (Leiden: Brill, 2006).

al-ʿAlawi, J. D. *Muʾallafat Ibn Bajja* (Beirut: Dar ath-Thaqafa, 1983).

Albert, Karl. *Meister Eckarts These vom Sein: Untersuchungen zur Metaphysik des Opus tripartitum* (Saarbrücken: Universitäts- und Schulbuchverlag, 1976).

Alessio, Gian Carlo. "Il commento di Gentile da Cingoli a Martino di Dacia," in D. Buzzetti *et al.* (eds.) *L'insegnamento della logica a Bologna nel XIV secolo* (Bologna: Istituto per la Storia dell'Università, 1992) 4–71.

Allard, Guy (ed.). *Jean Scot écrivain* (Montréal: Bellarmin, 1986).

Allard, Michel. *Le problème des attributs divins dans la doctrine d'al-Asʿari et de ses premiers grands disciples* (Beirut: Imprimerie Catholique, 1965).

Allen, Elliot B. "Hervaeus Natalis: An Early 'Thomist' on the Notion of Being," *Mediaeval Studies* 22 (1960) 1–14.

Alliney, Guido. "Fra Scoto e Ockham: Giovanni di Reading e il dibattito sulla libertà a Oxford (1310–1320)," *Documenti e studi sulla tradizione filosofica medievale* 7 (1996) 243–68.

"'Tempus naturae' e 'tempus mathematicum' in Nicola Bonet," in A. Cacciotti and P. Sella (eds.) *Revirescunt chartae codices documenta textus: miscellanea in honorem P. Caesaris Cenci OFM*, vol. II (Rome: Edizioni Antonianum, 2002) 1089–113.

Time and Soul in Fourteenth-Century Theology: Three Questions of William of Alnwick on the Existence, the Ontological Status and the Unity of Time (Florence: Olschki, 2002).

Alonso, Manuel. *Teología de Averroes: estudios y documentos* (Madrid: Consejo Superior de Investigaciones Científicas, 1947).

al-Alousi, Husām Muhī al-Dīn. *The Problem of Creation in Islamic Thought* (Baghdad: National Printing and Publishing Co., 1968).

Altmann, Alexander. "Creation and Emanation in Isaac Israeli: A Reappraisal," in I. Twersky (ed.) *Studies in Medieval Jewish History and Literature* (Cambridge, MA: Harvard University Press, 1979) 1–15.

"Ibn Bajja on Man's Ultimate Felicity," in S. Lieberman (ed.) *Harry Austryn Wolfson Jubilee Volume on the Occasion of his Seventy-Fifth Birthday*, vol. I (Jerusalem: American Academy for Jewish Research, 1965) 47–87.

Studies in Religious Philosophy and Mysticism (Ithaca, NY: Cornell University Press, 1969).

Amerini, Fabrizio. "Alessandro di Alessandria sulla natura degli accidenti," *Documenti e studi sulla tradizione filosofica medievale* 16 (2005) 179–235.

"La dottrina della significatio di Francesco da Prato O. P. (XIV secolo). Una critica tomista a Guglielmo di Ockham," *Documenti e studi sulla tradizione filosofica medievale* 11 (2000) 375–408.

"Thomas Aquinas, Alexander of Alexandria and Paul of Venice on the Nature of Essence," *Documenti e studi sulla tradizione filosofica medievale* 15 (2004) 541–91.

"What is Real? A Reply to Ockham's Ontological Program," *Vivarium* 43 (2005) 187–212.

Aminrazavi, Mehdi. *Suhrawardi and the School of Illumination* (Richmond, UK: Curzon, 1997).

Anawati, Georges. "La doctrine des accidents chez les penseurs musulmans d'après le commentaire du K. al-Mawaqif de Iji par Jurjani," in *Dirāsāt falsafiyya muhdāt ilā al-duktūr Ibrāhīm Madkūr* (Cairo: al-Hayah al-Misrīyah al-ʿĀmmah lil-Kitāb, 1974) 91–120.

Anawati, Georges *et al.* (eds.). *Muʾallafāt Ibn Rushd (Bibliographie d'Averroes)* (al-Jazāʾir: Jāmiʿat al-Duwal al-ʿArabīya, 1978).

Anciaux, Paul. *La théologie du sacrament de pénitence au XIIᵉ siècle* (Leuven: Nauwelaerts, 1949).

André, G. S. "Les *Quodlibeta* de Bernard de Trilia," *Gregorianum* 2 (1921) 226–65.

Andrews, Robert. "Andrew of Cornwall and the Reception of Modism in England," in S. Ebbesen and R. L. Friedman (eds.) *Medieval Analyses in Language and Cognition* (Copenhagen: Reitzels, 1999) 105–15.

"Denomination in Peter of Auvergne," in N. Kretzmann (ed.) *Meaning and Inference in Medieval Philosophy: Studies in Memory of Jan Pinborg* (Dordrecht: Kluwer, 1988) 91–106.

"Thomas Maulevelt's Denial of Substance," in L. Newton (ed.) *Medieval Commentaries on Aristotle's* Categories (Leiden: Brill, 2008) 347–68.

Andrews, Robert and Timothy B. Noone. "A Newly Identified Redaction of Richard Clive's 'Quaestiones metaphysicae': With Edition of Three Questions on Relation," *Manuscripta* 38 (1994) 23–41.

Andrieu-Guitrancourt, Pierre. *L'archevêque Eudes Rigaud et la vie de l'église au 13ᵉ siècle* (Paris: Sirey, 1938).

Angelopoulos, Athanasios. *Nikolaos Kabasilas Hamaetos, he zoe kai to ergon autou* (Thessaloniki: Patriarchikon Hidryma Paterikon Meleton, 1970).

Arberry, A. J. *The Koran Interpreted* (London: Macmillan, 1955).

Arbesmann, Rudolph. "The Concept of '*Christus medicus*' in St. Augustine," *Traditio* 10 (1954) 1–28.

Ariew, Roger. "Cartesian Empiricism," *Revue roumaine de philosophie* 50 (2006) 71–85.

Descartes and the Last Scholastics (Ithaca, NY: Cornell University Press, 1999).

"Oratorians and the Teaching of Cartesian Philosophy in Seventeenth-Century France," *History of Universities* 17 (2001–2) 47–80.

Ariew, Roger, John Cottingham, and Tom Sorell (trs.). *Cambridge Texts in Context: Descartes' Meditations* (Cambridge: Cambridge University Press, 1998).

Arikha, Noga. *Passions and Tempers: A History of the Humours* (New York: Ecco, 2007).

Arjomand, Said Amir. *The Shadow of God and the Hidden Imam: Religion, Political Order, and Societal Change in Shiʿite Iran from the Beginning to 1890* (Chicago: University of Chicago Press, 1984).

Arkoun, Mohammed. *Contribution à l'étude de l'humanisme arabe au IVᵉ/Xᵉ siècle: Miskawayh, philosophe et historien*, 2nd edn (Paris: Vrin, 1982).

Armstrong, Regis *et al.* (eds.). *Francis of Assisi. Early Documents* (Hyde Park, NY: New City Press, 1999).

Arnaldez, Roger. *Averroes: A Rationalist in Islam*, tr. D. Streight (Notre Dame, IN: University of Notre Dame Press, 2000).

Grammaire et théologie chez Ibn Hazm de Cordoue: essai sur la structure et les conditions de la pensée musulmane (Paris: Vrin, 1984).

Arquillière, Henri Xavier. *L'augustinisme politique: essai sur la formation des théories politiques du Moyen-Age*, 2nd edn (Paris: Vrin, 1955).

al-Aʿsam, ʿAbd al-Amīr. *History of Ibn ar-Riwandi the Heretic* (Beirut: Manshūrāt Dār al-Afāq al-Jadīdah, 1975).

Ashworth, E. Jennifer. "Analogy and Equivocation in Thirteenth-Century Logic: Aquinas in Context," *Mediaeval Studies* 54 (1992) 94–135.

"'Can I Speak More Clearly Than I Understand?' A Problem of Religious Language in Henry of Ghent, Duns Scotus, and Ockham," *Historiographia Linguistica* 7 (1980) 29–38.

"An Early Fifteenth Century Discussion of Infinite Sets," *Notre Dame Journal of Formal Logic* 18 (1977) 232–4.

"English *Obligationes* Texts after Roger Swyneshed: The Tracts Beginning *Obligatio est quaedam ars*," in O. P. Lewry (ed.) *The Rise of British Logic* (Toronto: Pontifical Institute of Mediaeval Studies, 1983) 309–33.

Language and Logic in the Post-Medieval Period (Dordrecht: Reidel, 1974).

"Medieval Theories of Singular Terms," in E. Zalta (ed.) *The Stanford Encyclopedia of Philosophy* (Fall 2006 edition): http://plato.stanford.edu/archives/fall2006/entries/singular-terms-medieval/.

"Mental Language and the Unity of Propositions: A Semantic Problem Discussed by Early Sixteenth-Century Logicians," *Franciscan Studies* 41 (1981) 61–96.

"Ralph Strode on Inconsistency in Obligational Disputations," in K. Jacobi (ed.) *Argumentationstheorie. Scholastische Forschungen zu den logischen und semantischen Regeln korrekten Folgerns* (Leiden: Brill, 1993) 363–86.

"Signification and Modes of Signifying in Thirteenth-Century Logic: A Preface to Aquinas on Analogy," *Medieval Philosophy and Theology* 1 (1991) 39–67.

Studies in Post-Medieval Semantics (London: Variorum Reprints, 1985).

"Theories of Propositions: Some Early Sixteenth-Century Discussions," *Franciscan Studies* 38 (1978) 81–121.

The Tradition of Medieval Logic and Speculative Grammar from Anselm to the End of the Seventeenth Century. A Bibliography from 1836 Onwards (Toronto: Pontifical Institute of Mediaeval Studies, 1978).

Ashworth, E. Jennifer and Paul Vincent Spade. "Logic in Late Medieval Oxford," in J. I. Catto and R. Evans (eds.) *The History of the University of Oxford*, vol. II: *Late Medieval Oxford* (Oxford: Clarendon Press, 1992) 35–64.

Asín Palacios, Miguel. *The Mystical Philosophy of Ibn Masarra and his Followers*, tr. E. H. Douglas and H. W. Yoder (Leiden: Brill, 1978).

Association des amis du Centre médiéval européen de Chartres (ed.). *Enseigner le Moyen Age à partir d'un monument, la cathédrale de Chartres: le temps de Fulbert* (Chartres: Société archéologique d'Eure-et-Loir, 1996).

Association Bourguignonne des Sociétés Savantes. *Saint Bernard théologien: actes du Congres de Dijon*, 2nd edn (Rome: Editiones Cistercienses, 1956).

Azanza Elío, Ana. *El conocimiento de Dios según Pedro de Atarrabia* (Pamplona: Ediciones Eunate, 1997).

al-Azmeh, Aziz. *Ibn Khaldūn: An Essay in Reinterpretation* (London: Routledge, 1990).

Ibn Khaldūn in Modern Scholarship: A Study in Orientalism (London: Third World Centre, 1981).

Babbitt, Susan M. *Oresme's Livre de Politiques and the France of Charles V* (Philadelphia, PA: American Philosophical Society, 1985).

Bachrach, David. *Religion and the Conduct of War c. 300–1215* (Woodbridge: Boydell Press, 2003).

Bäck, Allan. *On Reduplication: Logical Theories of Qualification* (Leiden: Brill, 1996).

Back, Samuel. *Joseph Albo's Bedeutung in der Geschichte der jüdischen Religionsphilosophie: ein Beitrag zur genauern Kenntniss der Tendenz des Buches "IKKARIM"* (Breslau: Heidenfeld, 1869).

Backes, Ignaz. *Die Christologie, Soteriologie und Mariologie des Ulrich von Strassburg: ein Beitrag zur Geistegeschichte des 13. Jahrhunderts* (Trier: Paulinus-Verlag, 1975).

Backus, Irene (ed.). *The Reception of the Church Fathers in the West: From the Carolingians to the Maurists* (Leiden: Brill, 1997).

Baer, Yitzhak. "Abner of Burgos' *Minhat Qena'ot* and its Influence on Hasdai Crescas," *Tarbiz* 11 (1940) 188–206.

Baeumker, Clemens. *Die Stellung des Alfred von Sareshel (Alfredus Anglicus) und seiner Schrift* De motu cordis *in der Wissenschaft des beginnenden XIII. Jahrhunderts* (Munich: Königlich Bayerischen Akademie der Wissenschaften, 1913).

  Witelo: ein Philosoph und Naturforscher des dreizehnten Jahrhunderts (Münster: Aschendorff, 1908; repr. 1991).

  "Zur Frage nach Abfassungszeit und Verfasser des irrtümlich Witelo zugeschriebenen *Liber de intelligentiis*," in *Miscellanea Francesco Ehrle* (Rome: Biblioteca Apostolica Vaticana, 1924) I: 87–202.

Bainton, Roland. *Christian Attitudes toward War and Peace* (Nashville, TN: Abingdon Press, 1960).

Bakker, Paul J. J. M. "Aristotelian Metaphysics and Eucharistic Theology: John Buridan and Marsilius of Inghen on the Ontological Status of Accidental Being," in J. M. M. H. Thijssen and J. Zupko (eds.) *The Metaphysics and Natural Philosophy of John Buridan* (Leiden: Brill, 2001) 247–64.

  "Guiral Ot et le mouvement autour de la question *De motu* conservée dans le manuscrit Madrid, Biblioteca nacional, 4229," *Early Science and Medicine* 8 (2003) 298–319.

  La raison et le miracle: les doctrines eucharistiques (c. 1250–c. 1400). Contribution à l'étude des rapports entre philosophie et théologie (Nijmegen: Katholieke Universiteit Nijmegen, 1999).

  "Réalisme et rémanence: La doctrine eucharistique de Jean Wyclif," in M.-T. Fumagalli, Beonio Brocchieri and S. Simonetta (eds.) *John Wyclif: logica, teologia, politica* (Florence: SISMEL, Edizioni del Galluzzo, 2003) 87–112.

Bakker, Paul J. J. M. and D.-J. Dekker. "Antoine Andrée ou Jean le Chanoine? À propos de l'authenticité du commentaire de la *Physique* conservé dans le ms. Cambridge, Gonville & Caius College, 368 (590)," *Bulletin de philosophie médiévale* 42 (2000) 101–31.

Baldwin, John. *Masters, Princes and Merchants: The Social Views of Peter the Chanter and his Circle* (Princeton, NJ: Princeton University Press, 1970).

Baltes, Matthias. *Die Weltentstehung des platonischen Timaios nach den Antiken interpreten* (Leiden: Brill, 1976–8).

Barad, Judith. "Aquinas on the Role of Emotion in Moral Judgement and Activity," in B. C. Bazán *et al.* (eds.) *Les philosophies morales et politiques au Moyen Âge*, vol. II (New York: Legas, 1995) 642–53.

Barber, Charles. "Living Painting, or the Limits of Pointing? Glancing at Icons with Michael Psellos," in C. Barber and D. Jenkins (eds.) *Reading Michael Psellos* (Leiden: Brill, 2006) 117–30.

Barber, Charles and David Jenkins (eds.). *Reading Michael Psellos* (Leiden: Brill, 2006).

Barbet, Jeanne. "Le commentaire des Sentences de Jean de Rodington, O.F.M. (†1348) d'après les manuscrits Reims 503 et Toulouse 192," *Bulletin d'information de l'Institut de recherche et d'histoire des textes* 3 (1954) 55–63.

Barbour, Hugh Christopher. *The Byzantine Thomism of George Gennadios Scholarios and his Translation of Armandus de Bellovise on the* De Ente et Essentia *of Thomas Aquinas* (Vatican: Libreria Editrice Vaticana, 1993).

Barker, Ernest. *Social and Political Thought in Byzantium: From Justinian I to the Last Palaeologus* (Oxford: Clarendon Press, 1957).

Barnes, Jonathan. "The Just War," in N. Kretzmann *et al.* (eds.) *Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 771–84.

Barocelli, Francesco. "Per Biagio Pelacani, un Convegno e un 'Centro Studi'," in G. Federici Vescovini (ed.) *Filosofia, scienza e astrologia nel Trecento europeo* (Padua: Il Poligrafo, 1992) 21–38.

Baron, Roger. *Études sur Hugues de Saint-Victor* (Paris: De Brouwer, 1963).

  Science et sagesse chez Hugues de Saint-Victor (Paris: Lethielleux, 1957).

Barton, J. L. "The Mystery of Bracton," *Journal of Legal History* 14 (1993) 1–42.

Bashier, Salman. *Ibn al'Arabī's Barzakh: The Concept of the Limit and the Relationship between God and the World* (Albany: State University of New York Press, 2004).

Bataillon, Louis J., Gilbert Dahan, and Pierre-Marie Gy (eds.). *Hugues de Saint-Cher (†1263): Bibliste et théologien* (Turnhout: Brepols, 2004).

Baudelet, Yves-Anselme. *L'expérience spirituelle selon Guillaume de Saint-Thierry* (Paris: Cerf, 1985).

Baumgartner, Matthias. *Die Erkenntnislehre des Wilhelm von Auvergne* (Münster: Aschendorff, 1893).

Bautz, Friedrich (ed.). *Biographisch-Bibliographisches Kirchenlexikon* (Herzberg: Bautz, 1970–2007).

Bazán, Bernardo C. "13th-Century Commentaries on *De anima*: From Peter of Spain to Thomas Aquinas," in G. Fioravanti *et al.* (eds.) *Il commento filosofico nell'Occidente latino, secoli XIII–XV* (Turnhout: Brepols, 2002) 119–84.

  "The Human Soul: Form *and* Substance? Thomas Aquinas's Critique of Eclectic Aristotelianism," *Archives d'histoire doctrinale et littéraire du moyen âge* 64 (1997) 95–126.

Beale, Joseph. *Bartolus on the Conflict of Laws* (Cambridge, MA: Harvard University Press, 1914; repr. Westport, CT: Hyperion Press, 1979).

Beck, Hans Georg. *Theodoros Metochites, die Krise des byzantinischen Weltbildes im 14. Jahrhundert* (Munich: Beck, 1952).

Becker, Adam. *Fear of God and the Beginning of Wisdom. The School of Nisibis and Christian Scholastic Culture in Late Antique Mesopotamia* (Philadelphia, PA: University of Pennsylvania Press, 2006).

Beckmann, Jan. *Ockham-Bibliographie: 1900–1990* (Hamburg: Meiner, 1992).

Beckwith, Sarah. *Christ's Body: Identity, Culture, and Society in Late Medieval Writings* (London: Routledge, 1993).

Bedouelle, Guy, Romanus Cessario, and Kevin White (eds.). *Jean Capreolus et son temps 1380–1444* (Paris: Cerf, 1997).

Beer, Samuel. "The Rule of the Wise and the Holy: Hierarchy in the Thomistic System," *Political Theory* 14 (1984) 391–422.

Beggiani, Seely J. "Theology at the Service of Mysticism: Method in Pseudo-Dionysius," *Theological Studies* 57 (1996) 201–23.

Beha, H. M. "Matthew of Aquasparta's Theory of Cognition," *Franciscan Studies* 20 (1960) 161–204; 21 (1961) 383–465.

Behloul, Samuel-Martin. *Ibn Hazms Evangelienkritik: eine methodische Untersuchung* (Leiden: Brill, 2002).

Beierwaltes, Werner (ed.). *Begriff und Metapher: Sprachform des Denkens bei Eriugena* (Heidelberg: Carl Winter Universitätsverlag, 1990).

    Eriugena: Grundzüge seines Denkens (Frankfurt am Main: Klostermann, 1994).

Beitz, Egid. *Rupert von Deutz: seine Werke und die bildende Kunst* (Cologne: Verlag des kölnischen Geschichtsvereins, 1930).

Bejczy, István Pieter. "Two Questions of Stephen Langton on the Cardinal Virtues," *Medioevo* 31 (2006) 299–336.

Bejczy, István Pieter and Richard Newhauser (eds.). *Virtue and Ethics in the Twelfth Century* (Leiden: Brill, 2005).

Bell, David. *The Image and Likeness: The Augustinian Spirituality of William of St Thierry* (Kalamazoo, MI: Cistercian Publications, 1984).

Bell, Joseph N. *Love Theory in Later Hanbalite Islam* (Albany: State University of New York Press, 1979).

Belmond, Séraphin. "La théorie de la connaissance d'après Roger Marston," *La France Franciscaine* 17 (1934) 153–87.

Belo, Catarina. *Chance and Determinism in Avicenna and Averroes* (Leiden: Brill, 2007).

Benakis, Linos. "Bibliographie internationale sur la philosophie Byzantine (1949–1990)," in *Bibliographie Byzantine publié à l'occasion du XVIIIe Congrès Internationale d'Études Byzantines* (Athens: Comité hellénique des études byzantines, 1991) 319–77.

    "Michael Psellos' Kritik an Aristoteles und seine eigene Lehre zur Physis- und Materie-Form-Problematik," *Byzantinische Zeitschrift* 56 (1963) 213–27.

    "The Problem of General Concepts in Neoplatonism and Byzantine Thought," in D. J. O'Meara (ed.) *Neoplatonism and Christian Thought* (Albany: State University of New York Press, 1982) 75–86 and 248–9.

    "Studien zu den Aristoteles-Kommentaren des Michael Psellos," *Archiv für Geschichte der Philosophie* 43 (1961) 215–38; 44 (1962) 33–61.

    "Die theoretische und praktische Autonomie der Philosophie als Fachdisziplin in Byzanz," in M. Asztalos *et al.* (eds.) *Knowledge and the Sciences in Medieval Philosophy: Proceedings of the Eighth International Congress of Medieval Philosophy* (Helsinki: Yliopistopaino, 1990) I: 223–7.

Bergé, Marc. *Pour un humanisme vécu: Abu Hayyan al-Tawhidi* (Damascus: Institut français de Damas, 1979).

Berger, Harald. "Albert von Sachsen (1316?–1390). Bibliographie der Sekundärlitteratur," *Bulletin de philosophie médiévale* 36 (1994) 148–85; 37 (1995) 175–86; 38 (1996) 143–52; 40 (1998) 103–16.

Bergsträsser, Gotthelf. *Hunain ibn Ishak und seine Schule: Sprach- und literargeschichtliche untersuchungen zu den arabischen Hippokrates- und Galen-übersetzungen* (Leiden: Brill, 1913).

Berkowitz, Luci and Karl A. Squitier (eds.). *Thesaurus Linguae Graecae: Canon of Greek Authors and Works*, 3rd edn (Oxford: Oxford University Press, 1990).

Berlioz, Jacques and Marie Anne Polo de Beaulieu. *Les exempla médiévaux: nouvelles perspectives* (Paris: Champion, 1998).

Bermon, Pascale. *L'assentiment et son objet chez Grégoire de Rimini* (Paris: Vrin, 2007).

Bernard, Paul. "Jerome of Prague, Austria and the Hussites," *Church History* 35 (1958) 3–22.

Bernards, Mathäus. "Zum Schrifttum des Petrus von Aquila OFM († 1361)," *Franziskanische Studien* 35 (1953) 113–15.

Bertagna, Mario. "Richard Ferrybridge's *Logica*: A Handbook for Solving Sophismata," in S. Read (ed.) *Sophisms in Medieval Logic and Grammar: Acts of the Ninth European Symposium for Medieval Logic and Semantics* (Dordrecht: Kluwer, 1993) 31–44.

Bertola, Ermenegildo. "La dottrina dell'immortalità dell'anima in Johannes Blundus," *Aquinas* 9 (1966) 28–48.

Bertolacci, Amos. "A Community of Translators: The Latin Medieval Versions of Avicenna's *kitāb al-Shifā' (Book of the Cure),*" in C. Mews and J. Crossley (eds.) *Communities of Learning, Religious Diversity, and the Written Record 1085–1453* (forthcoming).

Bérubé, Camille. "Antoine André, témoin et interprète de Duns Scot." *Antonianum* 54 (1979) 385–466.

  "Henri de Gand et Mathieu d'Aquasparta interprètes de saint Bonaventure," *Naturaleza y gracia* 21 (1974) 131–72.

Bérubé, Camille and Servus Gieben. "Guibert de Tournai et Robert Grosseteste: sources inconnues de la doctrine de l'illumination suivi de l'édition critique de trois chapitres du *Rudimentum doctrinae* de Guibert de Tournai," in *Sanctus Bonaventura: 1274–1974* (Grottaferrata: Collegium Sancti Bonaventurae, 1973) 627–54.

Besnier, Bernard, Pierre-François Moreau, and Laurence Renault (eds.). *Les passions antiques et médiévales* (Paris: Presses universitaires de France, 2003).

Besta, Enrico. *L'opera d'Irnerio: contributo alla storia del diritto italiano* (Turin: Loescher, 1896).

Bettoni, Efrem. *Le dottrina filosofiche di Pier di Giovanni Olivi* (Milan: Vita e Pensiero, 1959).

Betts, Edward Tracy. *Humbert of Romans: His Life and Views of Thirteenth-Century Society* (Toronto: Pontifical Institute of Medieval Studies, 1984).

Betts, R. R. "Jerome of Prague," in *Essays in Czech History* (London: Athlone, 1969) 195–235.

Bianchi, Luca. *Censure et liberté intellectuelle à l'Université de Paris (XIIIᵉ–XIVᵉ siècles)* (Paris: Les Belles Lettres, 1999).

  Il vescovo e i filosofi. La condanna Parigina del 1277 e l'evoluzione dell'aristotelismo scolastico (Bergamo: Pierluigi Lubrina Editore, 1990).

Biard, Joël. "Les controverses sur l'objet du savoir et les 'complexe significabilia' à Paris au XIVᵉ siècle," in S. Caroti (ed.) *Quia inter doctores est magna dissensio: les débats de philosophie naturelle à Paris au XIVᵉ siècle* (Florence: Olschki, 2004) 1–31.

  Guillaume d'Ockham: Logique et philosophie (Paris: Presses universitaires des France, 1997).

  Guillaume d'Ockham et la théologie (Paris: Cerf, 1999).

  Logique et théorie du signe au XIVᵉ siècle (Paris: Vrin, 1989).

  "The Natural Order in John Buridan," in J. M. M. H. Thijssen and J. Zupko (eds.) *The Metaphysics and Natural Philosophy of John Buridan* (Leiden: Brill, 2001) 77–95.

  (ed.). *Paris–Vienne au XIVe siècle. Itinéraires d'Albert de Saxe* (Actes de la Table ronde internationale, Paris, 19–22 juin 1990) (Paris: Vrin, 1991).

  "Présence et représentation chez Pierre d'Ailly: quelques problèmes de théorie de la connaissance au XIVe siècle," *Dialogue* 31 (1992) 459–74.

  "La signification d'objets imaginaires dans quelques texts anglais du XIVe siècle (Guillaume Heytesbury, Henry Hopton)," in O. Lewry (ed.) *The Rise of British Logic* (Toronto: Pontifical Institute of Mediaeval Studies, 1983) 265–83.

Biblioteca civica Gambalunga. *Gregorio da Rimini filosofo: atti del convegno* (Rimini: Raffaelli, 2003).

Bignami-Odier, Jeanne. "Le manuscrit Vatican latin 2186," *Archives d'histoire doctrinale et littéraire du moyen âge* 11 (1938) 133–66.

Biller, Peter. *The Measure of Multitude: Population in Medieval Thought* (Oxford: Oxford University Press, 2000).

Biller, Peter and A. J. Minnis. *Handling Sin: Confession in the Middle Ages* (Woodbridge, UK: York Medieval Press, 1998).

Birk, Bonnie A. *Christine de Pizan and Biblical Wisdom: A Feminist-Theological Point of View* (Milwaukee, WI: Marquette University Press, 2005).

Birkenmajer, Aleksander. "Avicennas Vorrede zum 'Liber Sufficientiae' und Roger Bacon," in A. Birkenmajer (ed.) *Études d'histoire des sciences et de la philosophie du moyen âge* (Wroclaw: Zakład Narodowy im. Ossolińskich, 1970) 89–101.

"Études sur Witelo, I–IV," *Bulletin international de l'Académie polonaise des sciences et des lettres, Classe d'histoire et de philosophie* année 1918 (1920) 4–6; année 1919–20 (1922–4) 354–60; année 1922 (1925) 6–9.

Bissen, Jean-Marie. "Question inédite de Guillaume de Ware, OFM, sur le motif de l'incarnation," *Études Franciscaines* 46 (1934) 218–22.

Black, Antony. *The History of Islamic Political Thought: From the Prophet to the Present* (London: Routledge, 2001).

Political Thought in Europe, 1250–1450 (Cambridge: Cambridge University Press, 1992).

"Society and the Individual from the Middle Ages to Rousseau: Philosophy, Jurisprudence and Constitutional Theory," *History of Political Thought* 1 (1980) 145–66.

The West and Islam: Religion and Political Thought in World History (Oxford: Oxford University Press, 2008).

Black, Deborah L. "Avicenna on Self-Awareness and Knowing that One Knows," in S. Rahman et al. (eds.) *The Unity of Science in the Arabic Tradition*: *Science, Logic, Epistemology and their Interactions* (Dordrecht: Springer, 2008) 63–87.

"Estimation (*Wahm*) in Avicenna: The Logical and Psychological Dimensions," *Dialogue* 32 (1993) 219–58.

"Imagination and Estimation: Arabic Paradigms and Western Transformations," *Topoi* 19 (2000) 59–75.

"Knowledge (*'ilm*) and Certitude (*yaqīn*) in al-Fārābī's Epistemology," *Arabic Sciences and Philosophy* 16 (2006) 11–45.

Blanchet, Léon. *Les antécédents historiques du "Je pense, donc je suis"* (Paris: Alcan, 1920).

Bleich, J. David. "Providence in the Philosophy of Hasdai Crescas and Joseph Albo," in Y. Elman and J. S. Gurock (eds.) *Hazon Nahum: Studies in Jewish Law, Thought, and History Presented to Dr. Norman Lamm* (New York: Yeshiva University Press, 1997) 311–58.

Bliemetzrieder, Franz. "Autour de l'œuvre théologique d'Anselme de Laon," *Recherches de théologie ancienne et médiévale* 1 (1929) 434–83.

Blomme, Robert. *La doctrine du péché dans les écoles théologiques de la premiere moitié du XIIᵉ siècle* (Leuven: Publications universitaires, 1958).

Bloomfield, Morton. *The Seven Deadly Sins: An Introduction to the History of a Religious Concept* (East Lansing, MI: Michigan State College Press, 1952).

Blumenthal, David. "On the Intellect and the Rational Soul," *Journal of the History of Philosophy* 15 (1977) 207–11.

Blythe, James. "Aristotle's *Politics* and Ptolemy of Lucca," *Vivarium* 40 (2002) 103–36.

Bobik, Joseph. *Aquinas on Matter and Form and the Elements* (Notre Dame, IN: University of Notre Dame Press, 1998).

Boehner, Philotheus. *Medieval Logic: An Outline of its Development from 1250–c. 1400* (Manchester: Manchester University Press, 1952).

"*Notitia Intuitiva* of Non Existents According to Peter Aureoli, O.F.M. (1322)," *Franciscan Studies* 8 (1948) 388–416.

"The System of Metaphysics of Alexander of Hales," *Franciscan Studies* 5 (1945) 366–414.

Boh, Ivan. "Consequences," in N. Kretzmann et al. (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 300–14.

"Epistemic and Alethic Iteration in Later Medieval Logic," *Philosophia naturalis* 21 (1984) 492–506.

Epistemic Logic in the Middle Ages (London: Routledge, 1993).

"Paul of Pergula on Suppositions and Consequences," *Franciscan Studies* 25 (1965) 30–89.

Bohn, Eva. "Candidus and the Continuity of Carolingian Intellectual Life after Alcuin" (Ph.D. dissertation: University of Cambridge, 2004).

Bohne, Winfried (ed.). *Hrabanus Maurus und seine Schule* (Fulda: Rabanus-Maurus-Schule, 1980).

Boissonade, Jean François. *Anecdota graeca* (Paris, 1833; repr. Hildesheim: Olms, 1962).

Anecdota nova (Paris, 1844; repr. Hildesheim: Olms, 1962).

Boland, Vivian. *Ideas in God According to Saint Thomas Aquinas: Sources and Synthesis* (Leiden: Brill, 1996).

Bolland, Johannes, Jean Baptiste Carnandet, Godefridus Henschenius, and Daniel von Papenbroeck (eds.) *Acta sanctorum quotquot toto orbe coluntur vel a catholicis scriptoribus celebrantur* (Paris: Palme, 1863–1940).

Bolton, Brenda. *Innocent III: Studies on Papal Authority and Pastoral Care* (Aldershot: Variorum, 1995).

Bonin, Therese. *Creation as Emanation. The Origin of Diversity in Albert the Great's* On the Causes and the Procession of the Universe (Notre Dame, IN: University of Notre Dame Press, 2001).

Borchert, Ernst. *Die Trinitätslehre des Johannes de Ripa* (Munich: Schöningh, 1974).

Borst, Arno. "Ein Forschungsbericht Hermanns des Lahmen," *Deutsches Archiv* 40 (1984) 379–477.

Bos, E. P. "An Anonymous Commentary on the Second Part of Alexander de Villa Dei's Doctrinale (circa 1400)," in M. C. Pacheco and J. F. Meirinhos (eds.) *Intellect et imagination dans la philosophie médiévale: actes du XIe Congrès international de philosophie médiévale de la Société internationale pour l'étude de la philosophie médiévale* (Turnhout: Brepols, 2006) 1743–56.

Logica modernorum in Prague about 1400: The Sophistria Disputation "Quoniam quatuor" with a Partial Reconstruction of Thomas of Cleves' Logica (Leiden: Brill, 2004).

"Peter of Mantua and his Rejection of *Ampliatio* and *Restrictio*," in O. Lewry (ed.) *The Rise of British Logic* (Toronto: Pontifical Institute of Mediaeval Studies, 1983) 384–99.

"Peter of Mantua's Tract on *appellatio* and his Interpretation of Immanent Forms," in A. Maierù (ed.) *English Logic in Italy in the 14th and 15th Centuries* (Naples: Bibliopolis, 1982) 231–52.

"Peter of Mantua's Treatise *De veritate et falsitate, sive De taliter et qualiter*," in E. P. Bos (ed.) *Medieval Semantics and Metaphysics. Studies Dedicated to L. M. de Rijk* (Nijmegen: Artistarium, 1985) 291–307.

"Die Rezeption der *Suppositiones* des Marsilius von Inghen in Paris (Johannes Dorp) und Prag (ein anonymer *Sophistria* Traktat) um 1400," in M. J. F. M. Hoenen and P. J. J. M. Bakker (eds.) *Philosophie und Theologie des ausgehenden Mittelalters: Marsilius von Inghen und das Denken seiner Zeit* (Leiden: Brill, 2000) 213–38.

"Richard Billingham's Logic in his Mirror of the Youngsters," in F. Beets and M.-A. Gavray (eds.) *Logique et ontologie: perspectives diachroniques et synchroniques* (Liège: Éditions Université de Liège, 2005) 73–94.

"Richard Billingham's *Speculum puerorum*, Some Medieval Commentaries and Aristotle," *Vivarium* 45 (2007) 360–73.

"Thuo of Viborg and Marsilius of Inghen," in S. Ebbesen and R. L. Friedman (eds.) *Medieval Analyses in Language and Cognition* (Copenhagen: Reitzels, 1999) 523–39.

"Towards a Logic of Fiction: Ludolph Meistermann of Lübeck," in J. A. Aertsen and A. Speer (eds.) *Was ist Philosophie im Mittelalter?* (*Miscellanea Mediaevalia* 26) (Berlin: De Gruyter, 1998) 809–17.

Bos, Gerrit and Charles Burnett. *Scientific Weather Forecasting in the Middle Ages: The Writings of al-Kindi* (London: Kegan Paul, 2000).

Bosdari, Filippo. *Giovanni da Legnano, canonista e uomo politico del 1300* (Bologna, 1901).

Bosl, Karl. "*Potens und Pauper*," in A. Bergengruen and L. Deike (eds.) *Alteuropa und die Moderne Gesellschaft: Festschrift für Otto Brunner* (Göttingen: Vandenhoeck und Ruprecht, 1963) 60–87.

Bosley, Richard and Martin Tweedale (eds.). *Basic Issues in Medieval Philosophy: Selected Readings Presenting the Interactive Discourses among Major Figures*, 2nd edn (Peterborough, Ont.: Broadview Press, 2006).

Bossier, Fernand. "L'élaboration du vocabulaire philosophique chez Burgundio de Pise," in J. Hamesse (ed.) *Aux origines du lexique philosophique européen* (Louvain-la-Neuve: Fédération internationale des instituts d'études médiévales, 1997) 81–116.

Bossy, John. "Moral Arithmetic: Seven Sins into Ten Commandments," in E. Leites (ed.) *Conscience and Casuistry in Early Modern Europe* (Cambridge: Cambridge University Press, 1988) 214–34.

Bottin, Francesco. "Gaetano da Thiene e i 'calculatores'," in A. Poppi (ed.) *Scienza e filosofia all'Università di Padova nel Quattrocento* (Padua: Edizioni LINT, 1983) 125–34.

"Logica e filosofia naturale nelle opere di Paolo Veneto," in A. Poppi (ed.) *Scienza e filosofia all'Università di Padova nel Quattrocento* (Padua: Edizioni LINT, 1983) 85–124.

Bougerol, Jacques Guy. "The Church Fathers and the *Sentences* of Peter Lombard," in I. Backus (ed.) *The Reception of the Church Fathers in the West: From the Carolingians to the Maurists* (Leiden: Brill, 1997) I: 113–64.

Introduction à l'étude de saint Bonaventure (Paris: Vrin, 1988).

Introduction to the Works of Bonaventure, tr. J. de Vinck (Patterson, NJ: St. Anthony Guild Press, 1964).

"Jean de la Rochelle – les œuvres et les manuscrits," *Archivum Franciscanum Historicum* 87 (1994) 205–15.

Bouhot, Jean Paul. *Ratramne de Corbie: histoire littéraire et controverses doctrinales* (Paris: Études Augustiniennes, 1976).

Boulnois, Olivier. "Le besoin de métaphysique. Théologie et structure des métaphysiques médiévales," in J.-L. Solère and Z. Kaluza (eds.) *La servante et la consolatrice: la philosophie dans ses rapports avec la théologie au Moyen Âge* (Paris: Vrin, 2002) 45–94.

"Duns Scot: existe-t-il des passions de la volonté?," in B. Besnier *et al.* (eds.) *Les passions antiques et médiévales: theories et critiques des passions*, vol. I (Paris: Presses universitaires de France, 2003) 281–95.

Être et representation: une génealogie de la métaphysique moderne à l'époque de Duns Scotus (XIIIᵉ–XIVᵉ siècle) (Paris: Presses universitaires de France, 1999).

Boureau, Alain. *Théologie, science et censure au XIIIᵉ siècle: le cas de Jean Peckham* (Paris: Les Belles Lettres, 1999).

Boureau, Alain and Sylvain Piron. *Pierre de Jean Olivi (1248–1298): pensée scolastique, dissidence spirituelle et société* (Paris: Vrin, 1999).

Bouvy, Jean. "La necessité de la grâce dans le Commentaire des Sentences d'Odon Rigaud," *Recherches de théologie ancienne et médiévale* 28 (1961) 59–96.

"Les questions sur la grâce dans le Commentaire des Sentences d'Odon Rigaud," *Recherches de théologie ancienne et médiévale* 27 (1960) 290–343.

Bowman, Leonard. "The Development of the Doctrine of the Agent Intellect in the Franciscan School of the Thirteenth Century," *Modern Schoolman* 50 (1973) 251–79.

Boyde, Patrick. *Dante Philomythes and Philosopher: Man in the Cosmos* (Cambridge: Cambridge University Press, 1981).

Perception and Passion in Dante's Comedy (Cambridge: Cambridge University Press, 1993).

Human Vices and Human Worth in Dante's Comedy (Cambridge: Cambridge University Press, 2000).

Boyle, Leonard E. "The Fourth Lateran Council and Manuals of Popular Theology," in T. J. Hefferman (ed.) *The Popular Literature of Medieval England* (Knoxville: University of Tennessee Press, 1985) 30–43.

"The Inter-Conciliar Period 1179–1215 and the Beginnings of Pastoral Manuals," in F. Liotta (ed.) *Miscellanea, Rolando Bandinelli, Papa Alessandro III* (Siena: Accademia senese degli intronati, 1986) 45–56.

Pastoral Care, Clerical Education and Canon Law, 1200–1400 (London: Variorum, 1981).

"The *Quodlibets* of St. Thomas and Pastoral Care," *The Thomist* 38 (1974) 232–56.

"The *Summa confessorum* of John of Freiburg and the Popularization of the Moral Teaching of St. Thomas and some of his Contemporaries," in A. Maurer (ed.) *St. Thomas Aquinas, 1274–1974: Commemorative Studies* (Toronto: Pontifical Institute of Mediaeval Studies, 1974) II: 245–68.

"Summae confessorum," in R. Bultot (ed.) *Les genres littéraires dans les sources théologiques et philosophiques médiévales: définition, critique et exploration* (Louvain-la-Neuve: Université catholique de Louvain, 1982) 227–37.

"The *Summa summarum* and some Other English Works of Canon Law," in S. Kuttner and J. J. Ryan (eds.) *Proceedings of the Second International Congress of Medieval Canon Law* (Vatican: S. Congregatio de seminariis et studiorum universitatibus, 1965) 415–56.

Braakhuis, H. A. G. *Die 13de Eeuwse Tractaten over Syncategorematische Termen* (Meppel: Krips Repro, 1979).

"Convertibility of Being and One in a Sophism Attributed to Robert Kilwardby," in S. Ebbesen and R. L. Friedman (eds.) *Medieval Analyses in Language and Cognition* (Copenhagen: Reitzels, 1999) 117–38.

"English Tracts on Syncategorematic Terms from Robert Bacon to Walter Burley," in H. A. G. Braakhuis *et al.* (eds.) *English Logic and Semantics from the End of the Twelfth Century to the Time of Ockham and Burleigh* (Nijmegen: Ingenium, 1981) 131–65.

"Kilwardby vs Bacon? The Contribution to the Discussion on Univocal Signification of Beings and Non-Beings Found in a Sophism Attributed to Robert Kilwardby," in E. P. Bos (ed.) *Medieval Semantics and Metaphysics* (Nijmegen: Ingenium, 1985) 111–42.

"Paul of Pergula's Commentary on the Sophismata of William Heytesbury," in A. Maierù (ed.) *English Logic in Italy in the 14th and 15th Centuries* (Naples: Bibliopolis, 1982) 343–57.

"School Philosophy and Philosophical Schools. The Semantic-Ontological Views in the Cologne Commentaries on Peter of Spain, and the 'Wegestreit'," *Miscellanea Mediaevalia* 20 (1989) 1–18.

"The Views of William of Sherwood on some Semantical Topics and their Relation to those of Roger Bacon," *Vivarium* 15 (1977) 111–42.

Braakhuis, H. A. G. and M. J. F. M. Hoenen (eds.). *Marsilius of Inghen: Acts of the International Marsilius of Inghen Symposium* (Nijmegen: Ingenium, 1992).

Brachtendorf, Johannes. "Cicero and Augustine on the Passions," *Revue des Études Augustiniennes* 43 (1997) 289–308.

Brady, Ignatius. "John Pecham and the Background of Aquinas's *De aeternitate mundi*," in A. Maurer (ed.) *St. Thomas Aquinas (1274–1974): Commemorative Studies* (Toronto: Pontifical Institute of Mediaeval Studies, 1974) II: 11–71.

Brague, Remi (ed.). *Saint Bernard et la philosophie* (Paris: Cerf, 1993).

Brams, Jozef. *La riscoperta di Aristotele in Occidente*, tr. A. Tombolini (Milan: Jaca, 2003).

Brams, Jozef and Willy Vanhamel (eds.). *Guillaume de Moerbeke: recueil d'études à l'occasion du 700ᵉ anniversaire de sa mort (1286)* (Leuven: Leuven University Press, 1989).

Brand, Paul. "The Age of Bracton," *Proceedings of the British Academy* 89 (1996) 65–89.

Brands, Hartmut. "Referenztheorie und freie Logik im Spätmittelalter," *Philosophisches Jahrbuch* 102 (1995) 33–60.

Brennan, Mary. *A Guide to Eriugenian Studies: A Survey of Publications 1930–87* (Paris: Cerf, 1989).

Brehaut, Ernest. *An Encyclopedist of the Dark Ages, Isidore of Seville* (New York: Franklin, 1964).

Brenet, Jean-Baptiste. "Perfection de la philosophie ou philosophe parfait? Jean de Jandun lecteur d'Averroès," *Recherches de théologie et philosophie médiévales* 68 (2001) 310–48.

　　Transferts du sujet: la noétique d'Averroès selon Jean de Jandun (Paris: Vrin, 2003).

Breuning, Wilhelm. *Erhebung und Fall des Menschen nach Ulrich von Strassburg* (Trier: Paulinus-Verlag, 1959).

Bridges, Geoffrey. *Identity and Distinction in Petrus Thomae, O.F.M.* (St. Bonaventure, NY: Franciscan Institute, 1959).

Brigué, Louis. *Alger de Liège: un théologien de l'eucharistie au début du XIIe siècle* (Paris: Gabalda, 1936).

Brock, Sebastian. "From Antagonism to Assimilation. Syriac Attitudes to Greek Learning," in N. Garsoian *et al.* (eds.) *East of Byzantium: Syria and Armenia in the Formative Period* (Washington, DC: Dumbarton Oaks, Center for Byzantine Studies, Trustees for Harvard University, 1980) 17–34.

　　"The Syriac Background to Ḥunayn's Translation Techniques," *Aram* 3 (1991) 139–62.

　　"The Syriac Commentary Tradition," in C. Burnett (ed.) *Glosses and Commentaries on Aristotelian Logical Texts* (London: Warburg Institute, University of London, 1993) 3–18.

　　"A Syriac Intermediary for the Arabic Theology of Aristotle? In Search of a Chimera," in C. D'Ancona (ed.) *The Libraries of the Neoplatonists* (Leiden: Brill, 2007) 293–306.

　　Syriac Perspectives on Late Antiquity (London: Variorum Reprints, 1984).

　　"Towards a History of Syriac Translation Technique," in R. Lavenant (ed.) *Symposium Syriacum III: les contacts du monde syriaque avec les autres cultures* (Rome: Pontificium Institutum Studiorium Orientalium, 1983) 1–14.

Brock, Stephen. *Action and Conduct: Thomas Aquinas and the Theory of Action* (Edinburgh: T&T Clark, 1998).

Brooke, Christopher. *The Medieval Idea of Marriage* (Oxford: Oxford University Press, 1989).

Brooke, Rosalind B. (ed. and tr.). *Scripta Leonis, Rufini et Angeli sociorum S. Francisci: The Writings of Leo, Rufinus and Angelo, Companions of St Francis* (Oxford: Clarendon Press, 1970; corrected edn 1990).

Brosch, Hermann Josef. *Der Seinsbegriff bei Boethius mit besonderer Berücksichtigungder Beziehung von Sosein und Dasein* (Innsbruck: Felizian Rauch, 1931).

Brousseau-Beuermann, Christine. "Les Questiones de Johannes de Wolve et les Sophismata artis grammaticae du ms. Paris BNF lat. 15037," in A. de Libera and J. Jolivet (eds.) *Gilbert de Poitiers et ses contemporains, aux origines de la Logica modernorum* (Naples: Bibliopolis, 1987) 91–105.

　　"Le sophisme anonyme 'Amatus sum vel fui' du codex Parisinus BN lat. 16135," *Cahiers de l'Institut du Moyen Age Grec et Latin* 61 (1991) 147–83.

Brower, Jeffrey and Kevin Guilfoy. *The Cambridge Companion to Abelard* (Cambridge: Cambridge University Press, 2004).

Brower-Toland, Susan. "Facts vs. Things: Adam Wodeham and the Later Medieval Debate about Objects of Judgment," *Review of Metaphysics* 60 (2006) 597–642.

Brown, Barry. *Accidental Being: A Study in the Metaphysics of Thomas Aquinas* (Washington, DC: Catholic University Press of America, 1985).

Brown, D. Catherine. *Pastor and Laity in the Theology of Jean Gerson* (Cambridge: Cambridge University Press, 1987).

Brown, George H. *Bede the Educator* (Jarrow: St. Paul's Church, 1996).

　Bede, the Venerable (Boston: Twayne, 1987).

Brown, Mary Anthony. "The Role of the *Tractatus de obligationibus* in Mediaeval Logic," *Franciscan Studies* 26 (1966) 26–35.

Brown, Peter. *Augustine of Hippo* (London: Faber and Faber, 1967).

Brown, Stephen F. "Gerard of Bologna on the Nature of the Good (Text and Commentary)," in M. Pickavé (ed.) *Der Logik des Transzendentalen: Festschrift für Jan A. Aertsen zum 65. Geburtstag* (Berlin: De Gruyter, 2003) 285–303.

　"Guido Terrena and the Unity of the Concept of Being," *Documenti e studi sulla tradizione filosofica medievale* 3 (1992) 599–631.

　"Nicholas of Lyra's Critique of Scotus' Univocity," in B. Mojsisch and O. Pluta (eds.) *Historia philosophiae medii aevi: Studien zur Geschichte der Philosophie des Mittelalters: Festschrift für Kurt Flasch* (Amsterdam: Benjamins, 1991) 115–27.

　"Peter of Candia on Believing and Knowing," *Franciscan Studies* 54 (1994–7) 251–76.

　"Peter of Candia's Hundred-Year 'History' of the Theologian's Role," *Medieval Philosophy and Theology* 1 (1991) 156–90.

　"Peter of Candia's Sermons in Praise of Peter Lombard," in R. Almagno and C. Harkins (eds.) *Studies Honoring Ignatius Charles Brady, Friar Minor* (St. Bonaventure, NY: Franciscan Institute, 1976).

　"Richard Fishacre on the Need for Philosophy," in R. Salinger-Link (ed.) *A Straight Path: Studies in Medieval Philosophy and Culture – Essays in Honor of Arthur Hyman* (Washington, DC: Catholic University of America Press, 1988) 23–35.

　"Richard of Conington and the Analogy of the Concept of Being," *Franziskanische Studien* 48 (1966) 297–307.

　"Robert Cowton O.F.M. and the Analogy of the Concept of Being," *Franciscan Studies* 31 (1971) 5–40.

　"Sources for Ockham's Prologue to the *Sentences* (pt 1)," *Franciscan Studies* 26 (1966) 36–65.

Browning, Robert. "An Unpublished Funeral Oration of Anna Comnena," *Proceedings of the Cambridge Philological Society* 188 (n.s. 8) (1962) 1–12; repr. in R. Sorabji (ed.) *Aristotle Transformed* (London: Duckworth, 1990) 393–406.

Brummer, Rudolf. *Bibliographia Lulliana: Ramon-Llull-Schrifttum 1870–1973* (Hildesheim: Gerstenberg, 1976).

Brundage, James. *Law, Sex, and Christian Society in Medieval Europe* (Chicago: University of Chicago Press, 1987).

　Medieval Canon Law (London: Longman, 1995).

Brungs, Alexander. "Roland von Cremona O.P., die Geschichte des geistigen Lebens im frühen 13. Jahrhundert und die Definition der Tugend," in J. Hamesse (ed.) *Roma, magistra mundi: itineraria culturae medievalis: mélanges offerts au Père L. E. Boyle à l'occasion de son 75ᵉ anniversaire* (Louvain-la-Neuve: Fédération des instituts d'études médiévales, 1998) 27–51.

Bruni, Gerardo. "Quaestiones I–XX a fratre Aegidio Romano Paduae disputatae in Capitulo Generali O.E.S.A. 1281," *Analecta Augustiniana* 17 (1939–40) 125–50.

Brunner, Fernand. *Métaphysique d'Ibn Gabirol et de la tradition platonicienne*, ed. D. Schulthess (Aldershot: Ashgate, 1997).

　Platonisme et Aristotelisme: la critique d'Ibn Gabirol par St. Thomas d'Aquin (Leuven: Publications universitaires, 1965).

Bucichowski, Wacław. "Le principe d'individuation dans la question de Henri de Lubeck 'Utrum materia sit principium individuationis'," *Mediaevalia Philosophica Polonorum* 21 (1975) 89–113.

Buijs, Joseph A. (ed.). *Maimonides: A Collection of Critical Essays* (Notre Dame, IN: Notre Dame University Press, 1988).

Burge, Tyler. "Buridan and Epistemic Paradox," *Philosophical Studies* 34 (1978) 21–35.

Burger, Christoph. *Aedificatio, fructus, utilitas. Johannes Gerson als Professor der Theologie und Kanzler der Universität Paris* (Tübingen: Mohr, 1986).

Burie, Luc. "Proeve tot inventarisatie van de in handschrift of in druk bewaarde werken van de Leuvense theologieprofessoren uit de XVe eeuw," in E. van Eijl and A. Black (eds.) *Facultas S. Theologiae Lovaniensis, 1432–1797* (Leuven: Leuven University Press, 1977) 221–37.

Burkard, Franz. *Philosophische Lehrgehalte in Gabriel Biels Sentenzenkommentar unter besonderer Berücksichtigung seiner Erkenntnislehre* (Meisenheim am Glan: Hain, 1974).

Burnett, Charles. *Adelard of Bath: An English Scientist and Arabist of the Early Twelfth Century* (London: Warburg Institute, University of London, 1987).

"*Algorismi vel helcep decentior est diligentia*: The Arithmetic of Adelard of Bath and his Circle," in M. Folkerts (ed.) *Mathematische Probleme im Mittelalter: der lateinische und arabische Sprachbereich* (Wiesbaden: Harrassowitz, 1996) 221–331.

"Arabic into Latin: The Reception of Arabic Philosophy into Western Europe," in P. Adamson and R. Taylor (eds.) *The Cambridge Companion to Arabic Philosophy* (Cambridge: Cambridge University Press, 2005) 370–404.

"The Coherence of the Arabic–Latin Translation Program in Toledo in the Twelfth Century," *Science in Context* 14 (2001) 249–88.

"Euclid and al-Fārābī in MS Vatican Reg. Lat. 1268," in R. Arnzen and J. Thielmann (eds.) *Words, Texts and Concepts Cruising the Mediterranean Sea: Studies on the Sources, Contents and Influences of Islamic Civilization and Arabic Philosophy and Science* (Leuven: Peeters, 2004) 411–36.

"Hermann of Carinthia," in P. Dronke (ed.) *A History of Twelfth-Century Western Philosophy* (Cambridge: Cambridge University Press, 1988) 386–404.

The Introduction of Arabic Learning into England (London: British Library, 1997).

"Physics before the *Physics*. Early Translations from Arabic of Texts Concerning Nature in MSS British Library, Additional 22719 and Cotton Galba E IV," *Medioevo* 27 (2002) 53–109.

"'Ptolemaeus in Almagesto dixit': The Transformation of Ptolemy's Almagest in its Transmission via Arabic into Latin," in H. Böhme and G. Toepfer (eds.) *Was ist Wissenschaft? Wissensformen der Antike und ihre Transformationen* (Berlin: De Gruyter, 2009).

"The Works of Petrus Alfonsi: Questions of Authenticity," *Medium Aevum* 66 (1997) 42–79.

Burnett, Charles and Danielle Jacquart (eds.). *Constantine the African and ʿAli ibn al-ʿAbbas al-Magusi: The Pantegni and Related Texts* (Leiden: Brill, 1994).

Burnyeat, Myles. "Aquinas on 'Spiritual Change' in Perception," in D. Perler (ed.) *Ancient and Medieval Theories of Intentionality* (Leiden: Brill, 2001) 129–53.

Burr, David. *Eucharistic Presence and Conversion in Late Thirteenth-Century Franciscan Thought* (Philadelphia, PA: American Philosophical Society, 1984).

Olivi and Franciscan Poverty: The Origins of the Usus Pauper Controversy (Philadelphia: University of Pennsylvania Press, 1989).

Olivi's Peaceable Kingdom: A Reading of the Apocalypse Commentary (Philadelphia: University of Pennsylvania Press, 1993).

The Persecution of Peter Olivi (Philadelphia, PA: American Philosophical Society, 1976).

"Peter John Olivi and the Philosophers," *Franciscan Studies* 31 (1971) 41–71.

The Spiritual Franciscans: From Protest to Persecution in the Century after Saint Francis (University Park: Pennsylvania State University Press, 2001).

Burrell, David. *Faith and Freedom: An Interfaith Perspective* (Oxford: Blackwell, 2004).

Burrows, Mark. *Jean Gerson and "De Consolatione Theologiae" (1418): The Consolation of a Biblical and Reforming Theology for a Disordered Age* (Tübingen: Mohr, 1991).

Bursill-Hall, Geoffrey. *A Census of Medieval Latin Grammatical Manuscripts* (Stuttgart: Frommann-Holzboog, 1981).

    Speculative Grammars of the Middle Ages: The Doctrine of Partes orationis of the Modistae (The Hague: Mouton, 1971).

Burton, John. *The Sources of Islamic Law: Islamic Theories of Abrogation* (Edinburgh: Edinburgh University Press, 1990).

Burton, Pierre-André. *Bibliotheca Aelrediana Secunda: Une bibliographie cumulative (1962–1996)* (Louvain-la-Neuve: Fédération internationale des instituts d'études médiévales, 1997).

Busard, H. L. L. "Unendliche Reihen in *A est unum calidum*," *Archive for History of Exact Sciences* 2 (1965) 387–97.

Butterworth, Charles E. "Al-Kindi and the Beginnings of Islamic Political Philosophy," in C. Butterworth (ed.) *The Political Aspects of Islamic Philosophy* (Cambridge, MA: Harvard University Press, 1992) 14–32.

Buzzetti, Dino. "Linguaggio e ontologia nei commenti di autore bolognese al *De tribus praedicamentis* di William de Heytesbury," in D. Buzzetti (ed.) *L'insengamento della logica a Bologna nel XIV secolo* (Bologna: Presso l'Istituto per la Storia dell'Università, 1992) 579–604.

Bydén, Börje. "'Strangle Them with These Meshes of Syllogisms!': Latin Philosophy in Greek Translations of the Thirteenth Century," in J. O. Rosenqvist (ed.) *Interaction and Isolation in Late Byzantine Culture* (Stockholm: Swedish Research Institute in Istanbul, 2004) 133–57.

    Theodore Metochites' Stoicheiosis astronomike *and the Study of Natural Philosophy and Mathematics in Early Palaiologan Byzantium* (Gothenburg: Acta Universitatis Gothoburgensis, 2003).

Bynum, Caroline Walker. *Fragmentation and Redemption: Essays on Gender and the Human Body in Medieval Religion* (New York: Zone Books, 1992).

    Holy Feast, Holy Fast: The Religious Significance of Food to Medieval Women (Berkeley: University of California Press, 1987).

    Jesus as Mother: Studies in the Spirituality of the High Middle Ages (Berkeley: University of California Press, 1982).

    The Resurrection of the Body in Western Christianity 200–1336 (New York: Columbia University Press, 1995).

    Wonderful Blood: Theology and Practice in Late Medieval Northern Germany and Beyond (Philadelphia: University of Pennsylvania Press, 2007).

Cacouros, Michel. "De la pensée grecque à la pensée byzantine," in J.-F. Mattéi (ed.) *Encyclopédie philosophique universelle* (Paris: Presses universitaires de France, 1998) IV: 1362–84.

    "Georges Scholarios et le *Paris. Gr. 1932:* Jean Chortasménos, l'enseignement de la logique, le thomisme à Byzance," in *The Greek Script in the 15th and 16th Century* (Athens: National Hellenic Research Foundation, 2000) 397–442.

    "Recherches sur le commentaire inédit de Théodore Prodrome aux *Analytiques postérieurs*, livre II d'Aristote," *Atti della Accademia Pontaniana* n.s. 38 (1990) 313–38.

Cacouros, Michel and Marie-Hélène Congourdeau. *Philosophie et sciences à Byzance de 1204 à 1453* (Leuven: Peeters, 2006).

Callaey, Frédégand. *L'idéalisme franciscain spirituel au xive siècle: étude sur Ubertino de Casale* (Leuven: Bureau du Recueil, 1911).

Callus, D. A. *The Condemnation of St Thomas at Oxford*. The Aquinas Society of London, Aquinas Paper 5 (London: Blackfriars Publications, 1955).

    "The Introduction of Aristotelian Learning to Oxford," *Proceedings of the British Academy* 29 (1943) 229–81.

"The Problem of the Unity of Form and Richard Knapwell, O.P.," *Mélanges offerts à Étienne Gilson* (Toronto: Pontifical Institute of Mediaeval Studies, 1959) 123–60.

(ed.). *Robert Grosseteste: Scholar and Bishop* (Oxford: Clarendon Press, 1955).

"The Treatise of John Blund on the Soul," *Autour d'Aristote: recueil d'études de philosophie ancienne et médiévale offert à Mgr. A. Mansion* (Leuven: Publications universitaires, 1955) 471–95.

"Two Early Oxford Masters on the Plurality of Forms: Adam of Buckfield – Richard Rufus of Cornwall," *Revue neo-scholastique de philosophie* 42 (1939) 411–45.

Calma, Monica. "Pierre d'Ailly: le commentaire sur les *Sentences* de Pierre Lombard," *Bulletin de philosophie médiévale* 49 (2007) 139–94.

Cameron, Averil. *Christianity and the Rhetoric of Empire: The Development of Christian Discourse* (Berkeley: University of California Press, 1991).

Cameron, Margaret. "Boethius on Utterances, Understanding, and Reality," in J. Marenbon (ed.) *The Cambridge Companion to Boethius* (Cambridge: Cambridge University Press, 2009) 85–104.

Canfora, Davide. *La controversia di Poggio Bracciolini e Guarino Veronese su Cesare e Scipione* (Florence: Olschki, 2001).

Canning, Joseph. *A History of Medieval Political Thought 300–1450* (Cambridge: Cambridge University Press, 1994).

The Political Thought of Baldus de Ubaldis (New York: Cambridge University Press, 1987).

Capelle, G. C. *Amaury de Bène: étude sur son panthéisme formel* (Paris: Vrin, 1932).

Cappuyns, Maieul. *Jean Scot Érigène: sa vie, son œuvre, sa pensée* (Paris: De Brouwer, 1933).

Caputo, Nina. *Nahmanides in Medieval Catalonia: History, Community and Messianism* (Notre Dame, IN: University of Notre Dame Press, 2008).

Carabine, Deirdre. *John Scottus Eriugena* (Oxford: Oxford University Press, 2000).

Carfantan, Jerry (ed.). *William, Abbot of St. Thierry: A Colloquium at the Abbey of St. Thierry* (Kalamazoo, MI: Cistercian Publications, 1987).

Caron, Pier Giovanni. "Aequitas et interpretatio dans la doctrine canonique aux XIIIe et XIVe siècles," in S. Kuttner (ed.) *Proceedings of the Third International Congress of Medieval Canon Law* (Vatican: Biblioteca Apostolica Vaticana, 1971) 131–41.

"Aequitas romana, 'Misericordia' patristica e 'Epicheia' aristotelica nella dottrina decretalistica del Duecento e Trecento," *Studia Gratiana* 14 (1967) 309–47.

Caroti, Stefano. "La critica contro l'astrologia di Nicole Oresme e la sua influenza nel Medioevo e nel Rinascimento," *Atti della Accademi nazionale, Classe di scienze morali* 238 (1979) 543–685.

"*Mirabilia*, scetticismo, e filosofia della natura nei *Quodlibeta* di Nicole Oresme," *Annali dell'Istituto e museo di storia della scienza di Firenze* 9 (1984) 3–20.

"Les *modi rerum*... Encore une fois. Une source possible de Nicole Oresme: le commentaire sur le livre 1er des *Sentences* de Jean de Mirecourt," in S. Caroti and J. Celeyrette (eds.) *Quia inter doctores est magna dissensio: Les débats de philosophie naturelle à Paris au XIVe siècle* (Florence: Olschki, 2004) 195–222.

"Nicole Oresme et les *modi rerum*," *Oriens–Occidens: Sciences, mathématiques et philosophie de l'Antiquité à l'Âge classique* 3 (2000) 115–44.

"Oresme on Motion (Questiones super Physicam, III, 2–7)," *Vivarium* 31 (1993) 8–36.

"La position de Nicole Oresme sur la nature du mouvement (Quaestiones super Physicam III, 1–8): problèmes gnoséologiques, ontologiques et sémantiques," *Archives d'histoire littéraire et doctrinale du moyen âge* 61 (1994) 303–85.

Caroti, Stefano and Christophe Grellard (eds.). *Nicolas d'Autrécourt et la faculté des arts de Paris (1317–1340)* (Cesena: Stilgraf Editrice, 2006).

Carter, M. G. *Sibawayhi* (London: I. B. Tauris, 2004).

Casagrande, Carla. "Predicare la penitenza: La *Summa de poenitentia* di Servasanto da Faenza," in *Dalla penitenza all'ascolto delle confessioni: il ruolo dei frati mendicanti* (Spoleto: Centro italiano di studi sull'alto medioevo, 1996) 59–101.

Casagrande, Carla and Silvana Vecchio. "La classificazione dei peccati tra settenario e decalogo (secoli XIII–XV)," *Documenti e studi sulla tradizione filosofica medievale* 5 (1994) 331–95.

    I peccati della lingua: disciplina ed etica della parola nella cultura medievale (Rome: Istituto della Enciclopedia Italiana, 1987).

    I sette vizi capitali: storia dei peccati nel medioevo (Turin: Einaudi, 2000).

Casarella, Peter. *Cusanus: The Legacy of Learned Ignorance* (Washington, DC: Catholic University of America Press, 2006).

Casey, Michael. *A Thirst for God: Spiritual Desire in Bernard of Clairvaux's Sermons on the Song of Songs* (Kalamazoo, MI: Cistercian Publications, 1988).

Casini, Lorenzo. "Cognitive and Moral Psychology in Renaissance Philosophy: A Study of Juan Luis Vives' *De anima et vita*" (Ph.D. dissertation: University of Uppsala, 2006).

Cassell, Anthony. *An Historical Study with Accompanying Translations of Dante Alighieri's Monarchia, Guido Vernani's Refutation of the Monarchia composed by Dante, and Pope John XXII's Bull Si fratrum* (Washington, DC: Catholic University of America Press, 2004).

Caster, Kevin. "William of Auvergne and St. Thomas Aquinas on the Real Distinction between Being and Essence," in J. Hackett *et al.* (eds.) *Being and Thought in Aquinas* (Binghamton, NY: Global Academic Publications, 2004) 75–108.

Catto, J. I. (ed.). *The History of the University of Oxford*, vol. I: *The Early Oxford Schools* (Oxford: Oxford University Press, 1984).

    "Theology and Theologians 1220–1320," in J. I. Catto (ed.) *The History of the University of Oxford* (Oxford: Oxford University Press, 1984) I: 471–517.

    "Wyclif and Wycliffism in Oxford, 1356–1430," in J. I. Catto and R. Evans (eds.) *The History of the University of Oxford* (Oxford: Clarendon Press, 1992) II: 175–261.

Catto, J. I. and Ralph Evans (eds.). *The History of the University of Oxford*, vol. II: *The Late Middle Ages* (Oxford: Oxford University Press, 1993).

Cavigioli, Jean-Daniel. "Les écrits d'Heymericus de Campo (1395–1460) sur les œuvres d'Aristote," *Freiburger Zeitschrift für Philosophie und Theologie* 28 (1981) 293–371.

Cavigioli, Jean-Daniel and Ruedi Imbach. "Quelques compléments aux catalogues des œuvres d'Heymericus de Campo," *Codices Manuscripti* 7 (1981) 1–3.

Celeyrette, Jean and Edmond Mazet. "La hiérarchie des degrés d'être chez Nicole Oresme," *Arabic Sciences and Philosophy* 8 (1998) 45–65.

Cenci, Cesare. "Fr. Guglielmo de Falgar o Fr. Guglielmo Farinier?" *Archivum Franciscanum Historicum* 78 (1985) 481–9.

Ceric, Mustafa. *Roots of Synthetic Theology in Islam: A Study of the Theology of Abū Mansūr al-Māturīdī* (Kuala Lumpur: International Institute of Islamic Thought and Civilization, 1995).

Cesalli, Laurent. "Le 'pan-propositionnalisme' de Jean Wyclif," *Vivarium* 43 (2005) 124–55.

    "Le réalisme propositionnel de Walter Burley," *Archives d'histoire doctrinale et littéraire du moyen âge* 68 (2001) 155–221.

Chadwick, Henry. "Ego Berengarius," *Journal of Theological Studies* 40 (1989) 414–45.

    "Origen, Celsus, and the Resurrection of the Body," *Harvard Theological Review* 41 (1948) 83–102.

Chandler, Hugh. "Plantinga and the Contingently Possible," *Analysis* 36 (1976) 106–9.

Chappuis, Marguerite, Ludger Kaczmarek, and Olaf Pluta. "Die philosophischen Schriften des Peter von Ailly: Authentizität und Chronologie," *Freiburger Zeitschrift für Philosophie und Theologie* 33 (1986) 593–615.

Charland, Thomas-Marie. *Artes praedicandi: contribution à l'histoire de la rhétorique au Moyen Age* (Paris: Vrin, 1936).

Chase, Steven. *Angelic Wisdom: The Cherubim and the Grace of Contemplation in Richard of St. Victor* (Notre Dame, IN: University of Notre Dame Press, 1995).

Châtillon, Jean. "Achard de St Victor et le De discretione anime, spiritus et mentis," *Archives d'histoire doctrinale et littéraire du moyen âge* 31 (1964) 7–35.

   Théologie, spiritualité et métaphysique dans l'œuvre oratoire d'Achard de Saint-Victor (Paris: Vrin, 1969).

Chazen, Robert. *Barcelona and Beyond: The Disputation of 1263 and its Aftermath* (Berkeley: University of California Press, 1992).

Chejne, Anwar. *Ibn Hazm* (Chicago: Kazi Publications, 1982).

   "Ibn Hazm of Cordova on Logic," *Journal of the American Oriental Society* 104 (1984) 57–72.

Cheneval, Francis. "'Utrum omnia eveniant de necessitate': Textedition und Studie der gleich-namigen Quaestio von Thaddaeus von Parma (Cod. Vat. Lat. 6768)," *Freiburger Zeitschrift für Philosophie und Theologie* 35 (1988) 175–99.

Chenu, Marie-Dominique. "Maîtres et bacheliers de l'Université de Paris v. 1240. Description du manuscrit Paris, Bibl. Nat. lat. 15652," *Études d'histoire littéraire et doctrinale du XIIIᵉ siècle* 1 (1932) 11–39.

   La théologie au douzième siècle (Paris: Vrin, 1966).

   La théologie comme science au XIIIᵉ siècle (Paris: Vrin, 1957).

Chittick, William. *Imaginal Worlds: Ibn al-ʿArabī and the Problem of Religious Diversity* (Albany: State University of New York Press, 1994).

   The Sufi Path of Knowledge: Ibn al-ʿArabī's Metaphysics of Imagination (Albany: State University of New York Press, 1989).

Chodkiewicz, Michel. *An Ocean without Shore: Ibn ʿArabī, the Book, and the Law* (Albany: State University of New York Press, 1993).

Chodorow, Stanley. *Christian Political Theory and Church Politics in the Mid-Twelfth Century: The Ecclesiology of Gratian's Decretum* (Berkeley: University of California Press, 1972).

Cipolla, Carlo. *Before the Industrial Revolution: European Society and Economy, 1000–1700*, 2nd edn (New York: Norton, 1980).

Clagett, Marshall. "The Medieval Latin Translations from the Arabic of the Elements of Euclid, with Special Emphasis on the Versions of Adelard of Bath," *Isis* 44 (1953) 16–42.

   "Richard Swineshead and Late Medieval Physics," *Osiris* 9 (1950) 131–61.

   The Science of Mechanics in the Middle Ages (Madison: University of Wisconsin Press, 1959; repr. 1961).

Clanchy, M. T. *From Memory to Written Record*, 2nd edn (Oxford: Blackwell, 1993).

Clarence Smith, J. A. "Bartolo on the Conflict of Laws," *American Journal of Legal History* 14 (1970) 157–74, 247–75.

Classen, Peter. *Burgundio von Pisa: Richter, Gesandter, Ubersetzer* (Heidelberg: Carl Winter Universitätsverlag, 1974).

   Gerhoch von Reichersberg: eine Biographie (Wiesbaden: Steiner, 1960).

Clegg, Brian. *The First Scientist: A life of Roger Bacon* (New York: Carroll and Graf, 2003).

Clucas, Lowell. *The Trial of John Italos and the Crisis of Intellectual Values in Byzantium in the Eleventh Century* (Munich: Institut für Byzantinistik, Neugriechische Philologie und Byzantinische Kunstgeschichte der Universität, 1981).

Cochrane, Louise. *Adelard of Bath: The First English Scientist* (London: British Museum Press, 1994).

Code, Alan. "Aristotle's Metaphysics as a Science of Principles," *Revue internationale de philosophie* 51 (1997) 357–78.

Codellas, P. S. "Nikephoros Blemmydes' Philosophical Works and Teachings," *Proceedings of the Xth International Congress of Philosophy* (Amsterdam: North-Holland, 1949) 1117–18.

Cohen, Gerson D. "The Soteriology of Abraham Maimuni," *Proceedings of the American Academy for Jewish Research* 35 (1967) 75–98; 36 (1968) 33–56.

Coleman, Janet. "*Dominium* in Thirteenth- and Fourteenth-Century Political Thought and its Seventeenth-Century Heirs: John of Paris and Locke," *Political Studies* 33 (1985) 73–100.

    "FitzRalph's Antimendicant 'proposicio' (1350) and the Politics of the Papal Court at Avignon," *Journal of Ecclesiastical History* 35 (1984) 376–90.

    "Jean de Ripa and the Oxford Calculators," *Mediaeval Studies* 37 (1975) 130–89.

    A History of Political Thought from the Middle Ages to the Renaissance (Oxford: Blackwell, 2000).

    "Medieval Discussions of Property: *Ratio* and *Dominium* according to John of Paris and Marsilius of Padua," *History of Political Thought* 4 (1983) 209–28.

    "Poverty, Property and Political Thought in Fourteenth-Century Scholastic Philosophy," in C. Wenin (ed.) *L'homme et son univers au moyen age* (Louvain-la-Neuve: Éditions de l'Institut Supérieur de Philosophie, 1986) 845–55.

    "Property and Poverty," in J. Burns (ed.) *The Cambridge History of Medieval Political Thought* (Cambridge: Cambridge University Press, 1988) 607–48.

Colish, Marcia. "*Habitus* Revisited: A Reply to Cary Nederman," *Traditio* 48 (1993) 77–92.

    Peter Lombard (Leiden: Brill, 1994).

Collins, Ann Ryan. *Teacher in Faith and Virtue: Lanfranc of Bec's Commentary on Saint Paul* (Leiden: Brill, 2007).

Colomer, Eusebio. "Heimeric van de Velde entre Ramón Llull y Nicolas de Cusa," in J. Vincke (ed.) *Spanische Forschungen der Görres-Gesellschaft* (Münster: Aschendorff, 1963) XXI: 216–32.

Combes, André. "L'intensité des formes après Jean de Ripa," *Archives d'histoire doctrinale et littéraire du moyen âge* 37 (1970) 17–147.

    "La métaphysique de Jean de Ripa," in *Die Metaphysik im Mittelalter* (*Miscellanea Mediaevalia* 2) (Berlin: De Gruyter, 1963) 543–73.

    "Présentation de Jean de Ripa," *Archives d'histoire doctrinale et littéraire du moyen âge* 23 (1956) 145–242.

Conforti, Patrizia. "Hervé de Nédellec et les questiones ordinaires *De cognitione primi principii*," *Revue Thomiste* 97 (1997) 63–82.

    "'Naturali cognitione probare': Natural and Theological Knowledge in Hervaeus Natalis," in J. A. Aertesen and A. Speer (eds.) *Was ist Philosophie im Mittelalter?* (*Miscellanea Mediaevalia* 26) (Berlin: De Gruyter, 1999) 614–21.

Congar, Yves. "Aspects ecclésiologiques de la querelle entre mendicants et séculiers dans la seconde moitié du XIIIᵉ siècle et le début du XIVᵉ siècle," *Archives d'histoire doctrinale et littéraire du moyen âge* 28 (1961) 35–151.

Connolly, James. *Jean Gerson: Reformer and Mystic* (London: Herder, 1928).

Conrad, Lawrence I. (ed.). *The World of Ibn Tufayl: Interdisciplinary Perspectives on Hayy Ibn Yaczan* (Leiden: Brill, 1996).

Constable, Giles. *The Reformation of the Twelfth Century* (Cambridge: Cambridge University Press, 1996).

Constable, Giles and James Kritzeck (eds.). *Petrus Venerabilis, 1156–1956: Studies and Texts Commemorating the Eighth Centenary of his Death* (Rome: Herder, 1956).

Conti, Alessandro D. "Analogy and Formal Distinction: On the Logical Basis of Wyclif's Metaphysics," *Medieval Philosophy and Theology* 6 (1997) 133–65.

"Categories and Universals in the Later Middle Ages," in L. Newton (ed.) *Medieval Commentaries on Aristotle's* Categories (Leiden: Brill, 2008) 369–409.

"Le composizione metafisica dell'ente finito corporeo nell'ontologia di Thomas Sutton," *Documenti e studi sulla tradizione filosofica medievale* 2 (1991) 317–60.

"Conoscenza e verità in Egidio Romano," *Documenti e studi sulla tradizione filosofica medievale* 3 (1992) 305–61.

Esistenza e verità: forme e strutture del reale in Paolo Veneto e nel pensiero filosofico del tardo medioevo (Rome: Edizioni dell'Istituto Storico Italiano per il Medioevo, 1996).

"Johannes Sharpe's Ontology and Semantics: Oxford Realism Revisited," *Vivarium* 43 (2005) 156–86.

"Linguaggio e realtà nel commento alle *Categorie* di Robert Alyngton," *Documenti e studi sulla tradizione filosofica medievale* 4 (1993) 179–306.

"Ontology in Walter Burley's Last Commentary on the *Ars Vetus,*" *Franciscan Studies* 50 (1990) 121–76.

"Paul of Venice on Individuation," *Recherches de théologie et philosophie médiévales* 65 (1998) 107–32.

"Paul of Venice's Theory of Divine Ideas and its Sources," *Documenti e studi sulla tradizione filosofica medievale* 14 (2003) 409–48.

"A Realist Interpretation of the *Categories* in the Fourteenth Century: The *Litteralis sententia super Praedicamenta Aristotelis* of Robert Alyngton," in L. Newton (ed.) *Medieval Commentaries on Aristotle's* Categories (Leiden: Brill, 2008) 317–46.

"Significato e verità in Walter Burley," *Documenti e studi sulla tradizione filosofica medievale* 11 (2000) 317–50.

"Teoria degli universali e teoria della predicazione nel trattato *De universalibus* di William Penbygull: discussione e difesa della posizione di Wyclif," *Medioevo* 8 (1982) 137–203.

"Thomas Sutton's Commentary on the 'Categories' according to Ms Oxford, Merton College 289," in P. O. Lewry (ed.) *The Rise of British Logic* (Toronto: Pontifical Institute of Mediaeval Studies, 1985) 173–213.

"Wyclif's Logic and Metaphysics," in I. C. Levy (ed.) *A Companion to John Wyclif* (Leiden: Brill, 2006) 67–125.

Conticello, G. C. and Vassa Conticello. *La théologie byzantine et sa tradition* (Turnhout: Brepols, 2002).

Contreni, John. "The Carolingian Renaissance: Education and Literary Culture," in R. McKitterick (ed.) *The New Cambridge Medieval History*, vol. II: *c.700–c.900* (Cambridge: Cambridge University Press, 1991) 709–57.

Conybeare, F. C., J. Rendel Harris, and Agnes Smith Lewis (ed.). *The Story of Ahikar from the Aramaic, Syriac, Arabic, Armenian, Ethiopic, Old Turkish, Greek and Slavonic Versions* (London: C. J. Clay and Sons, 1898).

Cook, Michael. *Commanding Right and Forbidding Wrong in Islamic Thought* (Cambridge: Cambridge University Press, 2000).

Coolman, Boyd. *Knowing God by Experience: The Spiritual Senses in the Theology of William of Auxerre* (Washington, DC: Catholic University of America Press, 2004).

Cooper, John. *Reason and Emotion: Essays on Ancient Moral Psychology and Ethical Theory* (Princeton, NJ: Princeton University Press, 1999).

Cooperson, Michael. "Ibn al-Muqaffaʿ," in O. Leaman (ed.) *The Biographical Encyclopaedia of Islamic Philosophy* (London: Thoemmes, 2006) I: 280–6.

Copleston, Frederick. *A History of Philosophy* (Westminster, MD: Newman Press, 1946–75).

Corbin, Henry. *Creative Imagination in the Sufism of Ibn ʿArabī* (Princeton, NJ: Princeton University Press, 1969).

Côté, Antoine. "Guerric de Saint-Quentin et le problème de l'infinité divine," in B. C. Bazán et al. (eds.) *Les philosophies morales et politiques au Moyen Âge* (Ottawa: Legas, 1995) 1132–48.

Courtenay, William J. "The Academic and Intellectual Worlds of Ockham," in P. V. Spade (ed.) *The Cambridge Companion to Ockham* (Cambridge: Cambridge University Press, 1999) 17–30.

    Adam Wodeham: An Introduction to his Life and Writings (Leiden: Brill, 1978).

    "The Categories, Michael of Massa and Natural Philosophy at Paris, 1335–1340," in J. Biard and I. Rosier-Catach (eds.) *La tradition médiévale des Catégories (XIIe–XVe siècles): XIIIe Symposium européen de logique et de sémantique médiévales* (Leuven: Peeters, 2003) 243–60.

    "Covenant and Causality in Pierre d'Ailly," *Speculum* 46 (1971) 94–119.

    "The Dialectic of Omnipotence in the High and Late Middle Ages," in T. Rudavsky (ed.) *Divine Omniscience and Omnipotence in Medieval Philosophy* (Dordrecht: Reidel, 1985) 243–69.

    "The Early Career of Nicole Oresme," *Isis* 91 (2000) 542–8.

    "John of Mirecourt and Gregory of Rimini on Whether God Can Undo the Past," *Recherches de théologie ancienne et médiévale* 39 (1972) 224–53; 40 (1973) 147–74.

    "Necessity and Freedom in Anselm's Conception of God," *Analecta Anselmiana* 4 (1975) 39–64.

    "The *Quaestiones in Sententias* of Michael de Massa, OESA. A Redating," *Augustiniana* 45 (1995) 191–207.

    "Radulphus Brito, Master of Arts and Theology," *Cahiers de l'Institut du Moyen Age Grec et Latin* 76 (2005) 131–58.

    "Reflections on Vat. Lat. 1086 and Prosper of Reggio Emilia O.E.S.A.," in C. Schabel (ed.) *Theological Quodlibeta in the Middle Ages: The Fourteenth Century* (Leiden: Brill, 2007) 345–57.

    "The Registers of the University of Paris and the Statutes Against the 'Scientia Occamica'," *Vivarium* 29 (1991) 13–49.

    "A Revised Text of Robert Holcot's Quodlibetal Dispute on Whether God is Able to Know More Than He Knows," *Archiv für Geschichte der Philosophie* 53 (1971) 1–21.

    Schools and Scholars in Fourteenth-Century England (Princeton, NJ: Princeton University Press, 1987).

    "Some Notes on Robert of Halifax, O.F.M.," *Franciscan Studies* 33 (1973) 135–42.

Cousin, P. *Abbon de Fleury-sur-Loire: un savant, un pasteur, un martyr à la fin du Xe siècle* (Paris: Lethielleux, 1954).

Cousin, Victor. *Ouvrages inédits d'Abélard pouvant servir à l'histoire de la philosophie scolastique en France* (Paris: Imprimerie Royale, 1836).

Coutre, R. A. "The Use of Epikeia in Natural Law: Its Early Developments," *Église et théologie* 4 (1973) 71–93.

Couvreur, Gilles. *Les pauvres ont-ils des droits? Recherches sur le vol en cas d'extrême nécessité depuis la Concordia de Gratien (1140) jusqu'à Guillaume d'Auxerre († 1231)* (Rome: Libreria Editrice dell'Università Gregoriana, 1961).

    "Pauvreté et droits des pauvres à la fin du XIIe siècle," in G. Couvreur (ed.) *La pauvreté: des sociétés de pénurie à la société d'abondance* (Paris: Fayard, 1964) 13–37.

Covington, Michael. *Syntactic Theory in the High Middle Ages: Modistic Models of Sentence Structure* (Cambridge: Cambridge University Press, 1984).

Cowdrey, H. E. J. "The Enigma of Archbishop Lanfranc," *Haskins Society Journal* 6 (1994) 129–52.

  Lanfranc: Scholar, Monk, and Archbishop (Oxford: Oxford University Press, 2003).

Cox, Virginia and John O. Ward (eds.). *The Rhetoric of Cicero in its Medieval and Early Renaissance Commentary Tradition* (Leiden: Brill, 2006).

Craemer-Ruegenberg, Ingrid. *Albert the Great* (Leipzig: Benno, 2005).

Craig, Edward (ed.). *Routledge Encyclopedia of Philosophy* (London: Routledge, 1998).

Craig, William Lane. *The Problem of Divine Foreknowledge and Future Contingents from Aristotle to Suarez* (Leiden: Brill, 1988).

Cremascoli, Giuseppe. "La 'Summa' di Rolando da Cremona, Il testo del prologo," *Studi Medievali* 16 (1975) 825–76.

Creutz, Rudolf. "Die Medizinisch–naturaphilosophische Aphorismen und Kommentar des Magister Urso Salernitanus," *Quellen und Studien zur Geschichte der Naturwissenschaften und der Medizin* 5 (1936) 1–192.

  Urso, der Letzte des Hochsalerno, Arzt, Philosoph, Theologe (Berlin: Ebering, 1934).

Creytens, Raymond. "Autour de la littérature des correctoires," *Archivum Fratrum Praedicatorum* 12 (1942) 313–30.

Crombie, Alistair. *Robert Grosseteste and the Origins of Experimental Science 1100–1700* (Oxford: Clarendon Press, 1953; 2nd edn, 1962).

Crone, Patricia. *Medieval Islamic Political Thought* (Edinburgh: Edinburgh University Press, 2004).

Crone, Patricia and Martin Hinds. *God's Caliph: Religious Authority in the First Centuries of Islam* (Cambridge: Cambridge University Press, 1986).

Cross, Richard. "Absolute Time: Peter John Olivi and the Bonaventurean Tradition," *Medioevo* 27 (2002) 261–300.

  Duns Scotus (Oxford: Oxford University Press, 1999).

  Duns Scotus on God (Aldershot: Ashgate, 2005).

  "Infinity, Continuity, and Composition: The Contribution of Gregory of Rimini," *Medieval Philosophy and Theology* 7 (1998) 89–110.

  "Philosophy of Mind," in T. Williams (ed.) *The Cambridge Companion to Duns Scotus* (Cambridge: Cambridge University Press, 2003) 263–84.

  The Physics of Duns Scotus: The Scientific Context of a Theological Vision (Oxford: Clarendon Press, 1998).

Crowley, Theodore. *Roger Bacon: The Problem of the Soul in his Philosophical Commentaries* (Leuven: Institut Supérieur de Philosophie, 1950).

Cullen, Christopher. *Bonaventure* (New York: Oxford University Press, 2006).

Cunningham, F. A. "Richard of Middleton, O.F.M. on esse and essence," *Franciscan Studies* 30 (1970) 49–76.

Cusato, Michael F. "The Renunciation of Power as a Foundational Theme in Early Franciscan History," in M. Gosman *et al.* (eds.) *The Propagation of Power in the Medieval West* (Groningen: Forsten, 1997) 265–86.

  "To Do Penance / *Facere penitentiam*," *The Cord* 57 (2007) 3–24.

Daftary, Farhad. *The Ismāʿīlīs: Their History and Doctrines* (Cambridge: Cambridge University Press, 1990).

Dahan, Gilbert (ed.). *Gersonide en son temps* (Leuven: Peeters, 1991).

Daiber, Hans. "Die Aristotelesrezeption in der syrischen Literatur," in D. Kuhn and H. Stahl (eds.) *Die Gegenwart des Altertums* (Heidelberg: Edition Forum, 2001) 327–45.

  Bibliography of Islamic Philosophy (Leiden: Brill, 1999).

  Bibliography of Islamic Philosophy: Supplement (Leiden: Brill, 2007).

"Qosṭā ibn Lūqā (9. Jh.) über die Einteilung der Wissenschaften," *Zeitschrift für Geschichte der arabisch-islamischen Wissenschaften* 6 (1990) 93–129.

Dales, Richard C. "Gilbert of Stratton. An Early Oxford Defense of Aquinas's Teaching on the Possibility of a Beginningless World," *Documenti e studi sulla tradizione filosofica medievale* 5 (1994) 259–96.

"Henry of Harclay on the Infinite," *Journal of the History of Ideas* 45 (1984) 295–302.

Medieval Discussions of the Eternity of the World (Leiden: Brill, 1990).

The Problem of the Rational Soul in the Thirteenth Century (Leiden: Brill, 1995).

"Robert Grosseteste's Scientific Works," *Isis* 52 (1961) 381–402.

Dales, Richard C. and Omar Argerami (eds.). *Medieval Latin Texts on the Eternity of the World* (Leiden: Brill, 1991).

Dalfert, Ingolf. *Malum: Theologische Hermeneutik des Bösen* (Tübingen: Mohr Siebeck, 2008).

d'Alverny, Marie-Thérèse. *Alan of Lille's Textes inédits* (Paris: Vrin, 1965).

"Algazel dans l'occident latin," in *Un trait d'union entre l'orient et l'occident: al-Ghazzali et Ibn Maimoun* (Agadir: Académie royale du Maroc, 1986) 125–46.

"Un fragment du procès des Amauriciens," *Archives d'histoire doctrinale et littéraire du moyen âge* 18 (1950–1) 325–36.

"Notes sur les traductions médiévales des œuvres philosophiques d'Avicenne," *Archives d'histoire doctrinale et littéraire du moyen âge* 19 (1952) 337–58.

"L'obit de Raoul Ardent," *Archives d'histoire doctrinale et littéraire du moyen âge* 15/17 (1940) 403–5.

"Pseudo-Aristotle, 'De elementis'," in J. Kraye *et al.* (eds.) *Pseudo-Aristotle in the Middle Ages: The Theology and Other Texts* (London: Warburg Institute, 1986) 63–83.

"Translations and Translators," in R. L. Benson and G. Constable (eds.) *Renaissance and Renewal in the Twelfth Century* (Cambridge, MA: Harvard University Press, 1982) 421–62.

Daly, Lowrie J. *The Political Theory of John Wyclif* (Chicago: Loyola University Press, 1962).

Daly, Saralyn R. "Peter Comestor: Master of Histories," *Speculum* 32 (1957) 62–73.

Damerow, Peter, Gideon Freudenthal, Jürgen Renn, and Peter McLaughlin (eds.). *Exploring the Limits of Preclassical Mechanics* (Dordrecht: Springer, 1992).

D'Ancona, Cristina. "From Latin Antiquity to the Arab Middle Ages: The Commentaries and the Harmony between the Philosophies of Plato and Aristotle," in L. Honnefelder *et al.* (eds.) *Albertus Magnus und die Anfänge der Aristoteles-Rezeption in lateinischen Mittelalter* (Münster: Aschendorf, 2005) 45–69.

"Historiographie du platonisme médiéval: le cas de saint Thomas," in S.-T. Bonino (ed.) *Saint Thomas au XXᵉ siècle (Colloque du centenaire de la "Revue thomiste")* (Paris: Éditions Saint-Paul, 1994) 198–217.

(ed.). *The Libraries of the Neoplatonists* (Leiden: Brill, 2007).

(ed.). *Storia della filosofia nell'Islam medievale* (Turin: Einaudi, 2005).

Daniels, Augustinus. *Quellenbeiträge und Untersuchungen zur Geschichte der Gottesbeweise im XIII. Jahrhundert* (Münster: Aschendorff, 1909).

"Wilhelm von Ware über das menschliche Erkenntnis," *Studien zur Geschichte der Philosophie: Festgabe zum 60. Geburtstag Clemens Baeumker* (Münster: Aschendorff, 1913) 309–18.

D'Anna, Gabriella. "Abelardo e Cicerone," *Studi Medievali* 10 (1969) 333–419.

Davidson, Herbert. *Alfarabi, Avicenna, and Averroes on Intellect: Their Cosmologies, Theories of the Active Intellect, and Theories of Human Intellect* (Oxford: Oxford University Press, 1992).

Moses Maimonides (Oxford: Oxford University Press, 2005).

Proofs for Eternity, Creation, and the Existence of God in Medieval Islamic and Jewish Philosophy (Oxford: Oxford University Press, 1987).

"The Relation between Averroes' Middle and Long Commentaries on the De Anima," *Arabic Sciences and Philosophy* 7 (1997) 139–51.

Davies, Brian. *The Thought of Thomas Aquinas* (Oxford: Clarendon Press, 1992).

Davies, Brian and Brian Leftow (eds.). *The Cambridge Companion to Anselm* (Cambridge: Cambridge University Press, 2004).

Davies, Oliver. *Meister Eckhart: Mystical Theologian* (London: SPCK, 1991).

Davis, Adam. *The Holy Bureaucrat: Eudes Rigaud and Religious Reform in Thirteenth-Century Normandy* (Ithaca, NY: Cornell University Press, 2006).

Davis, Charles. "An Early Florentine Political Theorist: Fra Remigio de' Girolami," *Proceedings of the American Philosophical Society* 104 (1960) 662–76.

"Roman Patriotism and Republican Propaganda: Ptolemy of Lucca and Pope Nicholas III," *Speculum* 50 (1975) 411–33.

d'Avray, David. *Medieval Marriage: Symbolism and Society* (Oxford: Oxford University Press, 2005).

The Preaching of the Friars: Sermons Diffused from Paris before 1300 (Oxford: Clarendon Press, 1985).

Davy, M.-M. *Les sermons universitaires parisiens de 1230–1231: contribution à l'histoire de la prédication médiévale* (Paris: Vrin, 1931).

Dawson, James Doyne. "William of Saint-Amour and the Apostolic Tradition," *Mediaeval Studies* 40 (1978) 223–38.

"Richard FitzRalph and the Fourteenth-Century Poverty Controversies," *Journal of Ecclesiastical History* 34 (1983) 315–44.

de Asúa, M. "Medicine and Philosophy in Peter of Spain's Commentary on 'De animalibus'," in C. Steel *et al.* (eds.) *Aristotle's Animals in the Middle Ages and the Renaissance* (Leuven: Leuven University Press, 1999).

de Barcelona, Martin. "Nicolás Bonet (†1343), Tourangeau, doctor proficuus, O.M.," *Études Franciscaines* 37 (1925) 638–57.

de Callataÿ, Godefroid. *Ikhwān al-Ṣafāʾ: A Brotherhood of Idealists on the Fringe of Orthodox Islam* (Oxford: Oneworld, 2005).

de Certeau, Michel. *La fable mystique: XVI–XVII siècle* (Paris: Gallimard, 1982).

Heterologies (Manchester: Manchester University Press, 1986).

de la Torre, Bartholomew. *Thomas Buckingham and the Contingency of Futures: The Possibility of Human Freedom* (Notre Dame, IN: University of Notre Dame Press, 1987).

de Lagarde, Georges. *La naissance de l'espirit laïque au declin du moyen age* (Leuven: Nauwelaerts, 1956–70).

"La philosophie sociale d'Henri de Gand et de Godefroid de Fontaines," *Archives d'histoire doctrinale et littéraire du moyen âge* 18–20 (1943–5) 73–142.

de Leemans, Pieter. "Peter of Auvergne on Aristotle's *De motu animalium* and the MS Oxford, Merton College 275," *Archives d'histoire doctrinale et littéraire du moyen âge* 71 (2004) 129–202.

de Libera, Alain. "Les *Abstractiones* d'Hervé le Sophiste (Hervaeus Sophista)," *Archives d'histoire doctrinale et littéraire du moyen âge* 52 (1986) 163–230.

"Apollinaire Offredi critique de Pierre de Mantoue: Le *Tractatus de instanti* et la logique du changement," in A. Maierù (ed.) *English Logic in Italy in the 14th and 15th Centuries* (Naples: Bibliopolis, 1982) 253–91.

"Les *Appellationes* de Jean le Page," *Archives d'histoire doctrinale et littéraire du moyen âge* 51 (1984) 193–255.

Introduction à la mystique rhénane d'Albert le Grand à Maître Eckhart (Paris: OEIL, 1984).

"La littérature des *Abstractiones* et la tradition logique d'Oxford," in P. O. Lewry (ed.) *The Rise of British Logic* (Toronto: Pontifical Institute of Mediaeval Studies, 1983) 63–114.

"La littérature des *Sophismata* dans la tradition terministe parisienne de la seconde moitié du XIIIe siècle," in M. Asztalos (ed.) *The Editing of Theological and Philosophical Texts from the Middle Ages* (Stockholm: Almqvist and Wiksell International, 1986) 213–44.

Métaphysique et noétique: Albert le Grand (Paris: Vrin, 2005).

"The Oxford and Cambridge Traditions in Logic," in N. Kretzmann *et al.* (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 174–87.

Penser au Moyen Âge (Paris: Seuil, 1991).

La philosophie médiévale (Paris: Presses universitaires de France, 1993).

La querelle des universaux de Platon à la fin du Moyen Age (Paris: Seuil, 1996).

"Questions de réalisme: sur deux arguments antiockhamistes de John Sharpe," *Revue de metaphysique et de morale* 97 (1992) 83–110.

La référence vide: théories de la proposition (Paris: Seuil, 2002).

"Supposition naturelle et appellation: aspects de la sémantique parisienne au XIIIe siècle," *Histoire Epistémologie Langage* 3 (1981) 63–77.

"Ulrich de Strasbourg, lecteur d'Albert le Grand," *Freiburger Zeitschrift für Philosophie und Theologie* 32 (1985) 105–36.

de Libera, Alain and Irène Rosier. "La pensée linguistique médiévale," in S. Auroux (ed.) *Histoire des idées linguistiques* (Liège: Mardaga, 1992) II: 115–86.

de Matteis, Maria Consiglia. *La "teologia politica comunale" di Remigio de' Girolami* (Bologna: Pàtron, 1977).

de Montclos, Jean. *Lanfranc et Bérenger: la controverse eucharistique du XIe siècle* (Leuven: Spicilegium sacrum Lovaniense, 1971).

de Renzi, Salvatore. *Collectio Salernitana* (Naples: Dalla tipografia del Filiatre-Sebezio, 1852–9; repr. Bologna: Forni Editore, 1967).

de Rijk, L. M. "Each Man's Ass is not Everybody's Ass: On an Important Item in Thirteenth-Century Semantics," *Historiographia Linguistica* 7 (1980) 221–30.

"John Buridan on Universals," *Revue de métaphysique et de morale* 97 (1992) 35–59.

Logica modernorum: A Contribution to the History of Early Terminist Logic (Assen: Van Gorcum, 1962–7).

"On the Genuine Text of Peter of Spain's '*Summule Logicales*', Part II: Simon Faversham (d. 1306) as a Commentator of the Tract I–V of the *Summule*," *Vivarium* 6 (1968) 69–101.

"On the Genuine Text of Peter of Spain's '*Summule Logicales*', Part IV: The *Lectura Tractatum* by Guillelmus Arnaldi, Master of Arts at Toulouse (1235–1244). With a Note on the Date of Lambert of Auxerre's *Summule*," *Vivarium* 7 (1969) 120–62.

"The Origins of the Theory of the Properties of Terms," in N. Kretzmann *et al.* (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 161–73.

"Peter Abailard's Semantics and his Doctrine of Being," *Vivarium* 24 (1986) 85–127.

"The Place of Billingham's *Speculum puerorum* in the 14th and 15th Century Logical Tradition," *Studia Mediewistyczne* 16 (1975) 99–153.

"Richard Billingham's Works on Logic," *Vivarium* 14 (1976) 121–38.

"Semantics and Metaphysics in Gilbert of Poitiers: A Chapter of Twelfth-Century Platonism," *Vivarium* 26 (1988) 73–112; 27 (1989) 11–35.

"Semantics in Richard Billingham and Johannes Venator," in A. Maierù (ed.) *English Logic in Italy in the 14th and 15th Centuries* (Naples: Bibliopolis, 1982) 167–84.

Some Earlier Parisian Tracts on Distinctiones Sophismatum (Nijmegen: Ingenium, 1988).

Some 14th Century Tracts on the Probationes terminorum: *Martin of Alnwick, O.F.M., Richard Billingham, Edward Upton and Others* (Nijmegen: Ingenium, 1982).

"Some New Evidence on Twelfth-Century Logic: Alberic and the School of Mont Ste. Geneviève (Montani)," *Vivarium* 4 (1966) 1–57.

"Some Thirteenth-Century Tracts on the Game of Obligation I," *Vivarium* 12 (1974) 94–123.

"Some Thirteenth-Century Tracts on the Game of Obligation II," *Vivarium* 13 (1975) 22–54.

"Works by Gerald Ot (Gerardus Odonis) on Logic, Metaphysics and Natural Philosophy Rediscovered in Madrid, Bibl. nac. 4229," *Archives d'histoire doctrinale et littéraire du moyen âge* 60 (1993) 173–93.

De Smet, Daniel. *La quiétude de l'intellect: néoplatonisme et gnose ismaélienne dans l'œuvre de Hamīd ad-Dīn al-Kirmānī, Xe/XIe s.* (Leuven: Peeters, 1995).

de Töth, Pietro Tommaso. *Storia di S. Chiara da Montefalco secondo un antico documento dell'anno 1308* (Siena, 1908).

de Tourtoulon, Pierre. *Placentin, sa vie, ses œuvres: étude sur l'enseignement du droit romain au moyen âge dans le midi de la France* (Paris: Librairie Maresq, 1896; repr. Glashütten im Taunus: Detlev Auvermann, 1972).

de Vaux, Roland. *Notes et textes sur l'avicennisme latin aux confins des XIIe et XIIIe siècles* (Paris: Vrin, 1934).

de Vooght, Paul. *L'hérésie de Jean Huss* (Leuven: Publications universitaires, 1960).

de Vries-Van der Velden, Eva. *Théodore Métochite: une réévaluation* (Amsterdam: Gieben, 1987).

De Wulf, Maurice. *Un théologien-philosophe du XIIIe siècle: étude sur la vie, les œuvres et l'influence de Godefroid de Fontaines* (Brussels: Hayez, 1904).

de Zedelghem, Amédée. "L'attritionisme d'Abélard," *Estudis Franciscans* 35 (1925).

Deane, Herbert A. *The Political and Social Ideas of St. Augustine* (New York: Columbia University Press, 1963).

Déchanet, Jean. *William of St Thierry: The Man and his Work* (Spencer, MA: Cistercian Publications, 1972).

Decker, Bruno. *Die Gotteslehre des Jakob von Metz: Untersuchungen zur Dominikanertheologie zu Beginn des 14. Jahrhunderts* (Münster: Aschendorff, 1967).

Decorte, Jos. "Der Einfluss der Willenspsychologie des Walter von Brügge OFM auf die Willenspsychologie und Freiheitlehre das Heinrich von Gent," *Franziskanische Studien* 65 (1983) 215–40.

Degen, Rainer. "Galen im Syrischen: eine Übersicht über die syrische Überlieferung," in V. Nutton (ed.) *Galen: Problems and Prospects* (London: Wellcome Institute for the History of Medicine, 1981) 131–66.

DeGregorio, Scott (ed.). *Innovation and Tradition in the Writings of the Venerable Bede* (Morgantown: West Virginia University Press, 2006).

del Punta, Francesco. 'La *Logica* di R. Feribrigge nella tradizione manoscritta italiana," in A. Maierù (ed.) *English Logic in Italy in the 14th and 15th Centuries* (Naples: Bibliopolis, 1982) 53–85.

del Punta, Francesco, Silvia Donati, and Concetta Luna. "Egidio Romano," in *Dizionario biografico degli Italiani* (Rome: Istituto della Enciclopedia Italiana, 1993) XLII: 319–41.

Delaney, David. *Law and Nature* (Cambridge: Cambridge University Press, 2003).

Delhaye, Philippe. "Le dossier anti-matrimonial de l'*Adversus Jovinianum* et son influence sur quelques écrits latins du XIIe siècle," *Mediaeval Studies* 13 (1951) 65–86.

Pierre Lombard: sa vie, ses œuvres, sa morale (Montréal: Institut d'études médiévales, 1961).

Delio, Ilia. *Simply Bonaventure: An Introduction to his Life, Thought and Writings* (Hyde Park, NY: New City Press, 2001).

Delorme, Ferdinand. "Le Cardinal Vital Du Four: huit questions disputées sur le problème de la connaissance," *Archives d'histoire doctrinale et littéraire du moyen âge* 2 (1927) 333–7.

Delumeau, Jean. *L'aveu et le pardon: les difficultés de la confession xiiie–xviiie siècle* (Paris: Fayard, 1990).

Demetracopoulos, John A. *Apo tēn historia tou byzantinou thōmismou: Plēthōn kai Thōmas Akuinatēs* (Athens: Parousia, 2004).

"Demetrius Cydones' Translation of Bernardus Guidonis' List of Thomas Aquinas' Writings and the Historical Roots of Byzantine Thomism," in A. Speer and D. Wirmer (eds.) *1308: 36. Kölner Mediaevistentagung* (Berlin: De Gruyter, 2010).

"Demetrios Kydones' Translation of the *Summa theologiae*," *Jahrbuch der Österreichischen Byzantinistik* 32 (1982) 311–20.

"Further Evidence on the Ancient, Patristic, and Byzantine Sources of Barlaam the Calabrian's *Contra Latinos*: À propos de A. Fyrigos (ed.), *Barlaam Calabro, Opere contro i Latini*," *Byzantinische Zeitschrift* 96 (2003) 83–122.

"Georgios Gemistos – Plethon's Dependence on Thomas Aquinas' *Summa contra Gentiles* and *Summa Theologiae*," *Archiv für mittelalterliche Philosophie und Kultur* 12 (2006) 276–341.

"Nicholas Cabasilas's *Quaestio de rationis valore*: an anti-Palamite Defense of Secular Wisdom," *Byzantina* 19 (1998) 53–93.

Demetrakopulos, Andronikos K. *Bibliotheca ecclesiastica* (Leipzig, 1866; repr. Hildesheim: Olms, 1965).

Denery, Dallas. *Seeing and Being Seen in the Later Medieval World: Optics, Theology and Religious Life* (Cambridge: Cambridge University Press, 2005).

Denifle, Henri and Émile Chatelain (eds.). *Chartularium Universitatis Parisiensis* (Paris: Delalain, 1889–97).

Denzinger, Heinrich (ed.). *Enchiridion symbolorum definitionum et declarationum de rebus fidei et morum* (Freiburg: Herder, 1963).

Des Chene, Dennis. *Life's Form: Late Aristotelian Conceptions of the Soul* (Ithaca, NY: Cornell University Press, 2000).

Physiologia: Philosophy of Nature in Descartes and the Aristotelians (Ithaca, NY: Cornell University Press, 1995).

Devisse, Jean. *Hincmar, archevêque de Reims, 845–882* (Geneva: Droz, 1975–6).

Dhanani, Alnoor. *The Physical Theory of Kalām* (Leiden: Brill, 1994).

di S. Brocardo, Nilo. "Il profilo storico di Giovanni Baconthorp," *Ephemerides Carmeliticae* 2 (1948) 431–543.

Díaz Esteban, Fernando (ed.). *Abraham Ibn Ezra y su tiempo: actas del simposio internacional* (Madrid: Asociación Espanola de Orientalistas, 1990).

Dickey, Bruce. "Adelard of Bath: An Examination Based on Heretofore Unexamined Manuscripts" (Ph.D. dissertation: University of Toronto, 1982).

Dickson, Marcel and Christiane Dickson. "Le Cardinal Robert de Courson, sa vie," *Archives d'histoire doctrinale et littéraire du moyen âge* 9 (1934) 53–142.

Dieterle, Johann. "Die *Summae confessorum (sive de casibus conscientiae)* von inhren Anfängen an bis zu Silvester Prierias (unter besonderer Berücksichtigung über den Ablass)," *Zeitschrift für Kirchengeschichte* 24 (1903) 353–74, 520–48; 25 (1904) 248–72; 26 (1905) 59–81, 350–62; 27 (1906) 70–83, 166–88, 296–310, 431–42; 28 (1907) 401–31.

Dijs, Judith. "Two Anonymous 12th-Century Tracts on Universals," *Vivarium* 28 (1990) 85–117.

Dinneen, Francis P. "'Suppositio' in Petrus Hispanus: Linguistic Theories and Models," in G. L. Bursill-Hall (ed.) *De ortu grammaticae: Studies in Memory of Jan Pinborg* (Amsterdam: Benjamins, 1990) 69–85.

Dixon, Thomas. *From Passions to Emotions: The Creation of a Secular Psychological Category* (Cambridge: Cambridge University Press, 2003).

Dod, Bernard G. "Aristoteles Latinus," in N. Kretzmann *et al.* (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 45–79.

Dodd, Tony. *The Life and Thought of Siger of Brabant, Thirteenth-Century Parisian Philosopher: An Examination of his Views on the Relationship of Philosophy and Theology* (Lewiston, NY: E. Mellen Press, 1998).

Dodds, E. R. *The Greeks and the Irrational* (Berkeley: University of California Press, 1964).

   Pagan and Christian in an Age of Anxiety (Cambridge: Cambridge University Press, 1965).

Dolnikowski, Edith Wilks. *Thomas Bradwardine: A View of Time and a Vision of Eternity in Fourteenth-Century Thought* (Leiden: Brill, 1995).

Donati, Silvia. "The Anonymous Commentary on the Physics in Erfurt," *Recherches de théologie et philosophie médiévales* 72 (2005) 232–362.

   "La dottrina delle dimensioni indeterminate in Egidio Romano," *Medioevo* 14 (1988) 149–233.

   "Guglielmo di Clifford († 1306) e alcuni commenti anonimi ai Libri naturales del ms. Cambridge, Peterhouse, 157 (De anima, De generatione et corruptione, Meteora, De somno et vigilia, De vegetabilibus)," *Documenti e studi sulla tradizione filosofica medievale* 19 (2008) 501–618.

   "Per lo studio dei commenti alla Fisica del XIII secolo. I: Commenti di probabile origine inglese degli anni 1250–1270 *ca.*," *Documenti e studi sulla tradizione filosofica medievale* 2 (1991) 361–441; 4 (1993) 25–133.

   "Studi per una cronologia delle opera di Egidio Romano. I: Le opera prima del 1285 – I commenti aristotelici," *Documenti e studi sulla tradizione filosofica medievale* 1 (1990) 1–111.

Dondaine, Antoine. *Écrits de la "petite école porrétaine"* (Paris: Vrin, 1962).

   "Guillaume Peyraut, vie et œuvres," *Archivum Fratrum Praedicatorum* 18 (1948) 162–236.

   "Hugues Éthérien et Léon Toscan," *Archives d'histoire doctrinale et littéraire du moyen âge* 19 (1952) 67–134.

d'Onofrio, Giulio (ed.). *Lanfranco di Pavia e l'Europa del secolo XI, nel IX centenario della morte (1089–1989): atti del convegno internazionale di studi* (Rome: Herder, 1993).

d'Ors, Angel. "Petrus Hispanus O.P., Auctor Summularum," *Vivarium* 35 (1997) 21–71; 39 (2001) 209–54; 41 (2003) 249–303.

   "Sobre las *obligationes* de Juan de Holanda," *Anuario filosófico* 31 (1988) 33–70.

   "Sobre las *obligationes* de Richard Lavenham," *Archives d'histoire doctrinale et littéraire du moyen âge* 58 (1991) 253–78.

Dossat, Yves. *Les crises de l'inquisition toulousaine au XIIIᵉ siècle, 1233–1273* (Bordeaux: Bière, 1959).

Doucet, Victorin. "Notulae bibliographicae de quibusdam operibus Fr. Ioannis Pecham, O.F.M.," *Antonianum* 8 (1933) 307–28, 425–59.

   "L'œuvre scolastique de Richard de Conington," *Archivum Franciscanum Historicum* 29 (1937) 396–442.

Douie, D. L. *Archbishop Pecham* (Oxford: Clarendon Press, 1952).

   "Three Treatises on Evangelical Poverty by Fr. Richard Conyngton, Fr. Walter Chatton and an Anonymous from MS V. iii. 18 in Bishop Cosin's library, Durham," *Archivum Franciscanum Historicum* 24 (1931) 341–69.

Dowd, John D. "Matthew of Aquasparta's *De productione rerum* and its Relation to St. Thomas Aquinas and St. Bonaventure," *Franciscan Studies* 34 (1974) 34–73.

Doyle, Matthew. *Bernard of Clairvaux and the Schools: The Formation of An Intellectual Milieu in the First Half of the Twelfth Century* (Spoleto: Fondazione Centro italiano di studi sull'alto medioevo, 2005).

Draelants, Isabelle. "Un encyclopédiste méconnu du XIIIᵉ siècle: Arnold de Saxe. Œuvres, sources, réception" (Ph.D. dissertation: Université catholique de Louvain, 2000).

"Une mise au point sur les œuvres d'Arnoldus Saxo," *Bulletin de philosophie médiévale* 34 (1992) 163–80; 35 (1993) 130–49.

Dreiling, Raymund. *Der Konzeptualismus in der Universalienlehre des Petrus Aureoli* (Münster: Aschendorff, 1913).

Dressler, Fridolin. *Petrus Damiani. Leben und Werk* (Rome: Herder, 1954).

Dronke, Peter. *Fabula: Explorations into the Uses of Myth in Medieval Platonism* (Leiden: Brill, 1974).

"The Lyrical Compositions of Philip the Chancellor," *Studi Medievali* 28 (1987) 563–92.

"Thierry of Chartres," in P. Dronke (ed.) *A History of Twelfth Century Western Philosophy* (Cambridge: Cambridge University Press, 1988) 358–85.

Women Writers of the Middle Ages (Cambridge: Cambridge University Press, 1984).

Druart, Thérèse-Anne. "Al-Farabi, Emanation, and Metaphysics," in P. Morewedge (ed.) *Neoplatonism and Islamic Thought* (Albany: State University of New York Press, 1992) 127–48.

"Al-Ghazali's Conception of the Agent in the *Tahafut* and the *Iqtisad*: Are People Really Agents?," in J. E. Montgomery (ed.) *Arabic Theology, Arabic Philosophy: From the Many to the One* (Leuven: Peeters, 2006) 425–40.

"Al-Kindi's Ethics," *Review of Metaphysics* 47 (1993) 329–57.

"Al-Razi's Conception of the Soul: Psychological Background to his Ethics," *Medieval Philosophy and Theology* 5 (1996) 245–63.

"Al-Razi's Ethics," *Medieval Philosophy and Theology* 6 (1997) 47–71.

"The Human Soul's Individuation and its Survival after the Body's Death: Avicenna on the Causal Relation between Body and Soul," *Arabic Sciences and Philosophy* 10 (2000) 259–74.

"'Shay' or 'Res' as Concomitant of 'Being' in Avicenna," *Documenti e studi sulla tradizione filosofica medievale* 12 (2001) 125–42.

D'Souza, Joachim. "William of Alnwick and the Problem of Faith and Reason," *Salesianum* 35 (1973) 425–88.

Duba, William. "Aristotle's *Metaphysics* in Peter Auriol's Commentary on the *Sentences*," *Documenti e studi sulla tradizione filosofica medievale* 12 (2001) 549–72.

"The Authenticity of Francis of Marchia's *Quodlibet*: The Testimony of Paris, BNF, Ms. lat. 16110," *Bulletin de philosophie médiévale* 49 (2007) 91–102.

"Continental Franciscan *Quodlibeta* after Scotus," in C. Schabel (ed.) *Theological Quodlibeta in the Middle Ages: The Fourteenth Century* (Leiden: Brill, 2007) 569–649.

Duba, William O. and Chris Schabel (eds.). Special issue on Gerald of Odo, *Vivarium* 47.1 (2009).

Düchting, Reinhard. *Sedulius Scottus: seine Dichtungen* (Munich: Fink, 1968).

Dufeil, Michel-Marie. *Guillaume de Saint-Amour et la polémique universitaire parisienne, 1250–1259* (Paris: Picard, 1972).

Duffy, John. "Hellenistic Philosophy in Byzantium and the Lonely Mission of Michael Psellos," in K. Ierodiakonou (ed.) *Byzantine Philosophy and its Ancient Sources* (Oxford: Clarendon Press, 2002) 139–56.

Duggan, Charles. *Twelfth-Century Decretal Collections* (London: Athlone Press, 1963).

Duhem, Pierre. *Le système du monde: histoire des doctrines cosmologiques de Platon à Copernic* (Paris: Hermann, 1913–59).

Duin, Joannes Josef. "La bibliothèque philosophique de Godefroid de Fontaines," *Estudios Lulianos* 3 (1959) 21–36, 137–60.

  La doctrine de la providence dans les écrits de Siger de Brabant; textes et étude (Leuven: Institut Supérieur de Philosophie, 1954).

Dumeige, Gervais. *Richard de Saint-Victor et l'idée chrétienne de l'amour* (Paris: Presses universitaires de France, 1952).

Dümmler, Ernst (ed.). *Poetae Latini aevi Carolini* (Berlin: Weidmann, 1881–1923).

Dumont, Stephen D. "Did Duns Scotus Change his Mind on the Will?," in J. Aertsen *et al.* (eds.) *Nach der Verurteilung von 1277: Philosophie und Theologie an der Universität von Paris im letzten Viertel des 13. Jahrhunderts: Studien und Texte* (Berlin: De Gruyter, 2001) 719–94.

  "Duns Scotus's Parisian Question on the Formal Distinction," *Vivarium* 43 (2005) 7–62.

  "New Questions by Thomas Wylton," *Documenti e studi sulla tradizione filosofica medievale* 10 (1998) 341–81.

  "The Origin of Scotus's Theory of Synchronic Contingency," *Modern Schoolman* 72 (1995) 149–67.

  "Univocity of the Concept of Being in the Fourteenth Century: John Duns Scotus and William of Alnwick," *Mediaeval Studies* 49 (1987) 1–75.

  "The Univocity of the Concept of Being in the Fourteenth Century: II. The *De Ente* of Peter Thomae," *Mediaeval Studies* 50 (1988) 186–256.

  "William of Ware, Richard of Conington and the *Collationes Oxonienses* of John Duns Scotus," in L. Honnefelder *et al.* (eds.) *John Duns Scotus. Metaphysics and Ethics* (Leiden: Brill, 1996) 59–85.

Dunbabin, Jean. "The Commentary of John of Paris (Quidort) on the *Sentences*," in G. R. Evans (ed.) *Mediaeval Commentaries on the* Sentences *of Peter Lombard: Current Research* (Leiden: Brill, 2002) 131–47.

  "Guido Vernani of Rimini's Commentary on Aristotle's Politics," *Traditio* 44 (1988) 373–88.

  A Hound of God: Pierre de la Palud and the Fourteenth-Century Church (Oxford: Clarendon Press, 1991).

Duneau, Jean-François. "Quelques aspects de la pénétration de l'hellénisme dans l'empire perse sassanide (IVe–VIIe siècles)," in P. Gallais and Y.-J. Riou (eds.) *Mélanges offerts à René Crozet* (Poitiers: Société d'études médiévales, 1966) I: 13–22.

Dunphy, William. "Peter of Auvergne and the Twofold Efficient Cause," *Mediaeval Studies* 28 (1966) 1–21.

  "The Similarities between Certain Questions of Peter of Auvergne's *Commentary on the Metaphysics* and the Anonymous *Commentary on the Physics* Attributed to Siger of Brabant," *Mediaeval Studies* 15 (1953) 159–68.

Dunyā, Sulaymān. *Al-Shaykh Muḥammad ʿAbduh bayna al-falāsifa wa-al-kalāmīyyīn* (Cairo: ʿIsa al-Bābī al-Ḥalabī, 1958).

Durling, R. J. "Corrigenda and Addenda to Diels' Galenica, II, Codices miscellanei," *Traditio* 37 (1981) 373–81.

Dutton, Blake D. "Al-Ghazālī on Possibility and the Critique of Causality," *Medieval Philosophy and Theology* 10 (2001) 23–46.

  "Nicholas of Autrecourt and William of Ockham on Atomism, Nominalism, and the Ontology of Motion," *Medieval Philosophy and Theology* 5 (1996) 63–85.

Dutton, Paul E. *The Mystery of the Missing Heresy Trial of William of Conches* (Toronto: Pontifical Institute of Mediaeval Studies, 2006).

Dutton, Paul E. and Anneli Luhtala. "Eriugena in Priscianum," *Mediaeval Studies* 56 (1994) 153–63.

Dvornik, Francis. *Early Christian and Byzantine Political Philosophy* (Washington, DC: Dumbarton Oaks, 1966).

Eardley, Peter S. "The Foundations of Freedom in Later Medieval Philosophy: Giles of Rome and his Contemporaries," *Journal of the History of Philosophy* 44 (2006) 353–76.

"The Problem of Moral Weakness, the *Propositio Magistralis*, and the Condemnation of 1277," *Mediaeval Studies* 68 (2006) 161–203.

Eastwood, Bruce S. "Invention and Reform in Latin Planetary Astronomy," in M. W. Herren et al. (eds.) *Latin Culture in the Eleventh Century. Proceedings of the Third International Conference on Medieval Latin Studies* (Turnhout: Brepols, 2002) I: 264–97.

The Revival of Planetary Astronomy in Carolingian and Post-Carolingian Europe (Aldershot: Ashgate, 2002).

Ebbesen, Sten. "*Animal est omnis homo*: Questions and Sophismata by Peter of Auvergne, Radulphus Brito, William Bonkes, and Others," *Cahiers de l'Institut du Moyen Age Grec et Latin* 63 (1993) 145–208.

"Boethius of Dacia: Science is a Serious Game," *Theoria* 66 (2000) 145–58.

"Can Equivocation Be Eliminated?," *Studia Mediewistyczne* 18 (1977) 103–24.

Commentaries and Commentaries on Aristotle's Sophistici Elenchi*: A Study of Post-Aristotelian Ancient and Medieval Writings on Fallacies* (Leiden: Brill, 1981).

"The Dead Man is Alive," *Synthese* 40 (1979) 43–70.

"Early Supposition Theory (12th–13th century)," *Histoire Epistémologie Langage* 3 (1981) 35–48.

"George Pachymeres and the *Topics*," *Cahiers de l'Institut du Moyen Age Grec et Latin* 66 (1996) 169–85.

"The Present King of France Wears Hypothetical Shoes with Categorical Laces. Twelfth Century Writers on Well-Formedness," *Medioevo* 7 (1981) 91–113.

"Radulphus Brito on the Metaphysics," *Miscellanea Mediaevalia* 28 (2000) 450–92.

"Radulphus Brito: The Last of the Great Arts Masters or: Philosophy and Freedom," in J. A. Aertsen und A. Speer (eds.) *Geistesleben im 13. Jahrhundert* (Berlin: De Gruyter, 2000) 231–51.

"The Sophism 'Rationale est animal' by Radulphus Brito," *Cahiers de l'Institut du Moyen Age Grec et Latin* 24 (1978) 85–120.

(ed.). *Sprachtheorien in Spätantike und Mittelalter* (Tübingen: Narr, 1995).

"Talking About What Is No More: Texts by Peter of Cornwall (?), Richard of Clive, Simon of Faversham, and Radulphus Brito," *Cahiers de l'Institut du Moyen Age Grec et Latin* 55 (1987) 135–68.

"*Termini accidentales concreti*: Texts from the Late Thirteenth Century," *Cahiers de l'Institut du Moyen Age Grec et Latin* 53 (1986) 37–150.

"What Must One Have an Opinion About," *Vivarium* 30 (1992) 62–79.

Ebbesen, Sten and Jan Pinborg. "Bartholomew of Bruges and his Sophisma on the Nature of Logic," *Cahiers de l'Institut du Moyen Age Grec et Latin* 39 (1981) iii–xxvi, 1–80.

"Gennadios and Western Scholasticism: Radulphus Brito's *Ars Vetus* in Greek Translation," *Classica et Mediaevalia* 33 (1981–2) 263–319.

"Studies in the Logical Writings Attributed to Boethius de Dacia," *Cahiers de l'Institut du Moyen Age Grec et Latin* 3 (1970) 1–54.

Ebbesen, Sten and Irène Rosier-Catach. "Petrus de Alvernia + Boethius de Dacia: Syllogizantem ponendum est terminos," *Cahiers de l'Institut du Moyen Age Grec et Latin* 75 (2004) 161–218.

"Robertus Anglicus on Peter of Spain," in I. Angelelli and P. Pérez-Ilzarbe (eds.) *Medieval and Renaissance Logic in Spain* (Hildesheim: Olms, 2000) 60–95.

"Le *trivium* à la Faculté des Arts," in L. Holtz and O. Weijers (eds.) *L'enseignement des disciplines à la Faculté des Arts (Paris et Oxford, XIIIe–XVe siècles)* (Turnhout: Brepols, 1997) 98–128.

"Two Roberts and Peter of Spain," *Cahiers de l'Institut du Moyen Age Grec et Latin* 67 (1997) 200–88.

Eckermann, Willigis. *Der Physikkommentar Hugolins von Orvieto OESA: ein Beitrag zur Erkenntnislehre des spätmittelalterlichen Augustinismus* (Berlin: De Gruyter, 1972).

Schwerpunkte und Wirkungen des Sentenzenkommentars Hugolins von Orvieto O.E.S.A. (Würzburg: Augustinus, 1990).

Wort und Wirklichkeit: Das Sprachverständnis in der Theologie Gregors von Rimini und Sein Weiterwirken in der Augustinerschule (Würzburg: Augustinus, 1978).

Eckermann, Willigis and Bernd Ulrich Hucker (eds.). *Hugolin von Orvieto: Ein spätmittelalterlicher Augustinertheologe in seiner Zeit* (Cloppenburg: Runge, 1992).

Edwards, Raymond. "Themes and Personalities in *Sentence* Commentaries at Oxford in the 1330s," in G. R. Evans (ed.) *Mediaeval Commentaries on the* Sentences *of Peter Lombard: Current Research* (Leiden: Brill, 2002) 379–93.

Efros, Israel. *Studies in Medieval Jewish Philosophy* (New York: Columbia University Press, 1974).

Ehrig-Eggert, Carl. *Die Abhandlung über den Nachweis der Natur des Möglichen von Yaḥyā ibn ʿAdī (gest. 974 A.D.)* (Frankfurt: Institut für Geschichte der Arabisch-Islamischen Wissenschaften an der Johann Wolfgang Goethe-Universität, 1990).

Ehrle, Franz. "Nikolaus Trivet, sein Leben, seine *Quodlibet* und seine *Quaestiones Ordinariae*," *Beiträge zur Geschichte der Philosophie des Mittelalters*, suppl. 2 (1923) 1–63.

Der Sentenzenkommentar Peters von Candia, *des Pisaner Papstes Alexanders V* (Münster: Aschendorff, 1925).

"Die Spiritualen, ihr Verhältnis zum Franziskanerorden und den Fraticellen," *Archiv für Literatur- und Kirchengeschichte des Mittelalters* 1 (1885) 509–69; 2 (1886) 106–64; 3 (1887) 553–623; 4 (1888) 1–190.

Ehlers, Joachim. *Hugo von St Victor: Studien zum Geschichtsdenken und der Geschichtsschreibung des 12. Jahrhunderts* (Wiesbaden: Steiner, 1973).

Eisen, Robert. *Gersonides on Providence, Covenant, and the Jewish People* (Albany: State University of New York Press, 1995).

Eisenberg, Y. "Reason and Emotion in *Duties of the Heart*," *Daat* 7 (1981) 5–35.

El-Bizri, Nader (ed.). *Epistles of the Brethren of the Purity. The Ikhwān al Ṣafāʾ and their* Rasāʾil: *An Introduction* (Oxford: Oxford University Press, 2008).

Elderidge, Laurence. "Changing Concepts of Church Authority in the Later Fourteenth Century: Pierre Ceffons of Clairvaux and William of Woodford, OFM," *Revue de l'Université d'Ottawa* 48 (1978) 170–8.

Elford, Dorothy. "William of Conches," in P. Dronke (ed.) *A History of Twelfth-Century Western Philosophy* (Cambridge: Cambridge University Press, 1988) 308–27.

Elie, Hubert. *Le complexe significabile* (Paris: Vrin, 1936).

Ellard, Peter. *The Sacred Cosmos: Theological, Philosophical, and Scientific Conversations in the Twelfth-Century School of Chartres* (Scranton, PA: University of Scranton Press, 2007).

Elm, Kaspar (ed.). *Bernhard von Clairvaux: Rezeption und Wirkung im Mittelalter und in der Neuzeit* (Wiesbaden: Harrassowitz, 1994).

Elshtain, Jean Bethke (ed.). *Just War Theory* (New York: New York University Press, 1992).

Emden, A. B. *A Biographical Register of the University of Oxford to A.D. 1500* (Oxford: Clarendon Press, 1957–9).

Emery, Gilles. "Dieu, la foi et la théologie chez Durand de Saint-Pourçain," *Revue Thomiste* 99 (1999) 659–99.

"La théologie trinitaire des *Evidentiae contra Durandum* de Durandellus," *Revue Thomiste* 97 (1997) 173–218.

Emery, Kent. "Reading the World Rightly and Squarely: Bonaventure's Doctrine of the Cardinal Virtues," *Traditio* 39 (1983) 183–218.

Endres, Josef. *Honorius Augustodunensis: Beitrag zur Geschichte des geistigen Lebens im 12. Jahrhundert* (Munich: Kempten, 1906).

"Manegold von Lautenbach, 'modernorum magister magistrorum'," *Historisches Jahrbuch* 25 (1904) 168–76.

Petrus Damiani und die weltliche Wissenschaft (Münster: Aschendorff, 1910).

Endress, Gerhard. *Der arabische Aristoteles und sein Leser: Physik und Theologie im Weltbild Alberts des Grossen* (Münster: Aschendorff, 2004).

"Averrois Opera: A Bibliography of Editions and Contributions to the Text," in J. A. Aertsen and G. Endress (eds.) *Averroes and the Aristotelian Tradition: Sources, Constitution, and Reception of the Philosophy of Ibn Rushd (1126–1198)* (Leiden: Brill, 1999) 339–81.

"Building the Library of Arabic Philosophy: Platonism and Aristotelianism in the Sources of al-Kindī," in C. D'Ancona (ed.) *The Libraries of the Neoplatonists* (Leiden: Brill, 2007) 319–50.

"The Circle of al-Kindi," in G. Endress and R. Kruk (eds.) *The Ancient Tradition in Christian and Islamic Hellenism* (Leiden: Research School CNWS, 1997) 43–76.

"Grammatik und Logik: arabische Philologie und griechische Philosophie im Widerstreit," in B. Mojsisch (ed.) *Sprachphilosophie in Antike und Mittelalter* (Amsterdam: Grüner, 1986) 163–299.

"Mathematics and Philosophy in Medieval Islam," in J. P. Hogendijk and A.I. Sabra (eds.) *The Enterprise of Science in Islam* (Cambridge: Cambridge University Press, 2003) 121–76.

"Mattā b. Yūnus," in H. A. R. Gibb *et al.* (eds.) *Encyclopaedia of Islam*, 2nd edn (Leiden: Brill, 1960–2004) VI: 844–6.

Proclus Arabus: zwanzig Abschnitte aus der Institutio theologica in arabischer Ubersetzung (Beirut: Orient-Institut der Deutschen Morgenländischen Gesellschaft, 1973).

"Die wissenschaftliche Literatur," in H. Gätje and W. Fischer (eds.) *Grundriss der Arabischen Philologie* (Wiesbaden: Reichert, 1987–92) II: 400–506, III: 3–152.

The Works of Yahya Ibn ʿAdi: An Analytical Inventory (Wiesbaden: Reichert, 1977).

Endress, Gerhard and Dimitri Gutas. *A Greek and Arabic Lexicon: Materials for a Dictionary of the Medieval Translations from Greek into Arabic* (Leiden: Brill, 1992–).

Engels, Joseph. "Thomas Cantimpratensis redivivus," *Vivarium* 12 (1974) 124–32.

Eppenstein, Simon. *Abraham Maimuni: sein Leben und seine Schriften* (Berlin: Louis Lamm Verlag, 1914).

Eran, Amira. "Abraham Ibn Daud's Definition of Substance and Accident," *Arabic Sciences and Philosophy* 7 (1997) 228–65.

Ermatinger, Charles. "Averroism in Early Fourteenth Century Bologna," *Mediaeval Studies* 16 (1954) 35–56.

"John of Jandun in his Relations with Arts Masters and Theologians," in *Arts libéraux et philosophie au moyen âge* (Montréal: Institut d'études médiévales, 1969) 1173–84.

Ermini, Giuseppe. *I trattati della guerra e della pace di Giovanni da Legnano* (Imola, 1923).

Etzkorn, Girard. "Franciscus de Mayronis: A Newly Discovered Treatise on Intuitive and Abstractive Cognition," *Franciscan Studies* 54 (1994–97) 15–50.

"The Grades of the Form according to Roger Marston, O.F.M.," *Franziskanische Studien* 44 (1962) 418–54.

"John of Reading on the Existence and Unicity of God, Efficient and Final Causality," *Franciscan Studies* 41 (1981) 125–221.

"John Pecham, O.F.M.: A Career of Controversy," in E. B. King *et al.* (eds.) *Monks, Nuns, and Friars in Mediaeval Society* (Sewanee, TN: Press of the University of the South, 1989) 71–82.

Etzkorn, Girard and Robert Andrews. "Tortosa Cathedral 88: A 'Thomas Wylton' Manuscript and the Question on the Compatibility of Multiple Accidents in the Same Subject," *Mediaevalia Philosophica Polonorum* 32 (1994) 57–99.

Etzwiler, James P. "Baconthorpe and Latin Averroism: The Doctrine of the Unique Intellect," *Carmelus* 18 (1971) 235–92.

"John Baconthorpe, 'Prince of the Averroists'," *Franciscan Studies* 36 (1976) 148–76.

"The Nature of Theological Knowledge According to Paul of Perugia, O.Carm. (*fl.* 1344)," *Carmelus* 34 (1987) 135–75.

Evans, G. R. *Alan of Lille: The Frontiers of Theology in the Later Twelfth Century* (Cambridge: Cambridge University Press, 1983).

Anselm (London: Chapman, 1989).

Anselm and Talking about God (Oxford: Clarendon Press, 1978).

Augustine on Evil (Cambridge: Cambridge University Press, 1982).

Bernard of Clairvaux (New York: Oxford University Press, 2000).

A Concordance to the Works of Saint Anselm (Millwood, NY: Kraus, 1984).

Fifty Key Medieval Thinkers (New York: Routledge, 2002).

John Wyclif: Myth and Reality (Downers Grove, IL: InterVarsity Press, 2005).

The Language and Logic of the Bible: The Earlier Middle Ages (Cambridge: Cambridge University Press, 1984).

(ed.). *Mediaeval Commentaries on the* Sentences *of Peter Lombard* (Leiden: Brill, 2002).

The Mind of St. Bernard of Clairvaux (Oxford: Clarendon Press, 1983).

"Why the Fall of Satan?," *Recherches de théologie ancienne et médiévale* 45 (1978) 130–46.

"A Work of 'Terminist Theology'? Peter the Chanter's *De tropis loquendi* and Some Fallacies," *Vivarium* 20 (1982) 40–58.

Fabro, Cornelio. *La nozione metafisica di partecipazione secondo S. Tommaso d'Aquino*, 3rd edn (Turin: Società editrice internazionale, 1963; repr. Segni: Editrice del Verbo Incarnato, 2005).

Participation et causalité selon S. Thomas d'Aquin (Leuven: Publications universitaires, 1961).

Fages, Pierre-Henri. *Histoire de Saint Vincent Ferrier, apôtre de l'Europe*, 2nd edn (Paris: Picard, 1901).

Fairweather, E. R. (ed.). *A Scholastic Miscellany: Anselm to Occam* (Philadelphia, PA: Westminster Press, 1956).

Faix, Gerhard. *Gabriel Biel und die Brüder vom Gemeinsamen Leben: Quellen und Untersuchungen zu Verfassung und Selbstverständnis des Oberdeutschen Generalkapitels* (Tübingen: Mohr, 1999).

Fakhry, Majid. *Al-Farabi: Founder of Islamic Neoplatonism: His Life, Works and Influence* (Oxford: Oneworld, 2002).

"The Classical Islamic Arguments for the Existence of God," *Muslim World* 47 (1957) 133–45.

Ethical Theories in Islam (Leiden: Brill, 1994).

A History of Islamic Philosophy (New York: Columbia University Press, 2004).

Faral, Edmond. "Les 'Responsiones' de Guillaume de Saint-Amour," *Archives d'histoire doctrinale et littéraire du moyen âge* 25–6 (1950–1) 337–94.

Farr, William E. *John Wyclif as Legal Reformer* (Leiden: Brill, 1974).

Farthing, John. *Thomas Aquinas and Gabriel Biel: Interpretation of St. Thomas Aquinas in German Nominalism on the Eve of the Reformation* (Durham, NC: Duke University Press, 1988).

Fedele, Pio. "Aequitas Canonica," *Apollinaris* 51 (1978) 415–38.

Federici Vescovini, Graziella. *Astrologia e scienza: la crisi dell'aristotelismo sul cadere del Trecento e Biagio Pelacani da Parma* (Florence: Vallecchi, 1979).

"La classification des mathématiques d'après le prologue de l'*Expositio super Theorica Planetarum* de l'averroiste Thaddée de Parme (Bologne, 1318)," in J. Hamesse (ed.) *Manuels, programmes de cours et techniques d'enseignement dans les universités médiévales* (Louvain-la-Neuve: Institut d'études médiévales de l'Université catholique de Louvain, 1994) 137–82.

"Il commento di Angelo di Fossambrone al *De tribus praedicamentis* di Guglielmo Heytesbury," in A. Maierù (ed.) *English Logic in Italy in the 14th and 15th Centuries* (Naples: Bibliopolis, 1982) 359–74.

"L'exorde de l'*Arithmetica* de Boèce et le Commentaire de l'avérroîste Thaddée de Parme (1318)," in E. Bonnefous and A. Galonnier (eds.) *Boèce ou la chaîne des savoirs* (Leuven: Éditions de l'Institut Supérieur de Philosophie, 2003) 57–71.

(ed.). *Filosofia, scienza e astrologia nel Trecento Europeo: Biagio Pelacani Parmense* (Padua: Il Poligrafo, 1992).

Feldman, Seymour. "Abravanel on Maimonides' Critique of the Kalam," *Maimonidean Studies* 1 (1990) 5–25.

"A Debate Concerning Determinism in Late Medieval Jewish Philosophy," *Proceedings of the American Academy for Jewish Research* 51 (1984) 15–54.

"The Theory of Eternal Creation in Hasdai Crescas and Some of his Predecessors," *Viator* 11 (1980) 289–320.

Felten, Franz J. (ed.). *Hrabanus Maurus: Gelehrter, Abt von Fulda, und Erzbischof von Mainz* (Mainz: Publikationen Bistum Mainz, 2006).

Fenton, Paul. *Philosophie et exégèse dans* Le Jardin de la métaphore *de Moïse Ibn ʿEzra* (Leiden: Brill, 1997).

Ferrari, Cleophea. "Der Duft des Apfels: Abū l-Faraj ʿAbdallāh ibn aṭ-Ṭayyib und sein Kommentar zu den *Kategorien* des Aristoteles," in V. Celluprica and C. D'Ancona Costa (eds.) *Aristotele e i suoi esegeti neoplatonici* (Napoli: Bibliopolis, 2004) 85–106.

Ferrari, Sante. *I tempi, la vita, le dottrine di Pietro d'Abano: Saggio storico-filosofico* (Genoa: Tipografia R. Istituto Sordomuti, 1900).

Ferruolo, Stephen. *The Origins of the University: The Schools of Paris and their Critics 1100–1215* (Stanford, CA: Stanford University Press, 1985).

Fichtenau, Heinrich. "Magister Petrus von Wien," *Beiträge zur Mediävistik* 1 (1975) 218–38.

Fidora, Alexander. *Die Wissenschaftstheorie des Dominicus Gundissalinus: Voraussetzungen und Konsequenzen des zweiten Anfangs der aristotelischen Philosophie im 12. Jahrhundert* (Berlin: Akademie-Verlag, 2003).

Fidora, Alexander and Maria Jesus Soto Bruna. "'Gundisalvus' ou 'Dominicus Gundisalvi'? Algunas observaciones sobre un reciente articulo de Adeline Rucquoi," *Estudios eclesiasticos* 76 (2001) 467–73.

Filthaut, Ephrem. *Roland von Cremona und die Anfänge der Scholastik im Predigerorden: ein Beitrag zur Geistesgeschichte der älteren Dominikaner* (Vechta i.O.: Albertus Magnus Verlag der Dominikaner, 1936).

(ed.). *Seuse-Studien: Heinrich Seuse, Studien zum 600. Todestag, 1366–1966* (Cologne: Albertus Magnus Verlag, 1966).

Finkelstein, L. (ed.) *Rab Saadia Gaon* (New York: Arno Press, 1944; repr. 1988).

Finnegan, Mary. *The Women of Helfta: Scholars and Mystics* (Athens: University of Georgia Press, 1991).

Finnis, John. *Aquinas: Moral, Political, and Legal Theory* (Oxford: Oxford University Press, 1998).

(ed.). *Natural Law* (Aldershot: Ashgate, 1991).

Natural Law and Natural Rights (Oxford: Clarendon Press, 1979).

Fisher, John. "Hugh of St. Cher and the Development of Mediaeval Theology," *Speculum* 31 (1956) 57–69.

Fitzpatrick, Noel. "Walter Chatton on the Univocity of Being: A Reaction to Peter Aureoli and William Ockham," *Franciscan Studies* 31 (1971) 88–177.

Flasch, Kurt. *Aufklärung im Mittelalter? Die Verurteilung von 1277* (Mainz: Dieterich, 1989).

Nikolaus von Kues: Geschichte einer Entwicklung: Vorlesungen zur Einführung in seine Philosophie (Frankfurt: Klostermann, 1998).

(ed.). *Von Meister Dietrich zu Meister Eckhart* (Hamburg: Meiner, 1987).

Fleming, John. "The 'Collations' of William of Saint-Amour against S. Thomas," *Recherches de théologie ancienne et médiévale* 32 (1965) 132–8.

Fletcher, J. M. "The Faculty of Arts," in J. I. Catto *et al.* (eds.) *The History of the University of Oxford* (Oxford: Clarendon Press, 1984) 369–99.

Flint, V. I. J. *Honorius Augustodunensis of Regensburg* (Aldershot: Variorum, 1995).

"The 'School of Laon': A Reconsideration," *Recherches de théologie ancienne et médiévale* 43 (1976) 89–110.

Flood, David. "Assisi's Rules and People's Needs," *Franzikanische Studien* 66 (1984) 91–104.

Francis of Assisi and the Franciscan Movement (Quezon City, Philippines: FIA Contact Publications, 1989).

Flores, Juan Carlos. *Henry of Ghent: Metaphysics and the Trinity* (Leuven: Leuven University Press, 2006).

Fontaine, Jacques. "Education and Learning," in P. Fouracre (ed.) *The New Cambridge Medieval History*, vol. I: *c.500–c.700* (Cambridge: Cambridge University Press, 2005) 735–59.

Isidore de Séville et la culture classique dans l'Espagne wisigothique, 2nd edn (Paris: Études Augustiniennes, 1984).

Tradition et actualité chez Isidore de Séville (London: Variorum, 1988).

Fontaine, Resianne. "Abraham Ibn Daud's Polemics against Muslims and Christians," in B. Roggema *et al.* (eds.) *The Three Rings, Textual Studies in the Historical Trialogue of Judaism, Christianity, and Islam* (Leuven: Peeters, 2005).

In Defence of Judaism: Abraham Ibn Daud. Sources and Structure of ha-Emunah ha-Ramah (Assen: Van Gorcum, 1990).

Forhan, Kate L. *The Political Theory of Christine de Pizan* (Aldershot: Ashgate, 2002).

Forster, Karl. *Die Verteidigung der Lehre des heiligen Thomas von der Gottesschau durch Johannes Capreolus* (Munich: Karl Zink, 1955).

Forster, Regula. *Das Geheimnis der Geheimnisse: die arabischen und deutschen Fassungen des pseudo-aristotelischen* Sirr al-asrār */ Secretum secretorum* (Wiesbaden: Reichert, 2006).

Fortenbaugh, William. *Aristotle on Emotion*, 2nd edn (London: Duckworth, 2003).

Fortin, John R. *Clarembald of Arras as a Boethian Commentator* (Kirksville, MO: Thomas Jefferson University Press, 1995).

Fournier, Paul. "Le cardinal Guillaume de Peyre de Godin," *Bibliothèque de l'école des chartes* 86 (1925) 100–21.

Fox, Marvin. *Interpreting Maimonides: Studies in Methodology, Metaphysics, and Moral Philosophy* (Chicago: University of Chicago Press, 1990).

Fraisse, Otfried. *Moses Ibn Tibbons Kommentar zum Hohenlied und sein poetologisch-philosophisches Programm* (Berlin: De Gruyter, 2004).

Francis, Raymond. *Natural Law and Positive Law* (Washington, DC: Catholic University of America Press, 1959).

Franco, Abel. "Avempace, Projectile Motion, and Impetus Theory," *Journal of the History of Ideas* 64 (2004) 521–46.

Frank, Daniel H. "Anger as a Vice: A Maimonidean Critique of Aristotle's Ethics," *History of Philosophy Quarterly* 7 (1990) 269–81.

"Maimonides and Medieval Jewish Aristotelianism," in D Frank and O. Leaman (eds.) *Cambridge Companion to Medieval Jewish Philosophy* (Cambridge: Cambridge University Press, 2003) 136–56.

Frank, Daniel H. and Oliver Leaman (eds.). *Cambridge Companion to Medieval Jewish Philosophy* (Cambridge: Cambridge University Press, 2003).

(eds). *History of Jewish Philosophy* (London: Routledge, 1996).

Frank, Daniel H., Oliver Leaman, and Charles Manekin (eds.). *A Reader in Jewish Philosophy* (London: Routledge, 2000).

Frank, Richard M. "The Ashʿarite Ontology I: Primary Entities," *Arabic Sciences and Philosophy* 9 (1999) 165–231.

"Attribute, Attribution, and Being: Three Islamic Views," in P. Morewedge (ed.) *Philosophies of Existence Ancient and Medieval* (New York: Fordham University Press, 1982) 258–78.

"The Autonomy of the Human Agent in the Teaching of ʿAbd al-Jabbār," *Le Muséon* 95 (1982) 323–55.

"Can God Do What Is Wrong?," in T. Rudavsky (ed.) *Divine Omniscience and Omnipotence in Medieval Philosophy: Islamic, Jewish, and Christian Perspectives* (Dordrecht: Reidel, 1985) 69–79.

Creation and the Cosmic System: al-Ghazâlî and Avicenna (Heidelberg: Carl Winter Universitätsverlag, 1992).

Al-Ghazali and the Ashʿarite School (Durham, NC: Duke University Press, 1994).

Islamic Mysticism, Theology, and Philosophy: Texts and Studies on the Development of Kalam, ed. D. Gutas (Aldershot: Ashgate, 2005).

The Metaphysics of Created Being According to Abū al-Hudhayl al-ʿAllāf: A Philosophical Study of the Earliest Kalām (Istanbul: Nederlands Historisch-Archaeologisch Instituut in het Nabije Oosten, 1966).

"The Neoplatonism of Ğahm ibn Ṣafwān," *Le Muséon* 78 (1965) 395–424.

"The Use of the Enneads by John of Scythopolis," *Le Muséon* 100 (1987) 101–8.

Frank, William. "Duns Scotus on Autonomous Freedom and Divine Co-Causality," *Medieval Philosophy and Theology* 2 (1992) 142–64.

Frank, William and Allan B. Wolter. *Duns Scotus, Metaphysician* (West Lafayette, IN: Purdue University Press, 1995).

Fransen, Gérard. *Décrétales et les collections de décrétales* (Turnhout: Brepols, 1972).

Fraser, Kyle A. "Demonstrative Science and the Science of Being *qua* Being," *Oxford Studies in Ancient Philosophy* 22 (2002) 43–82.

Fredborg, Karin M. "Abelard on Rhetoric," in C. J. Mews *et al.* (eds.) *Rhetoric and Renewal in the Latin West 1100–1540: Essays in Honour of John O. Ward* (Leiden; Brill, 2003) 55–80.

"The Commentaries on Cicero's *De Inventione* and *Rhetorica ad Herennium* by William of Champeaux," *Cahiers de l'Institut du Moyen Age Grec et Latin* 17 (1976) 1–39.

"The Dependence of Petrus Helias' *Summa super Priscianum* on William of Conches' *Glose super Priscianum*," *Cahiers de l'Institut du Moyen Age Grec et Latin* 11 (1973) 1–57.

"Petrus Helias on Rhetoric," *Cahiers de l'Institut du Moyen Age Grec et Latin* 13 (1974) 31–41.

"The Priscian Commentary from the second half of the Twelfth Century: Ms Leiden BPL 154," *Histoire Epistémologie Langage* 12 (1990) 53–68.

"The Promisimus," in S. Ebbesen and R. L. Friedman (eds.) *Medieval Analyses in Language and Cognition* (Copenhagen: Royal Academy, 1999) 191–205.

"Some Notes on the Grammar of William of Conches," *Cahiers de l'Institut du Moyen Age Grec et Latin* 37 (1980) 21–41.

"Speculative Grammar," in P. Dronke (ed.) *A History of Twelfth-Century Western Philosophy* (Cambridge: Cambridge University Press, 1988) 177–95.

"Tractatus Glosarum Prisciani in Ms. Vat. Lat. 1486," *Cahiers de l'Institut du Moyen Age Grec et Latin* 21 (1977) 27–44.

"Universal Grammar According to Some Twelfth c. Grammarians," *Historiographia Linguistica* 7 (1980) 69–83.

Fredborg Karin M. and C. H. Kneepkens. "Grammatica Porretana," *Cahiers de l'Institut du Moyen Age Grec et Latin* 57 (1988) 11–67.

Frede, Dorothea. "On Mixture and Mixables," in J. Mansfeld and F. de Haas (eds.) *Aristotle: On Generation and Corruption, Book I* (Oxford: Clarendon Press, 2004) 289–314.

Freeman, Ann. *Theodulf of Orléans: Charlemagne's Spokesman against the Second Council of Nicaea* (Aldershot: Ashgate, 2003).

Freppert, Lucan. *The Basis of Morality According to William Ockham* (Chicago: Franciscan Herald Press, 1988).

Freudenthal, Gad. "Les Sciences dans les communautés juives médiévales de Provence: leur appropriation, leur rôle," *Revue des Études Juives* 152 (1993) 29–136.

(ed.). *Studies on Gersonides: A Fourteenth-Century Jewish Philosopher-Scientist* (Leiden: Brill, 1992).

Friedländer, Michael. *Essays on the Writings of Abraham ibn Ezra* (London: Society of Hebrew Literature, 1877; repr. Jerusalem: Mitshuf, 1963).

Friedman, Russell L. "Andreas de Novocastro (*fl.* 1358) on Divine Omnipotence and the Nature of the Past: I *Sentences*, Distinction Forty Five, Question Six," *Cahiers de l'Institut du Moyen Age Grec et Latin* 64 (1994) 101–50.

"Dominican Quodlibetal Literature, *ca.* 1260–1330," in C. Schabel (ed.) *Theological Quodlibeta in the Middle Ages: The Fourteenth Century* (Leiden: Brill, 2007) 401–91.

Intellectual Traditions in the Medieval University: The Use of Philosophical Psychology in Trinitarian Theology among the Franciscans and Dominicans, 1250–1350 (Leiden: Brill, 2008).

"Peter Auriol on Intentions and Essential Predication," in S. Ebbesen and R. L. Friedman (eds.) *Medieval Analyses in Language and Cognition* (Copenhagen: Royal Danish Academy of Sciences and Letters, 1999) 415–30.

"Trinitarian Theology and Philosophical Issues: Trinitarian Texts from the Late Thirteenth and Early Fourteenth Centuries," *Cahiers de l'Institut du Moyen Age Grec et Latin* 72 (2001) 89–168.

Friedman, Russell L. and Lauge Nielsen (eds.). Special issue on Peter Auriol, *Vivarium* 38 (2000).

Friedman, Russell L. and Chris Schabel (eds.). *Francis of Marchia, Theologian and Philosopher: A Franciscan at the University of Paris in the Early Fourteenth Century* (Leiden: Brill, 2006).

"Francis of Marchia's Commentaries on the Sentences: Question List and State of Research," *Mediaeval Studies* 63 (2001) 31–106.

Frugoni, Chiara. "Female Mystics, Visions, and Iconography," in D. Bornstein and R. Rusconi (eds.) *Women and Religion in Medieval and Renaissance Italy* (Chicago: University of Chicago Press, 1996) 130–64.

Fumagalli Beonio Brocchieri, Maria Teresa. *Durando di S. Porziano. Elementi filosofici della terza redazione del 'Commento alle Sentenze'* (Florence: La Nuova Italia, 1969).

Fumagalli Beonio Brocchieri, Maria Teresa and Stefano Simonetta (eds.). *John Wyclif: logica, teologia, politica* (Florence: SISMEL, Edizioni del Galluzzo, 2003).

Furlani, Giuseppe. "Di una presunte versione araba di alcuni scritti di Porfirio e di Aristotele," *Rendiconti della R. Accademia Nazionale dei Lincei (Classe di sc. mor., stor., e filol.)* 6 (1926) 205–13.

Fussenegger, Geroldus. "'Littera septem sigillorum' contra doctrinam Petri Ioannis Olivi edita," *Archivum franciscanum historicum* 47 (1954) 45–53.

Gabbay, Dov M. and John Woods (eds.). *Handbook to the History of Logic*, vol. II (Amsterdam: Elsevier, 2008).

Gabler, Darius. *Die semantischen und syntaktischen Funktionen im Tractatus "De modis significandi sive grammatica speculativa" des Thomas von Erfurt: die Probleme der mittelalterlichen Semiotik* (Bern: Lang, 1987).

Gabriel, Astrik. *The Educational Ideas of Vincent of Beauvais* (Notre Dame, IN: Mediaeval Institute, University of Notre Dame, 1956).

  Vinzenz von Beauvais, ein mittelalterlicher Erzieher (Frankfurt: Knecht, 1967).

Gabrieli, Francesco. "L'opera di Ibn al-Muqaffaʿ," *Rivista degli Studi Orientali* 13 (1931–2) 197–247.

Gál, Gedeon. "Gulielmi de Ware, O.F.M. doctrina philosophica per summa capita proposita," *Franciscan Studies* 14 (1954) 155–80, 265–92.

  "Opiniones Richardi Rufi Cornubiensis a Censore Reprobatae," *Franciscan Studies* 35 (1975) 136–93.

  "Petrus Thomae's Proof for the Existence of God," *Franciscan Studies* 56 (1998) 115–51.

  "Quaestio Ioannis de Reading de necessitate specierum intelligibilium: defensio doctrinae Scoti," *Franciscan Studies* 29 (1969) 66–156.

  "Viae ad exsistentiam Dei probandum in doctrina Richari Rufi," *Franziskanische Studien* 38 (1956) 177–202.

Gál, Gedeon and Rega Wood. "Richard Brinkley and his *Summa logicae*," *Franciscan Studies* 40 (1980) 59–101.

Gallagher, Clarence. *Canon Law and the Christian Community: The Role of Law in the* Summa aurea *of Cardinal Hostiensis* (Rome: Università Gregoriana, 1978).

Gallagher, David M. "Free Choice and Free Judgment in Thomas Aquinas," *Archiv für Geschichte der Philosophie* 76 (1994) 247–77.

Galle, Griet. "A Comprehensive Bibliography on Peter of Auvergne," *Bulletin de philosophie médiévale* 42 (2000) 53–79; 47 (2005) 87–96.

  "Peter of Auvergne on the Unicity of the World," *Recherches de théologie ancienne et médiévale* 68 (2001) 111–41.

  "Peter of Auvergne's Question as to Whether or Not the Heaven is Generated and Perishable," in J. Aertsen *et al.* (eds.) *Nach der Verurteilung von 1277: Philosophie und Theologie an der Universität von Paris im letzten Viertel des 13. Jahrhunderts: Studien und Texte* (Berlin: De Gruyter, 2001) 535–76.

Galonnier, Alain. *Boèce. Opuscula sacra* (Leuven: Peeters, 2007).

Galston, Miriam. *Politics and Excellence: The Political Philosophy of Alfarabi* (Princeton, NJ: Princeton University Press, 1990).

Gambra, José Miguel. "El compromiso de existencia y la teoría de la predicación en la obra de Gualterio Burley," *Archives d'histoire doctrinale et littéraire du moyen âge* 63 (1996) 139–70.

Gammersbach, Suitbert. *Gilbert von Poitiers und seine Prozesse im Urteil der Zeitgenossen* (Cologne: Böhlau, 1959).

Ganz, David. "The Debate on Predestination," in M. T. Gibson and J. L. Nelson (eds.) *Charles the Bald: Court and Kingdom*, 2nd edn (Aldershot: Variorum, 1990) 283–302.

  "Theology and the Organisation of Thought," in R. McKitterick (ed.) *The New Cambridge Medieval History*, vol. II: *c. 700– c. 900* (Cambridge: Cambridge University Press, 1995) 758–85.

Garber, Daniel. "Defending Aristotle/Defending Society in Early 17th C Paris," in C. Zittel and W. Detel (eds.) *Wissensideale und Wissenskulturen in der frühen Neuzeit* (Berlin: Akademie-Verlag, 2002) 135–60.

   Descartes Embodied (Cambridge: Cambridge University Press, 2001).

   Descartes' Metaphysical Physics (Chicago: University of Chicago Press, 1992).

García Lescún, Eliseo. *La teología trinitaria de Gregorio de Rimini: Contribución a la historia de la escolástica tardía* (Burgos: Ediciones Aldecos, 1970).

Garcías Palou, Sebastián. *Ramon Llull y el Islam* (Palma de Mallorca: Gráficas Planisi, 1981).

Garnett, George. *Marsilius of Padua and 'The Truth of History'* (Oxford: Oxford University Press, 2006).

Gaskin, Richard. "Peter Damian on Divine Power and the Contingency of the Past," *British Journal for the History of Philosophy* 5 (1997) 229–47.

Gaudemet, Jean. *Le Mariage en Occident: les mœurs et le droit* (Paris: Cerf, 1987).

Gaughan, William. *The Social Theories of Saint Antoninus from the* Summa Theologica (Washington, DC: Catholic University of America Press, 1951).

Gauthier, Léon. *Ibn Thofäil, sa vie, ses œuvres* (Paris: Leroux, 1909; repr. Paris: Vrin, 1983).

Gauthier, René-Antoine. "Notes sur les débuts (1225–1240) du premier 'averroïsme'," *Revue des sciences philosophiques et théologiques* 66 (1982) 322–73.

   "Notes sur Siger de Brabant," *Revue des sciences philosophiques et théologiques* 67 (1983) 201–32; 68 (1984) 3–49.

   "Les 'Questiones supra librum Ethicorum' de Pierre d'Auvergne," *Revue du Moyen Age Latin* 20 (1964) 233–60.

Gauvard, Claude, Alain de Libera, and Michel Zink (eds.). *Dictionnaire du Moyen Age* (Paris: Presses universitaires de France, 2002).

Geach, Peter. "Assertion," *Philosophical Review* 69 (1960) 221–5.

Geanakoplos, Deno J. "Theodore Gaza, a Byzantine Scholar of the Palaeologan 'Renaissance' in the Italian Renaissance," in *Constantinople and the West* (Madison: University of Wisconsin Press, 1989) 68–90.

Geiger, Louis-Bertrand. *La participation dans la philosophie de S. Thomas d'Aquin* (Paris: Vrin, 1942; 2nd edn 1953).

Gelber, Hester Goodenough. "Eternal Questions: The Dominican Hugh of Lawton on the Eternity of the World," in M. Asztalos *et al.* (eds.) *Knowledge and the Sciences in Medieval Philosophy: Proceedings of the Eighth International Congress of Medieval Philosophy* (Helsinki: Yliopistopaino, 1990) III: 71–8.

   "I Cannot Tell a Lie: Hugh of Lawton's Critique of William of Ockham on Mental Language," *Franciscan Studies* 44 (1984) 141–79.

   It Could Have Been Otherwise: Contingency and Necessity in Dominican Theology at Oxford 1300–1350 (Leiden: Brill, 2004).

   "Logic and the Trinity: A Clash of Values in Scholastic Thought, 1300–1335" (Ph.D. dissertation: University of Wisconsin, 1974).

   "Ockham's Early Influence: A Question about Predestination and Foreknowledge by Arnold of Strelley, O.P.," *Archives d'histoire doctrinale et littéraire du moyen âge* 55 (1988) 271–89.

Gendreau, Bernard. "The Quest for Certainty in Bonaventure," *Franciscan Studies* 21 (1961) 104–227.

Genest, Jean-François. "Aux origines d'une casuistique. La révélation des futurs contingents d'après la lecture de Richard Fitzralph sur les *Sentences*," *Archives d'histoire doctrinale et littéraire du moyen âge* 69 (2002) 239–98.

"Contingence et révélation des futurs: la *quaestio biblica* de Richard FitzRalph," in J. Jolivet *et al.* (eds.) *Lectionum varietates: hommage à Paul Vignaux* (Paris: Vrin, 1991) 199–246.

"Pierre de Ceffons et l'hypothèse du Dieu trompeur," in Z. Kaluza and P. Vignaux (eds.) *Preuve et raisons à l'Université de Paris: logique, ontologie et théologie au XIV* siècle* (Paris: Vrin, 1984) 197–214.

Prédétermination et liberté crée à Oxford au XIV siècle: Buckingham contra Bradwardine* (Paris: Vrin, 1992).

Genest, Jean-François and Katherine Tachau. "La lecture de Thomas Bradwardine sur les Sentences," *Archives d'histoire doctrinale et littéraire du moyen âge* 57 (1990) 301–6.

Gensler, Marek. "Catalogue of Works by or Ascribed to Antonius Andreae," *Mediaevalia Philosophica Polonorum* 31 (1992) 149–50.

"The Concept of the Individual in the *Sentences* Commentary of Antonius Andreae," in J. Aertsen and A. Speer (eds.) *Individuum und Individualität im Mittelalter* (Berlin: De Gruyter, 1996) 305–12.

George, Robert (ed.). *Natural Law* (Aldershot: Ashgate, 2003).

Georgiopoulou, Sophia. "Theodore II Dukas Laskaris (1222–1258) as an Author and an Intellectual of the XIIIth Century" (Ph.D. dissertation: Harvard University, 1990).

Georr, Khalil. *Les Catégories d'Aristote dans leurs versions syro-arabes* (Beirut: Institut français de Damas, 1948).

Germann, Nadja. *De temporum ratione: Quadrivium und Gotteserkenntnis am Beispiel Abbos von Fleury und Hermanns von Reichenau* (Leiden: Brill, 2006).

"Zwischen *veritas naturae* und *fides historiae*. Zeit und Dauer bei Abbo von Fleury," in A. Speer (ed.) *Das Sein der Dauer* (*Miscellanea Mediaevalia* 34) (Berlin: De Gruyter, 2008) 171–95.

Gersh, Stephen. *Middle Platonism and Neoplatonism: The Latin Tradition* (Notre Dame, IN: University of Notre Dame Press, 1986).

Gerwing, Manfred. *Vom Ende der Zeit: der Traktat des Arnald von Villanova über die Ankunft des Antichrist in der akademischen Auseinandersetzung zu Beginn des 14. Jahrhunderts* (Münster: Aschendorff, 1996).

Gewirth, Alan. *Marsilius of Padua and Medieval Political Philosophy* (New York: Columbia University Press, 1951).

"Republicanism and Absolutism in the Thought of Marsilius of Padua," *Medioevo* 5 (1979) 23–48.

Geyer, Bernhard. *Die Albert dem Grossen zugeschriebene* Summa naturalium (Philosophia pauperum)*: Texte und Untersuchungen* (Münster: Aschendorff, 1938).

Gherxetti, Antonella. *Il Kitāb Arisṭāṭalīs al-faylasūf nella traduzione di Ḥunayn b. Isḥāq* (Freiburg: Herder, 1999).

Ghisalberti, Alberto M. (ed.). *Dizionario biografico degli Italiani* (Rome: Istituto della Enciclopedia Italiana, 1960–).

Ghosh, Kantik. *The Wycliffite Heresy* (Cambridge: Cambridge University Press, 2001).

Gianazza, Egidio and Giorgio D'Ilario. *La vita e le opere di Giovanni da Legnano (sec. XIV)* (Legnano: Landoni, 1983).

Gibb, H. A. R. *et al.* (eds.). *Encyclopaedia of Islam*, 2nd edn (Leiden: Brill, 1960–2004).

Gibson, Margaret. "The Collected Works on Priscian: The Printed Editions 1470–1859," *Studi Medievali* 18 (1979) 249–60.

"The Early Scholastic Glosule to Priscian, *Institutiones Grammaticae*: The Text and its Influence," *Studi Medievali* 1 (1979) 35–54.

Lanfranc of Bec (Oxford: Clarendon Press, 1978).

Gieben, Servus. "Bibliographia Oliviana (1885–1967)," *Collectanea Franciscana* 38 (1968) 167–95.

"Bibliographia Universa Roberti Grosseteste ab an. 1473 ad an. 1969," *Collectanea Franciscana* 39 (1969) 362–418.

"Four Chapters on Philosophical Errors from the *Rudimentum Doctrinae* of Gilbert of Tournai," *Vivarium* 1 (1963) 141–66.

"Robertus Grosseteste: Bibliographia 1970–91," in J. McEvoy (ed.) *Robert Grosseteste: New Perspectives on his Thought and Scholarship* (Turnhout: Brepols, 1995).

Giet, Stanislas. "La doctrine de l'appropriation des biens chez quelques-uns des pères," *Recherches de science religieuse* 35 (1948) 55–91.

Giffen, Lois. *Theory of Profane Love among the Arabs* (New York: New York University Press, 1971).

Gilbert, Neal. "Ockham, Wyclif, and the 'Via Moderna'," *Miscellanea Mediaevalia* 9 (1974) 85–125.

Gillespie, Richard. "Robert Holcot's Quodlibeta," *Traditio* 27 (1971) 480–90.

Gillespie, Vincent. "*Doctrina* and *Predicacio*: The Design and Function of Some Pastoral Manuals," *Leeds Studies in English* (1980) 36–50.

Gillet, Martin Stanislas. *Beatus Innocentius PP. V (Petrus de Tarantasia O.P.): Studia et documenta* (Rome: Ad S. Sabinae, 1953).

Gillispie, Charles C. (ed.). *Dictionary of Scientific Biography* (New York: Scribner, 1970–80).

Gilson, Étienne. "Avicenne en occident au moyen-âge," *Archives d'histoire doctrinale et littéraire du moyen âge* 36 (1969) 89–121.

Dante and Philosophy, ed. D. Moore (London: Vrin, 1949).

History of Christian Philosophy in the Middle Ages (New York: Random House, 1955).

The Mystical Theology of St. Bernard, ed. A. H. C. Downes (New York: Sheed and Ward, 1940; repr. Kalamazoo, MI: Cistercian Publications, 1990).

"La notion d'existence chez Guillaume d'Auvergne," *Archives d'histoire doctrinale et littéraire du moyen âge* 15 (1946) 55–91.

The Philosophy of St. Bonaventure, tr. I. Trethowan and F. Sheed (Paterson, NJ: St. Anthony Guild, 1965).

"Pourquoi saint Thomas a critiqué saint Augustin," *Archives d'histoire doctrinale et littéraire du moyen âge* 1 (1926–7) 5–127.

"Roger Marston, un cas d'augustinisme avicennisant," *Archives d'histoire doctrinale et littéraire du moyen âge* 8 (1933) 37–42.

"Les sources gréco-arabes de l'augustinisme avicennisant," *Archives d'histoire doctrinale et littéraire du moyen âge* 4 (1929–30) 5–149.

Le thomisme: introduction au système de Saint Thomas d'Aquin (Strasbourg: Vix, 1919; 6th edn Paris: Vrin, 1983).

Gil-Sotres, Pedro. "Modelo teórico y observación clínica: las pasiones del alma en la psicología medica medieval," in *Comprendre et maîtriser la nature au Moyen Age: Mélanges d'histoire des sciences offerts à Guy Beaujouan* (Geneva: Droz, 1994) 181–204.

Gimaret, Daniel. *La doctrine d'al-Ashʿarī* (Paris: Cerf, 1990).

"Matériaux pour une bibliographie des Ǧubbāʾī," *Journal asiatique* 264 (1976) 277–332.

"Muʿtazila," in P. Bearman *et al.* (eds.) *Encyclopaedia of Islam*, new edn (Leiden: Brill Online, 1993) VII: 783–93.

"La théorie des aḥwāl d'Abū Hāšim Al-Ǧubbāʾī," *Journal asiatique* 258 (1970) 47–86.

Giocarinis, Kimon. "Eustratios of Nicaea's Defence of the Doctrine of Ideas," *Franciscan Studies* 24 (1964) 159–204.

Girolimon, Michael T. "Hugh of St Victor's *De sacramentis Christianae fidei*," *Journal of Religious History* 18 (1994) 127–38.

Glasner, Ruth. "Levi ben Gershom and the Study of Ibn Rushd in the Fourteenth Century," *Jewish Quarterly Review* 86 (1995) 51–90.

Glauche, Günter. *Schullektüre im Mittelalter: Entstehung und Wandlungen des Lektürekanons bis 1200 nach den Quellen dargestellt* (Munich: Arbeo-Gesellschaft, 1970).

Glorieux, Palémon. "Le *De gradibus formarum* de Guillaume de Falgar, OFM," *Recherches de théologie ancienne et médiévale* 24 (1957) 296–319.

"Jean Quidort et la distinction réelle de l'essence et de l'existence," *Recherches de théologie ancienne et médiévale* 18 (1951) 151–7.

La littérature quodlibétique de 1260 à 1320 (Paris: Vrin, 1925–35).

"Maîtres franciscains de Paris: Fr. Eustache," *La France Franciscaine* 13 (1930) 125–71.

"Peut-on identifier P. de Ang.?," *Recherches de théologie ancienne et médiévale* 27 (1960) 148–53.

Répertoire des maîtres en théologie de Paris au XIIIᵉ siècle (Paris: Vrin, 1933).

Gnädinger, Louise. *Johannes Tauler, Lebenswelt und mystische Lehre* (Munich: Beck, 1993).

Godart, G. C. "'Philosophy' or 'Religion'? The Confrontation with Foreign Categories in Late Nineteenth-Century Japan," *Journal of the History of Ideas* 69 (2008) 71–91.

Goddu, André. *The Physics of William of Ockham* (Leiden: Brill, 1984).

Goering, Joseph. "The Internal Forum and the Literature of Penance and Confession," *Traditio* 59 (2004) 175–227.

"Robert Grosseteste at the Papal Curia," in J. Brown and W. Stoneman (eds.) *A Distinct Voice: Medieval Studies in Honor of Leonard E. Boyle O.P.* (Notre Dame, IN: University of Notre Dame Press, 1997) 253–76.

William de Montibus (c. 1140–1213): The Schools and the Literature of Pastoral Care (Toronto: Pontifical Institute of Medieval Studies, 1992).

Goitein, Shlomo Dov. "Abraham Maimonides and his Pietist Circle," in A. Altmann (ed.) *Jewish Medieval and Renaissance Studies* (Cambridge, MA: Harvard University Press, 1967) 145–64.

Goldstein, B. R. "Astronomy and Astrology in the Works of Abraham ibn Ezra," *Arabic Sciences and Philosophy* 6 (1996) 9–21.

Gómez Caffarena, José. *Ser participado y ser subsistente e la metafísica de Enrique de Gante* (Rome: Pontificia Università Gregoriana, 1958).

Gómez-Lobo, Alfonso. "Aristotle's First Philosophy and the Principles of Particular Disciplines," *Zeitschrift für philosophische Forschung* 32 (1978) 183–94.

Gondras, Alexandre Jean. "Un commentaire avignonnais sur le *Liber de sex principiis* attribué à 'Maître Vital'," *Archives d'histoire doctrinale et littéraire du moyen âge* 42 (1975) 196–317.

"Guillaume de Falegar. Œuvre inédites," *Archives d'histoire doctrinale et littéraire du moyen âge* 39 (1972) 185–288.

Gonsette, J. *Pierre Damien et la culture profane* (Leuven: Publications universitaires, 1956).

Goodman, Lenn E. *Avicenna* (London: Routledge, 1992; rev. edn Ithaca, NY: Cornell University Press, 2006).

"Bahya on the Antinomy of Free Will and Predestination," *Journal of the History of Ideas* 44 (1983) 115–30.

God of Abraham (New York: Oxford University Press, 1996).

Islamic Humanism (New York: Oxford University Press, 2003).

(ed.). *Neoplatonism and Jewish Thought* (Albany, NY: State University of New York Press, 1992).

Rambam: Readings in the Philosophy of Moses Maimonides (New York: Viking, 1976).

"Rāzī vs Rāzī: Philosophy in the Majlis," in H. Lazarus-Yafeh *et al.* (eds.) *The Majlis: Interreligious Encounters in Medieval Islam* (Wiesbaden: Harrassowitz, 1999) 84–107.

"Razi's Myth of the Fall of the Soul: Its Function in his Philosophy," in G. Hourani (ed.) *Essays in Islamic Philosophy and Science* (Albany, NY: State University of New York Press, 1975) 25–40.

"Razi's Psychology," *Philosophical Forum* 4 (1972) 26–48.

"Saadiah Gaon's Interpretive Technique in Translating the Book of Job," in *Translating Scripture* (*Jewish Quarterly Review* supplement) (Philadelphia, PA: Annenberg Research Institute, 1990) 47–76.

Goris, Harm. *Free Creatures of an Eternal God. Thomas Aquinas on God's Infallible Foreknowledge and Irresistible Will* (Leuven: Peeters, 1996).

Goris, Wouter. "La critique de Richard de Conington par Robert de Walsingham," *Archives d'histoire doctrinale et littéraire du moyen âge* 67 (2000) 269–93.

Einheit als Prinzip und Ziel: Versuch über die Einheitsmetaphysik des Opus tripartitum *Meister Eckharts* (Leiden: Brill, 1997).

"Implicit Knowledge – Being as First Known in Peter of Oriel," *Recherches de théologie et philosophie médiévales* 69 (2002) 33–65.

"Die Kritik des Bernhard von Trilia an der Lehre von Gott als Ersterkanntem: Einleitung und Textausgabe," *Recherches de théologie et philosophie médiévales* 65 (1998) 248–319.

Goris, Wouter and Martin Pickavé. "Die 'Lectura Thomasina' des Guilelmus Petri de Godino (*ca.* 1260–1336)," in J. Hamesse (ed.) *Roma, magistra mundi: itineraria culturae medievalis: mélanges offerts au Père L.E. Boyle à l'occasion de son 75ᵉ anniversaire* (Louvain-la-Neuve: Fédération des instituts d'études médiévales, 1998) 83–109.

Gossiaux, Mark D. "James of Viterbo and the Late Thirteenth-Century Debate Concerning the Reality of the Possibles," *Recherches de théologie et philosophie médiévales* 74 (2007) 483–522.

"James of Viterbo on the Relationship between Essence and Existence," *Augustiniana* 49 (1999) 73–107.

Gössmann, Elisabeth. "Hildegard of Bingen," in M. E. Waithe (ed.) *A History of Women Philosophers*, vol. II (Dordrecht: Kluwer, 1989) 27–65.

Metaphysik und Heilsgeschichte: eine theologische Untersuchung der Summa Halesiana (Munich: Hueber, 1964).

Goulet, Richard. *Dictionnaire des philosophes antiques* (Paris: Éditions du Centre national de la recherche scientifique, 1999–).

Gouron, André. "Sur les sources civilistes et la datation des Sommes de Rufin e d'Étienne de Tournai," *Bulletin of Medieval Canon Law*, n.s. 16 (1986) 55–70.

Goy, Rudolf. *Die Überlieferung der Werke Hugos von St Viktor* (Stuttgart: Hiersemann, 1976).

Grabmann, Martin. *Die Aristoteleskommentare des Simon von Faversham: handschriftliche Mitteilungen* (Munich: Bayerische Akademie der Wissenschaften, 1933).

"Die Aristoteleskommentatoren Adam von Bocfeld und Adam von Bouchermefort: die Anfänge der Erklärung des 'neuen Aristotel' in England," *Mittelalterliches Geistesleben* (1936) 138–82, 613–16.

Gentile da Cingoli, ein italienischer Aristoteleserklärer aus der Zeit Dantes (Munich: Verlag der Bayerischen Akademie der Wissenschaften, 1941).

Guglielmo di Moerbeke O.P. il traduttore delle opere di Aristotele (Rome: Pontificia Università Gregoriana, 1946).

"Des heiligen Augustinus *Quaestio De ideis* (*De diversis quaestionibus* LXXXIII, qu. 46) in ihrer inhaltlichen Bedeutung und mittelalterlichen Weiterwirkung," in M. Grabmann (ed.) *Mittelalterliches Geistesleben* (Munich: Hueber, 1936) II: 25–34.

"Jakob von Douai, ein Aristoteleskommentator zur Zeit des hl. Thomas von Aquin und des Siger von Brabant," in M. A. Pelzer (ed.) *Mélanges Auguste Pelzer: études d'histoire littéraire*

et doctrinale de la scolastique médiévale offerts à Mgr. Auguste Pelzer à l'occasion de son soixante-dixième anniversaire (Leuven: Éditions de l'Institut Supérieur de Philosophie, 1947) 389–413.

"Johannes Capreolus O.P., der *Princeps Thomistarum* (†1444), und seine Stellung in der Geschichte der Thomistenschule," in *Mittelalterliches Geistesleben: Abhandlungen zur Geschichte der Scholastik und Mystik* (Munich: Hueber, 1956) III: 370–410.

"Kardinal Guilelmus Petri O.P. († 1336) und seine Lectura Thomasina," *Divus Thomas* 4 (1926) 385–402.

"Der *Liber de exemplis naturalibus* des Franziskanertheologen Servasanctus," *Franziskanische Studien* 7 (1920) 85–117.

"Die logischen Schriften des Nikolaus von Paris und ihre Stellung in den aristotelischen Bewegung des XIII. Jahrhunderts," in M. Grabmann (ed.) *Mittelalterliches Geistesleben* (Munich: Hueber, 1926) I: 222–48.

"Die Metaphysik des Thomas von York," *Studien zur Geschichte der Philosophie: Festgabe zum 60 Geburtstag Clemens Baeumker* (Münster: Aschendorff, 1913) 181–93.

"Die *Philosophia pauperum* und ihr Verfasser Albert von Orlamünde," *Beiträge zur Geschichte der Philosophie des Mittelalters* 20 (1918) 1–29.

Die philosophische und theologische Erkenntnislehre des Kardinals Matthaeus von Aquasparta (Vienna: Mayer, 1906).

"Quaestiones tres Fratris Ferrarii Catalani, O.Pr. doctrinam sancti Augustini illustrantes ex codice Parisiensi editae," *Estudis Franciscans* 42 (1930) 382–90.

Die Sophismataliteratur des 12. und 13. Jahrhunderts mit Textausgabe eines Sophisma des Boethius von Dacien (Münster: Aschendorff, 1940).

"Studien über den Averroisten Taddeo da Parma," *Mittelalterliches Geistesleben*, vol. II (1936) 239–260.

"Studien über Ulrich von Strassburg," in *Mittelalterliches Geistesleben: Abhandlungen zur Geschichte der Scholastik und Mystik* (Munich: Hueber, 1926) I: 147–221.

"Studien zu Johannes Quidort von Paris, O.Pr.," in *Sitzungsberichte der Bayerischen Akademie der Wissenschaften zu München* (Munich: Die Akademie, 1922) [repr. in M. Grabmann, *Gesammelte Akademieabhandlungen* (Paderborn: Schöningh, 1979) I: 69–128].

Thomas von Erfurt und die Sprachlogik des mittelalterlichen Aristotelismus (Munich: Hueber, 1943).

Gracia, Jorge J. E. "The Agent and Possible Intellects in Gonsalvus Hispanus' Question XIII," *Franciscan Studies* 20 (1969) 5–36.

Gracia, Jorge J. E. and Timothy B. Noone (eds.). *A Companion to Philosophy in the Middle Ages* (Oxford: Blackwell, 2003).

Graetz, Heinrich. "The Significance of Judaism for the Present and the Future," *Jewish Quarterly Review* 1 (1888) 4–13.

Graf, Georg. *Geschichte der christlichen arabischen Literatur* (Vatican: Biblioteca Apostolica Vaticana, 1944–).

Grant, Edward. *The Foundations of Modern Science in the Middle Ages: Their Religious, Institutional and Intellectual Contexts* (Cambridge: Cambridge University Press, 1996).

God and Reason in the Middle Ages (Cambridge: Cambridge University Press, 2001).

"Jean Buridan and Nicole Oresme on Natural Knowledge," *Vivarium* 31 (1993) 84–105.

"The Medieval Doctrine of Place: Some Fundamental Problems and Solutions," in A. Maierù and A. Paravicini-Bagliani (eds.) *Studi sul XIV secolo in memoria di Anneliese Maier* (Rome: Edizioni di Storia e Letteratura, 1981) 57–79.

Studies in Medieval Science and Natural Philosophy (London: Variorum Reprints, 1981).

Grass, Rainer. *Schlußfolgerungslehre in Erfurter Schulen des 14. Jahrhunderts: eine Untersuchung der Konsequentientraktate von Thomas Maulfelt und Albert von Sachsen in Gegenüberstellung mit einer modernen Position* (Amsterdam: Grüner, 2003).

Grassi, Onorato. *Intuizione e significato: Adam Wodeham e il problema della conoscenza nel XIV secolo* (Milan: Jaca, 1986).

"Le tesi di Robert Holcot sul valore non scientifico della conoscenza teologica," *Rivista di filosofia neo-scolastica* 71 (1979) 49–79.

Green-Pedersen, Niels. "Bradwardine (?) on Ockham's Doctrine of Consequences: An Edition," *Cahiers de l'Institut du Moyen Age Grec et Latin* 42 (1982) 85–150.

"Early British Treatises on Consequences," in P. O. Lewry (ed.) *The Rise of British Logic* (Toronto: Pontifical Institute of Mediaeval Studies, 1985) 285–307.

"William of Champeaux on Boethius' Topics according to Orléans Bibl. Mun. 266," *Cahiers de l'Institut du Moyen Age Grec et Latin* 13 (1974) 13–30.

Gregory, Tullio. *Anima mundi: la filosofia di Guglielmo di Conches e la Scuola di Chartres* (Florence: Sansoni, 1955).

"Platone e Aristotele nello Speculum di Enrico Bate di Malines," *Studi Medievali* 3 (1961) 302–19.

"The Platonic Inheritance," in P. Dronke (ed.) *A History of Twelfth-Century Western Philosophy* (Cambridge: Cambridge University Press, 1988) 54–80.

Greive, Hermann. *Studien zum jüdischen Neuplatonismus: die Religionsphilosophie des Abraham Ibn Ezra* (Berlin: De Gruyter, 1973).

Grellard, Christophe. *Croire et savoir: les principes de la connaissance selon Nicolas d'Autrécourt* (Paris: Vrin, 2005).

Griffel, Frank. "Al-Ghazālī's Concept of Prophecy: The Introduction of Avicennan Psychology into Ashʿarite Theology," *Arabic Sciences and Philosophy* 14 (2004) 101–44.

Al-Ghazālī's Philosophical Theology (Oxford: Oxford University Press, 2009).

Apostasie und Toleranz im Islam: die Entwicklung zu al-Gazālīs Urteil gegen die Philosophen und die Reaktionen der Philosophen (Leiden: Brill, 2000).

"MS London, British Library Or. 3126: An Unknown Work by al-Ghazālī on Metaphysics and Philosophical Theology," *Journal of Islamic Studies* 17 (2006) 1–42.

Griffith, Sidney H. *The Church in the Shadow of the Mosque: Christians and Muslims in the World of Islam* (Princeton, NJ: Princeton University Press, 2008).

Theodore Abu Qurrah: The Intellectual Profile of an Arab-Christian Writer of the First Abbasid Century (Tel Aviv: Tel Aviv University, 1992).

Grignaschi, Marc. "Il pensiero politico e religioso di Giovanni di Jandun," *Bollettino del'Istituto Storico Italiano per il Mediœvo e Archivio Muratoriano* 70 (1958) 425–96.

"Les traductions latines des ouvrages de la logique arabe et l'abrégé d'Alfarabi," *Archives d'histoire doctrinale et littéraire du moyen âge* 39 (1972) 41–107.

Grondeux, Anne. *Le Graecismus d'Evrard de Béthune à travers ses gloses: entre grammaire positive et grammaire spéculative du XIIIᵉ au XIVᵉ siècle* (Turnhout: Brepols, 2000).

"Prologue, *prohemium*, glose du *prohemium* dans les manuscrits du Graecismus d'Evrard de Béthune," in *Les prologues médiévaux (Actes du colloque organisé par l'Academia Belgica et l'Ecole française de Rome, Rome 26–28 mars 1998)* (Turnhout: Brepols, 2000) 323–44.

"Sophismata Anonymi Avenionensis," *Cahiers de l'Institut du Moyen Age Grec et Latin* 73 (2002) 41–59.

"*Turba ruunt* (Ov. 'Her.' 1, 88?): Histoire d'un exemple grammatical," *Archivum Latinitatis Medii Aevi* 61 (2003) 175–222.

Grondeux, Anne and Elsa Marguin. "L'œuvre grammaticale de Jean de Garlande (*ca.* 1195–1272?), auteur, réviseur et glosateur. Un bilan," *Histoire Epistémologie Langage* 21 (1999) 133–63.

Grondeux, Anne and Irène Rosier-Catach. "Synthèse grammaticale," in I. Rosier-Catach (ed.) *Les Glosulae super Priscianum, Guillaume de Champeaux, Abelard: arts du langage et théologie aux confins des XIᵉ/XIIᵉ siècles* (Turnhout: Brepols, forthcoming).

Groppo, Guiseppe. "La teologia e il suo 'subiectum' secundo il prologo del commento alle sentenze di Pietro de Palude, O.P. († 1342)," *Salesianum* 23 (1961) 219–316.

Gross, Julius. "Die Erbsündenlehre Manegolds von Lautenbach nach seinem Psalmen-Kommentar," *Zeitschrift für Kirchengeschichte* 71 (1960) 253–61.

Gross-Diaz, Theresa. *The Psalms Commentary of Gilbert of Poitiers: From lectio divina to the Lecture Room* (Leiden: Brill, 1996).

Gründel, Johannes. *Die Lehre des Radulfus Ardens von den Berstandestugenden auf dem Hintergund seinen Seelenlehre* (Munich: Schöningh, 1976).

"L'œuvre encyclopédique de Raoul Ardent, le *Speculum universale*," *Cahiers d'histoire mondiale* 9 (1966) 553–70.

"Die Sentenzenglose des Johannes Pagus (circa 1243–1245) in Padua, Bibl. Ant. 139," *Münchener Theologische Zeitschrift* 9 (1958) 171–85.

Grundmann, Herbert. "Die Frauen und die Literatur im Mittelalter: ein Beitrag zur Frage nach der Entstehung des Schrifttums in der Volkssprache," *Archiv fur Kulturgeschichte* 26 (1936) 129–61.

Religious Movements in the Middle Ages: The Historical Links between Heresy, the Mendicant Orders, and the Women's Religious Movement in the Twelfth and Thirteenth Century, with the Historical Foundations of German Mysticism (Notre Dame, IN: University of Notre Dame Press, 1995).

Gueroult, Martial. *Descartes' Philosophy Interpreted According to the Order of Reasons*, tr. R. Ariew *et al.* (Minneapolis: University of Minnesota Press, 1984–5).

Guldentops, Guy. "Henry Bate's Encyclopaedism," in P. Binkley (ed.) *Pre-Modern Encyclopaedic Texts* (Leiden: Brill, 1997) 227–37.

"Henry Bate's Metamorphosis of Averroës," *Alif* 16 (1996) 56–76.

"James of Douai's Theory of Knowledge," in M. C. Pacheco and J. F. Meirinhos (eds.) *Intellect et imagination dans la philosophie médiévale* (Turnhout: Brepols, 2006) II: 1143–54.

"A Short Introduction to James of Douai's Philosophy of Mind," in P. J. J. M. Bakker and J. M. M. H. Thijssen (eds.) *Mind, Cognition and Representation: The Tradition of Commentaries on Aristotle's* De anima (Aldershot: Ashgate, 2007) 21–43.

Guldentops, Guy and Carlos Steel (eds.). *Henry of Ghent and the Transformation of Scholastic Thought: Studies in Memory of Jos Decorte* (Leuven: Leuven University Press, 2003).

Gunaydin, Muhammet. "Al-Sīrāfī's Theory of 'Lingua-Logical' Grammar" (Ph.D. dissertation: University of Pennsylvania, 2006).

Gutas, Dimitri. "The 'Alexandria to Baghdad' Complex of Narratives. A Contribution to the Study of Philosophical and Medical Historiography among the Arabs," *Documenti e studi sulla tradizione filosofica medievale* 10 (1999) 155–93.

Avicenna and the Aristotelian Tradition, Introduction to Reading Avicenna's Philosophical Works (Leiden: Brill, 1988).

"Geometry and the Rebirth of Philosophy in Arabic with al-Kindī," in R. Arnzen and J. Thielmann (eds.) *Words, Texts and Concepts Cruising the Mediterranean Sea*, Festschrift for Gerhard Endress (Leuven: Peeters, 2004) 195–209.

Greek Thought, Arabic Culture: The Graeco-Arabic Translation Movement in Baghdad and Early ʿAbbāsid Society (2nd–4th / 8th–10th Centuries) (London: Routledge, 1998).

"Intuition and Thinking: The Evolving Structure of Avicenna's Epistemology," in R. Wisnovsky (ed.) *Aspects of Avicenna* (Princeton, NJ: Princeton University Press, 2001) 1–38.

"The Logic of Theology (kalām) in Avicenna," in D. Perler and U. Rudolph (eds.) *Logik und Theologie: das Organon im arabischen und im lateinischen Mittelalter* (Leiden: Brill, 2005) 59–72.

"On Graeco-Arabic Epistolary 'Novels'," *Middle Eastern Literatures* (forthcoming).

"Paul the Persian on the Classification of the Parts of Aristotle's Philosophy: A Milestone between Alexandria and Baġdād," *Der Islam* 60 (1983) 231–67.

"Plato's *Symposion* in the Arabic Tradition," *Oriens* 31 (1988) 36–60.

Guth, Klaus. *Johannes von Salisbury (1115/20–1180): Studien zur Kirchen-, Kultur- und Sozialgeschichte Westeuropas im 12. Jh.* (St. Ottilien: Eos-Verlag, 1978).

Gutierrez, David. "De vita et scriptis Beati Iacobi de Viterbio," *Analecta Augustiniana* 16 (1937–8) 216–24, 282–305, 358–81.

Gutiérrez Galindo, Marco. *El Doctrinal: una gramática latina del Renacimiento del siglo XII* (Madrid: Akal, 1993).

Gwynn, Aubrey. "The 'Sermon-Diary' of Richard FitzRalph, Archbishop of Armagh," *Proceedings of the Royal Irish Academy*, 44 (1937–8) 1–57.

Gyekye, Kwame. "Al-Ghazâlî on Action," in *Ghazâlî, la raison et le miracle* (Paris: Maisonneuve et Larose, 1987) 83–91.

Haage, Bernhard Dietrich. "Die Korpuskulartheorie bei Geber latinus," *Würzburger medizinhistorische Mitteilungen* 12 (1994) 19–28.

Haakonssen, Knud. "The Moral Conservatism of Natural Rights," in I. Hunter and D. Saunders (eds.) *Natural Law and Civil Sovereignty: Moral Right and State Authority in Early Modern Political Thought* (Houndmills, Basingstoke: Palgrave, 2002) 13–26.

Haas, Alois M. *Nim din selbes war: Studien zur Lehre von der Selbsterkenntnis bei Meister Eckhart, Johannes Tauler und Heinrich Seuse* (Freiburg: Universitätsverlag, 1971).

Hackett, Jeremiah (ed.). *Roger Bacon and Aristotelianism*, special issue of *Vivarium* 35:2 (1997).

(ed.). *Roger Bacon and the Sciences: Commemorative Essays* (Leiden: Brill, 1997).

Hackett, Jeremiah and Thomas S. Mahoney. "Roger Bacon Bibliography (1957–1985)," *New Scholasticism* 61 (1987) 184–207.

Hadot, Ilsetraut. *Arts libéraux et philosophie dans la pensée antique* (Paris: Études Augustiniennes, 1984).

"Dans quel lieu le néoplatonicien Simplicius a-t-il fondé son école de mathématiques, et où a pu avoir lieu son entretien avec un manichéen?," *International Journal of the Platonic Tradition* 1 (2007) 42–107.

Hadot, Pierre. "La distinction de l'être et de l'étant dans le 'De Hebdomadibus' de Boèce," in *Die Metaphysik im Mittelalter (Miscellanea mediaevalia 2)* (Berlin: De Gruyter, 1963) 147–53.

Exercises spirituels et philosophie antique, 2nd edn (Paris: Études Augustiniennes, 1987).

"Forma essendi: interprétation philologique et interprétation philosophique d'une formule de Boèce," *Études Classiques* 38 (1970) 143–56.

Philosophy as a Way of Life: Spiritual Exegesis from Socrates to Foucault, tr. M. Chase (Oxford: Blackwell, 1995).

Haines, Roy. *"Ecclesia Anglicana": Studies in the English Church of the Later Middle Ages* (Toronto: University of Toronto Press, 1989).

Haldane, John. "The Metaphysics of Intellect(ion)," *Proceedings of the American Catholic Philosophical Association* 80 (2007) 39–55.

Haldon, John. *Byzantium in the Seventh Century: The Transformation of a Culture* (Cambridge: Cambridge University Press, 1990).

Hallamaa, Olli. "Defending Common Rationality: Roger Roseth on Trinitarian Paralogisms," *Vivarium* 41 (2003) 84–119.

"On the Borderline between Logic and Theology: Roger Roseth, Sophismata, and Augmentation of Charity," *Documenti e studi sulla tradizione filosofica medievale* 11 (2000) 351–74.

Hallaq, Wael B. *The Origins and Evolution of Islamic Law* (Cambridge: Cambridge University Press, 2005).

Halm, Heinz. *Shiism* (Edinburgh: Edinburgh University Press, 1991; 2nd edn (New York: Columbia University Press, 2004).

Halverson, James L. *Peter Aureol on Predestination. A Challenge to Late Medieval Thought* (Leiden: Brill, 1998).

Hamann, Florian. *Das Siegel der Ewigkeit: Universalwissenschaft und Konziliarismus bei Heymericus de Campo* (Münster: Aschendorff, 2006).

Hames, Harvey. *The Art of Conversion: Christianity and Kabbalah in the Thirteenth Century* (Leiden: Brill, 2000).

Hammond, Robert. *The Philosophy of Alfarabi and its Influence on Medieval Thought* (New York: Hobson Book Press, 1947).

Hankey, Wayne. "Aquinas and the Platonists," in S. Gersh and M. J. F. M. Hoenen (eds.) *The Platonic Tradition in the Middle Ages. A Doxographic Approach* (Berlin: De Gruyter, 2002) 279–324.

Hansberger, R. E. "The Transmission of Aristotle's *Parva Naturalia* in Arabic" (Ph.D. dissertation: Oxford University, 2006).

Häring, N. M. "Chartres and Paris Revisited," in J. R. O'Donnell (ed.) *Essays in Honour of Anton Charles Pegis* (Toronto: Pontifical Institute of Medieval Studies, 1974) 268–329.

"The Creation and Creator of the World According to Thierry of Chartres and Clarenbaldus of Arras," *Archives d'histoire doctrinale et littéraire du moyen âge* 22 (1955) 137–216.

"Everard of Ypres and his Appraisal of the Conflict between St. Bernard and Gilbert of Poitiers," *Mediaeval Studies* 17 (1955) 143–72.

"In Search of Adhemar's Patristic Collection," *Mediaeval Studies* 28 (1966) 336–46.

"The *Liber de differentia naturae et personae* by Hugh Etherian and the Letters Addressed to him by Peter of Vienna and Hugh of Honau," *Mediaeval Studies* 24 (1962) 1–34.

"Simon of Tournai and Gilbert of Poitiers," *Mediaeval Studies* 27 (1965) 325–30.

"Die Vatersammlung des Adhemar von Saint-Ruf in Valence," *Scholastik* 38 (1963) 402–20.

Harris, Jay (ed.). *Maimonides after 800 Years: Essays on Maimonides and his Influence* (Cambridge, MA: Harvard University Press, 2008).

Harrison, Simon. "Do We Have a Will? Augustine's Way in to the Will," in G.B. Matthews (ed.) *The Augustinian Tradition* (Berkeley: University of California Press, 1999) 195–205.

Hart, H. L. A. "Are There Any Natural Rights?," *Philosophical Review* 64 (1955) 175–91.

The Concept of Law (Oxford: Clarendon Press, 1961).

Hartmann, Friedrich. *Die Literatur von Früh- und Hochsalerno und der Inhalt des Breslauer Codex Salernitanus* (Leipzig: Noske, 1919).

Hartmann, Wilfried. "Manegold von Lautenbach und die Anfänge der Frühscholastik," *Deutsches Archiv für Erforschung des Mittelalters* 26 (1970) 47–149.

Harvey, E. Ruth. *The Inward Wits: Psychological Theory in the Middle Ages and the Renaissance* (London: Warburg Institute, 1975).

Harvey, Steven (ed.) *The Medieval Hebrew Encyclopedias of Science and Philosophy* (Dordrecht: Kluwer, 2000).

"The Place of the Philosopher in the City according to Ibn Bajja," in C. E. Butterworth (ed.) *The Political Aspects of Islamic Philosophy: Essays in Honor of M. S. Mahdi* (Cambridge, MA: Harvard University Press, 1992) 199–233.

Harvey, Warren. "Albo's Discussion of Time," *Jewish Quarterly Review* 70 (1979–80) 210–38.
 Physics and Metaphysics in Hasdai Crescas (Amsterdam: Gieben, 1998).
Hasse, Dag Nikolaus. "Avicenna on Abstraction," in R. Wisnovsky (ed.) *Aspects of Avicenna* (Princeton, NJ: Markus Wiener, 2001) 39–72.
 Avicenna's De anima *in the Latin West: The Formation of a Peripatetic Philosophy of the Soul 1160–1300* (London: Warburg Institute; Turin: Nino Aragno Editore, 2000).
 "Pietro d'Abano's 'Conciliator' and the Theory of the Soul in Paris," in Jan A. Aertsen et al. (eds.) *Nach der Verurteilung von 1277: Philosophie und Theologie an der Universität von Paris im letzten Viertel des 13. Jahrhunderts: Studien und Texte* (Berlin: De Gruyter, 2001) 635–53.
 "Plato Arabico-latinus: Philosophy – Wisdom Literature – Occult Sciences," in S. Gersh and M. J. F. M. Hoenen (eds.) *The Platonic Tradition in the Middle Ages: A Doxographic Approach* (Berlin: De Gruyter, 2002) 31–65.
Haubst, Rudolf. "Johannes Wenck aus Herrenberg als Albertist," *Recherches de théologie ancienne et médiévale* 18 (1951) 308–23.
 Streifzüge in die cusanische Theologie (Münster: Aschendorff, 1991).
Haubst, Rudolf et al. (eds). *Mitteilungen und Forschungsbeiträge der Cusanus-Gesellschaft* (Mainz: Mattias-Grünewald, 1961–).
Hauke, Hermann. "Die Lehre von der Beseligenden Schau nach Nikolaus Trivet" (Inaugural Dissertation: University of Munich, 1967).
Hause, Jeffrey. "Aquinas on the Function of Moral Virtue," *American Catholic Philosophical Quarterly* 81 (2007) 1–20.
 "Thomas Aquinas and the Voluntarists," *Medieval Philosophy and Theology* 6 (1997) 167–82.
Haven, Mark. *La vie et les œuvres de Maître Arnaud de Villeneuve* (1896; reprint, Geneva: Slatkine Reprints, 1972).
Hawi, Sami. "Ibn Tufayl's Appraisal of his Predecessors and their Influence on his Thought," *International Journal of Middle East Studies* 7 (1976) 89–121.
 Islamic Naturalism and Mysticism: A Philosophical Study of Ibn Tufayl's Hayy Yaqzan (Leiden: Brill, 1974).
Hayes, Zachary. *The General Doctrine of Creation in the Thirteenth Century, with Special Emphasis on Matthew of Aquasparta* (Munich: Schöningh, 1964).
Hayoun, Moise-Ruben. *Moshe Narboni* (Tubingen: Mohr, 1986).
Hayoun, Moise-Ruben and Alain de Libera (eds.). *Averroès et l'averroïsme* (Paris: Presses universitaires de France, 1991).
Heemskerk, Margaretha. *Suffering in the Muʿtazilite Theology: ʿAbd al-Jabbar's Teaching on Pain and Divine Justice* (Leiden: Brill, 2000).
Hegyi, Johannes. *Die Bedeutung des Seins bei den klassischen Kommentatoren des heiligen Thomas von Aquin: Capreolus, Silvester von Ferrara, Cajetan* (Pullach bei München: Berchmanskolleg, 1959).
Heidingsfelder, Georg. *Albert von Sachsen: sein Lebensgang und sein Kommentar zur Nikomachischen Ethik des Aristoteles* (Münster: Aschendorff, 1927).
Hein, Christel. *Definition und Einteilung der Philosophie von der spätantiken Einleitungsliteratur zur arabischen Enzyklopädie* (Frankfurt: Lang, 1985).
Heintke, Fritz. *Humbert von Romans, der fünfte Ordermeister der Dominikaner* (Berlin: Ebering, 1933; repr. Vaduz: Kraus, 1965).
Heinzmann, Richard. *Die* Compilatio questionum theologiae *secundum Magistrum Martinum* (Munich: Hueber, 1964).
Henderson, John. *The Medieval World of Isidore of Seville: Truth from Words* (Cambridge: Cambridge University Press, 2007).

Henle, Robert J. *Saint Thomas and Platonism: A Study of Plato and Platonici Texts in the Writings of Saint Thomas* (The Hague: Nijhoff, 1956).

Henninger, Mark. "Hervaeus Natalis, b.1250/60; d. 1323, and Richard of Mediavilla, b.1245/49; d.1302/07," in J. J. E. Gracia (ed.) *Individuation in Scholasticism: The Later Middle Ages and the Counter-Reformation, 1150–1650* (Albany: State University of New York Press, 1994) 299–318.

   Relations: Medieval Theories 1250–1325 (Oxford: Clarendon Press, 1989).

   "Thomas Wylton's Theory of Relations," *Documenti e studi sulla tradizione filosofica medievale* 1 (1990) 457–90.

Henquinet, F. "Les manuscrits et l'influence des écrits theologiques d'Eudes Rigaud," *Recherches de théologie ancienne et médiévale* 11 (1939) 323–50.

Henry, Desmond P. *The Logic of Saint Anselm* (Oxford: Clarendon Press, 1967).

   "The Singular Syllogism of Garlandus Compotista," *Revue internationale de philosophie* 113 (1975) 243–70.

Herren, Michael. "Manegold of Lautenbach's Scholia on the *Metamorphoses* – Are There More?" *Notes and Queries* 51 (2004) 218–23.

Herscher, Irenaeus. "A Bibliography of Alexander of Hales," *Franciscan Studies* 5 (1945) 434–54.

Heynck, Valens. "Der Skotist Hugo de Novo Castro," *Franziskanische Studien* 43 (1961) 244–70.

   "Studien zu Johannes von Erfurt," *Franziskanische Studien* 40 (1958) 327–60; 42 (1960) 153–96.

   "Zur Datierung des 'Correctorium fratris Thomae' Wilhelmus de La Mare," *Franziskanische Studien* 49 (1967) 1–21.

Heysse, Aubain. "Fr. Pierre de Falco ne peut être identifié avec Guillaume de Falegar O.F.M.," *Archivum Franciscanum Historicum* 33 (1940) 241–67.

Hill, Donald R. "The Literature of Arabic Alchemy," in M. J. L. Young *et al.* (eds.) *Religion, Learning and Science in the Abbasid Period* (Cambridge: Cambridge University Press, 1990) 328–41.

Hillenbrand, Eugen. *Nikolaus von Strassburg: religiöse Bewegung und dominikanische Theologie im 14. Jahrhundert* (Freiburg im Breisgau: Albert, 1968).

Hillgarth, Jocelyn N. *Ramon Lull and Lullism in Fourteenth-Century France* (Oxford: Clarendon Press, 1971).

Hilsch, Peter. *Johannes Hus (um 1370–1415): Prediger Gottes und Ketzer* (Rogensbourg: Pustet, 1999).

Hinnebusch, William. *The Early English Friars Preachers* (Rome: Ad S. Sabinae, 1951).

   The History of the Dominican Order (State Island, NY: Alba House, 1966–73*)*.

Hirschfield, Hartwig. *Festschrift zum 80. Geburtstag Moritz Steinschneiders.* (Leipzig: Harrassowitz, 1896)

Hirvonen, Vesa. *Passions in William Ockham's Philosophical Psychology* (Dordrecht: Kluwer, 2004).

Hissette, Roland. *Enquête sur les 219 articles condamnés à Paris le 7 mars 1277* (Leuven: Publications universitaires, 1977).

   "Une question quodlibétique de Servais du Mont-Saint-Eloi sur le pouvoir papal de l'évêque," *Recherches de théologie ancienne et médiévale* 49 (1982) 234–42.

   "Roger Marston, a-t-il professé l'hylemorphisme universel?," *Recherches de théologie ancienne et médiévale* 29 *(*1972*)* 205–23.

Hocedez, Edgar. "La philosophie des Quodlibets de Pierre d'Auvergne," in A. Long *et al.* (eds.) *Aus der Geisteswelt des Mittelalters*: *Studien und Texte Martin Grabmann zur Vollendung des 60. Lebensjahres von Freunden und Schülern gewidmet* (Münster: Aschendorff, 1935).

   "Les *Quaestiones in metaphysicam* de Pierre d'Auvergne," *Archives de philosophie* 9 (1932) 515–70.

   "Un question inédite de Pierre d'Auvergne sur l'individuation," *Revue néoscolastique de philosophie* 36 (1934) 355–86.

Richard de Middleton: sa vie, ses œuvres, sa doctrine (Leuven: Spicilegium Sacrum lovaniense, 1925).

"La théologie de Pierre d'Auvergne," *Gregorianum* 11 (1930) 526–55.

"La vie et les œuvres de Pierre d'Auvergne," *Gregorianum* 14 (1933) 3–36.

Hödl, Ludwig. "Die Aulien des Magisters Johannes von Pouilly und der scholastische Streit über die Begründung der menschlichen Willensfreiheit," *Scholastik* 35 (1960) 57–75.

"Literar- und problemgeschichtliche Untersuchungen zum Sentenzenkommentar des Wilhelm von Ware O.F.M. (nach 1305)," *Recherches de théologie ancienne et médiévale* 57 (1990) 122–41.

" 'Non est malitia in voluntate . . .' Die magistrale Entscheidung der Pariser Theologen von 1285/86 in der Diskussion des Johannes de Polliaco, Quodl. I, q. 10," *Archives d'histoire doctrinale et littéraire du moyen âge* 66 (1999) 247–97.

"Die Opposition des Johannes de Polliaco gegen die Schule der Gandavistae," *Bochumer Philosophisches Jahrbuch* 9 (2004) 115–77.

"The *Quodlibeta* of John of Pouilly († *ca.* 1328) and the Philosophical and Theological Debates at Paris 1307–1312," in C. Schabel (ed.) *Theological Quodlibeta in the Middle Ages: The Fourteenth Century* (Leiden: Brill, 2007) 199–229.

"Die Seinsdifferenz des möglichen im Quodlibet des Jacobus von Ascoli Ordinis Minorum," in O. Pluta (ed.) *Die Philosophie im 14. und 15. Jahrhundert* (Amsterdam: Grüner, 1988) 465–94.

"Die Sentenzen des Petrus Lombardus in der Diskussion seiner Schule," in G.R. Evans (ed.) *Mediaeval Commentaries on the* Sentences *of Peter Lombard: Current Research* (Leiden: Brill, 2002) 25–40.

"Studien zum nominalistischen Schöpfungsbegriff in der spätscholastischen Theologie des Michael de Massa OESA (†1337)," *Cassiciacum* 30 (1975) 234–56.

Hoenen, Maarten J. F. M. "Academic Theology in the Fifteenth Century: The Sentences Commentary of Heymericus de Campo (+ 1460)," in P. J. J. M. Bakker (ed.) *Chemins de la pensée médiévale: Études offertes à Zénon Kaluza* (Turnhout: Brepols, 2002) 513–59.

"Academics and Intellectual Life in the Low Countries. The University Career of Heymeric de Campo (†1460)," *Recherches de théologie ancienne et médiévale* 61 (1994) 173–209.

"The Commentary on the *Sentences* of Marsilius of Inghen," in G. Evans (ed.) *Mediaeval Commentaries on the* Sentences *of Peter Lombard* (Leiden: Brill, 2002) 465–506.

Heymeric van de Velde: Eenheid in de tegendelen (Baarn: Ambo, 1990).

"Heymeric van de Velde († 1460) und die Geschichte des Albertismus: Auf der Suche nach den Quellen der albertistischen Intellektlehre des *Tractatus problematicus*," in M. J. F. M. Hoenen and A. de Libera (eds.) *Albertus Magnus und der Albertismus: Deutsche philosophische Kultur des Mittelalters* (Leiden: Brill, 1995) 303–31.

Marsilius of Inghen: Divine Knowledge in Late Medieval Thought (Leiden: Brill, 1993).

"Marsilius von Inghen: Bibliographie. Appendix zu der geplanten Edition der wichtigsten Werk des Marsilius von Inghen," *Bulletin de philosophie médiévale* 31 (1989) 150–67.

"Marsilius von Inghen: Bibliographie. Ergänzungen," *Bulletin de philosophie médiévale* 31 (1990) 191–5.

"Nominalismus als universitäre Spekulationskontrolle," *Recherches de théologie et philosophie médiévales* 73 (2006) 349–74.

Hoenen, Maarten J. F. M. and Paul J. J. M. Bakker (eds.). *Philosophie und Theologie des ausgehenden Mittelalters: Marsilius von Inghen und das Denken seiner Zeit* (Leiden: Brill, 2000).

Hoenen, Maarten J. F. M and Alain de Libera. *Albertus Magnus und der Albertismus: Deutsche philosophische Kultur des Mittelalters* (Leiden: Brill, 1995).

Hoeres, Walter. "Wesen und Dasein bei Heinrich von Gent und Duns Scot," *Franziskanische Studien* 47 (1965) 121–86.

"Zur Ontologie von Petrus Thomae OFM," *Franziskanische Studien* 43 (1961) 374–9.

Hoffmann, Fritz. *Die theologische Methode des Oxforder Dominikanerlehrers Robert Holcot* (Münster: Aschendorff, 1972).

"Der Wandel in der Scholastischen Argumentation vom 13 Zum 14 Jahrhundert aufgezeigt an zwei Beispielen: Robert Holcot und William Crathorn," in A. Speer (ed.) *Die Bibliotheca Amploniana: ihre Bedeutung im Spannungsfeld von Aristotelismus, Nominalismus und Humanismus* (Berlin: De Gruyter, 1995) 301–22.

Hoffmann, Tobias. "Aquinas and Intellectual Determinism: The Test Case of Angelic Sin," *Archiv für Geschichte der Philosophie* 89 (2007) 122–56.

Hoffmann, Tobias, Jörn Müller, and Matthias Perkams (eds.). *Das Problem der Willensschwäche in der mittelalterlichen Philosophie* (Leuven: Peeters, 2006).

Höfler, Karl Adolf Constantin. *Geschichtschreiber der husitischen bewegung in Böhmen* (Vienna: Hof- und Staatsdruckerei, 1856–66).

Hofmeier, Johann. *Die Trinitätslehre des Hugo von St. Viktor* (Munich: Hueber, 1964).

Hogg, Charles R. Jr. "*Ethica secundum stoicos*: An Edition, Translation, and Critical Essay" (Ph.D. dissertation: Indiana University, 1997).

Holloway, Julia Bolton. *Brunetto Latini: An Analytic Bibliography* (London: Grant and Cutler, 1986).

Twice-Told Tales: Brunetto Latino and Dante Alighieri (New York: Lang, 1993).

Hollywood, Amy. "Inside Out: Beatrice of Nazareth and her Hagiographer," in C. Mooney (ed.) *Gendered Voices: Medieval Saints and their Interpreters* (Philadelphia: University of Pennsylvania Press, 1999) 78–98.

The Soul as Virgin Wife: Mechtild of Magdeburg, Marguerite Porete, and Meister Eckhart (Notre Dame, IN: University of Notre Dame Press, 1995).

Holopainen, Toivo. *Dialectic and Theology in the Eleventh Century* (Leiden: Brill, 1996).

"Necessity in Early Medieval Thought: Peter Damian and Anselm of Canterbury," in P. Gilbert *et al.* (eds.) *Cur Deus Homo* (Rome: Herder, 1999) 221–34.

Holtz, Louis. "La grammaire carolingienne," in S. Auroux (ed.) *Histoire des idées linguistiques*, tome II: *Le développement de la grammaire occidentale* (Liège: Mardaga, 1992) 96–106.

Holtz, Louis and Olga Weijers. *L'enseignement des disciplines à la Faculté des Arts (Paris et Oxford, XIIIᵉ–XVᵉ siècles)* (Turnhout: Brepols, 1997).

Honnefelder, Ludger. *Ens inquantum ens: der Begriff des Seienden als solchen als Gegenstand der Metaphysik nach der Lehre des Johannes Duns Scotus* (Münster: Aschendorff, 1979).

Hoover, J. "Ibn Taymiyya as an Avicennan Theologian: A Muslim Approach to God's Self-Sufficiency," *Theological Review* 27 (2006) 34–46.

"Perpetual Creativity in the Perfection of God: Ibn Taymiyya's Hadith Commentary on God's Creation of the World," *Journal of Islamic Studies* 15 (2004) 287–329.

Hopkins, Jasper. *A Companion to the Study of St. Anselm* (Minneapolis, MN: University of Minnesota Press, 1972).

A Concise Introduction to the Philosophy of Nicholas of Cusa, 3rd edn (Minneapolis, MN: Banning, 1986).

Nicholas of Cusa's Debate with John Wenck (Minneapolis, MN: Banning, 1988).

Horst, Ulrich. *Die Trinitäts und Gotteslehre des Robert von Melun* (Mainz: Matthias-Grünewald-Verlag, 1964).

Hoskin, Michael A. and A.G. Molland. "Swineshead on Falling Bodies: An Example of Fourteenth-Century Physics," *British Journal for the History of Science* 3 (1966–7) 150–82.

Hoste, Anselm. *Bibliotheca Aelrediana: A Survey of the Manuscripts, Old Catalogues, Editions and Studies Concerning St. Aelred of Rievaulx* (Steenbrugis: In Abbatia Sancti Petri, 1962).

Hourani, George. "Ibn Sina on Necessary and Possible Existence," *Philosophical Forum* 4 (1972) 74–86.

Islamic Rationalism: The Ethics of ʿAbd al-Jabbar (Oxford: Clarendon Press, 1971).

"The Principal Subject of Ibn Tufayl's Hayy Ibn Yaqzan," *Journal of Near Eastern Studies* 15 (1956) 40–6.

"Reason and Revelation in Ibn Hazm's Ethical Thought," in G. Hourani (ed.) *Reason and Tradition in Islamic Ethics* (Cambridge: Cambridge University Press, 1985) 167–89.

Reason and Tradition in Islamic Ethics (Cambridge: Cambridge University Press, 1985).

Houser, R. E. *The Cardinal Virtues: Aquinas, Albert and Philip the Chancellor* (Toronto: Pontifical Institute of Mediaeval Studies, 2004).

"Philosophical Development through Metaphor: Light among the Greeks," *Proceedings of the American Catholic Philosophical Association* 64 (1990) 75–85.

"The Real Distinction and the Principles of Metaphysics: Avicenna and Aquinas," in R. E. Houser (ed.) *Laudemus viros gloriosos: Essays in Honor of Armand Maurer, CSB* (Notre Dame, IN: University of Notre Dame Press, 2007) 74–108.

Houwen, L. A. J. R and A. A. MacDonald (eds.). *Alcuin of York: Scholar at the Carolingian Court* (Groningen: Forsten, 1998).

Howard, Peter. *Beyond the Written Word: Preaching and Theology in the Florence of Archbishop Antoninus 1427–1459* (Florence: Olschki, 1995).

Hoyland, R. G. and B. Gilmour. *Medieval Islamic Swords and Swordmaking* (Cambridge: Gibb Memorial Trust).

Hudson, Anne. *The Premature Reformation: Wycliffite Texts and Lollard History* (Oxford: Clarendon Press, 1988).

(ed.) *Selections from English Wycliffite Writings* (Toronto: University of Toronto Press, 1997).

Hudson, Anne and Michael Wilks (eds.). *From Ockham to Wyclif* (Oxford: Blackwell, 1987).

Hudson, Nancy. *Becoming God: The Doctrine of Theosis in Nicholas of Cusa* (Washington, DC: Catholic University of America Press, 2007).

Hughes, Aaron. *The Texture of the Divine: Imagination in Medieval Islamic and Jewish Thought* (Bloomington, IN: Indiana University Press, 2004).

Hughes, G. E. *John Buridan on Self-Reference: Chapter Eight of Buridan's "Sophismata", An Edition and Translation with an Introduction and Philosophical Commentary* (Cambridge: Cambridge University Press, 1982).

Hughes, Kevin. "The *Ratio Dei* and the Ambiguities of History," *Modern Theology* 21 (2005) 645–61.

Hugonnard-Roche, Henri. "Aux origines de l'exégèse orientale de la logique d'Aristote: Sergius de Rešʿaina († 536), médecin et philosophe," *Journal asiatique* 277 (1989) 1–17.

"Le corpus philosophique syriaque aux VIᵉ –VIIᵉ siècles," in C. D'Ancona (ed.) *The Libraries of the Neoplatonists* (Leiden: Brill, 2007) 279–91.

La logique d'Aristote du grec au syriaque (Paris: Vrin, 2004).

Humbrecht, Thierry-Dominique. *Théologie négative et noms divins chez saint Thomas d'Aquin* (Paris: Vrin, 2005).

Hunger, Herbert. "Philosophie," in *Die hochsprachliche profane Literatur den Byzantiner* (Munich: Beck, 1978) I: 3–62.

Huning, H. A. "Die Stellung der Petrus de Trabibus zur Philosophie: nach dem zweiten Prolog zum ersten Buch seines Sentenzenkommentars ms 154, Biblioteca Comunale, Assisi," *Franziskanische Studien* 46 (1964) 193–287; 47 (1965) 1–43.

Hunt, R. W. "*Absoluta*: The *Summa* of Petrus Hispanus on Priscianus Minor," *Historiographia Linguistica* 2 (1975) 1–23.

    The Schools and the Cloister: The Life and Writings of Alexander Nequam, ed. and rev. M. Gibson (Oxford: Clarendon Press, 1984).

    "Studies on Priscian in the Eleventh and Twelfth Centuries. I. Petrus Helias and his Predecessors," *Medieval and Renaissance Studies* 1 (1941–3) 194–231; reprinted in G. L. Bursill-Hall (ed.) *The History of Grammar in the Middle Ages. Collected Papers* (Amsterdam: Benjamins, 1980).

    "Studies on Priscian in the Twelfth Century. II: The School of Ralph of Beauvais," *Mediaeval and Renaissance Studies* 2 (1950) 1–56; reprinted in G. L. Bursill-Hall. (ed.) *The History of Grammar in the Middle Ages. Collected Papers* (Amsterdam: Benjamins, 1980).

Hunt, Tony. *Teaching and Learning Latin in Thirteenth-Century England* (Cambridge: Brewer, 1991).

Hurka, Thomas. "Virtuous Act, Virtuous Dispositions," *Analysis* 66 (2006) 69–76.

Husik, Isaac. "Joseph Albo: The Last of the Mediaeval Jewish Philosophers," *Proceedings of the American Academy for Jewish Research* 1 (1928–30) 61–72.

Huygens, R. B. C. "Bérenger de Tours, Lanfranc et Bernold de Constance," *Sacris erudiri* 16 (1965) 358–77.

Hyman, Arthur. "Aristotle's 'First Matter' and Avicenna's and Averroes's 'Corporeal Form'," in S. Lieberman *et al.* (eds.) *Harry Austryn Wolfson Jubilee Volume* (Jerusalem: American Academy for Jewish Research, 1965) 385–406.

    "Maimonides on Creation and Emanation," in J. F. Wippel. (ed.) *Studies in Medieval Philosophy* (Washington, DC: Catholic University of America Press, 1987) 45–61.

Hyman, Arthur and James J. Walsh (eds.). *Philosophy in the Middle Ages: The Christian, Islamic, and Jewish Traditions*, 2nd edn (Indianapolis, IN: Hackett, 1973).

Idel, Moshe. *The Mystical Experience in Abraham Abulafia* (Albany, NY: State University of New York Press, 1988).

Idel, Moshe and Bernard McGinn (eds.). *Mystical Union in Judaism, Christianity, and Islam: An Ecumenical Dialogue* (New York: Continuum, 1999).

Ierodiakonou, Katerina. "The Anti-Logical Movement in the Fourteenth Century," in K. Ierodiakonou (ed.) *Byzantine Philosophy and its Ancient Sources* (Oxford: Clarendon Press, 2002) 219–36.

    "Byzantine Commentators on the Epistemic Status of Ethics," in P. Adamson *et al.* (eds.) *Philosophy, Science, and Exegesis in Greek, Arabic, and Latin Commentaries* (London: Institute of Classical Studies, 2004) 221–38.

    (ed.). *Byzantine Philosophy and its Ancient Sources* (Oxford: Oxford University Press, 2002).

    "The Byzantine Reception of Aristotle's *Categories*," *Synthesis Philosophica* 39 (2005) 7–31.

    "John Italos on Universals," *Documenti e studi sulla tradizione filosofica medievale* 18 (2007) 231–47.

    "Metaphysics in the Byzantine Tradition: Eustratios of Nicaea on Universals," *Quaestio* 5 (2005) 67–82.

    "Psellos' Paraphrasis on Aristotle's *De interpretatione*," in K. Ierodiakonou (ed.) *Byzantine Philosophy and its Ancient Sources* (Oxford: Clarendon Press, 2002) 157–81.

Ilkhani, Mohammad. *La philosophie de la création chez Achard de Saint-Victor* (Brussels: Ousia, 1999).

Illich, Ivan. *In the Vineyard of the Text: A Commentary to Hugh's* Didascalicon (Chicago: University of Chicago Press, 1993).

Imbach, Ruedi. "Averroistische Stellungnahmen zur Diskussion über das Verhältnis von *Esse* und *Essentia*. Von Siger von Brabant zu Thaddeus von Parma," in A. Maierù and A. Paravicini Bagliani (eds.) *Studi sul xiv secolo in memoria di Anneliese Maier* (Rome: Edizioni di Storia e Letteratura, 1981) 299–339.

"Das *Centheologicon* des Heymericus de Campo und die darin enthaltenen Casnus- Reminisizenzen," *Traditio* 39 (1983) 466–77.

Dante, la philosophie et les laïcs (Fribourg: Éditions universitaires, 1996).

"Notule sur le commentaire du 'Liber de causis' de Siger de Brabant et ses rapports avec Thomas d'Aquin," *Freiburger Zeitschrift für Philosophie und Theologie* 43 (1996) 304–23.

Imbach Ruedi and Ulrika Lindblad. "*Compilatio rudis ac puerilis*. Hinweise und Materialien zu Nikolaus von Strassburg O. P. und seiner *Summa*," *Freiburger Zeitschrift für Philosophie und Theologie* 32 (1985) 155–233.

Incandela, Joseph. "Robert Holcot, O.P., on Prophecy, the Contingency of Revelation, and the Freedom of God," *Medieval Philosophy and Theology* 4 (1994) 165–88.

Ingham, Mary Beth and Mechthild Dreyer. *The Philosophical Vision of John Duns Scotus* (Washington, DC: Catholic University Press, 2004).

Inglis, John. "Aquinas's Replication of the Acquired Moral Virtues," *Journal of Religious Ethics* 27 (1999) 3–27.

Spheres of Philosophical Inquiry and the Historiography of Medieval Philosophy (Leiden: Brill, 1998).

Inwood, Brad (ed.). *The Cambridge Companion to Stoicism* (Cambridge: Cambridge University Press, 2003).

Iogna-Prat, Dominique and Colette Jeudy. *L'école carolingienne d'Auxerre: de Murethach à Rémi, 830–908* (Paris: Beauchesne, 1991).

Iremadze, Tengiz. *Konzeptionen des Denkens im Neuplatonismus: zur Rezeption der proklischen Philosophie im deutschen und georgischen Mittelalter: Dietrich von Freiberg, Berthold von Moosburg, Joane Petrizi* (Amsterdam: Grüner, 2004).

Iribarren, Isabel. *Durandus of St. Pourçain: A Dominican Theologian in the Shadow of Aquinas* (New York: Oxford University Press, 2005).

"'Responsio secundum Thomam' and the Search for an Early Thomistic School," *Vivarium* 39 (2001) 255–96.

Irwin, Terence. "Stoic Naturalism and its Critics," in B. Inwood (ed.) *The Cambridge Companion to Stoicism* (Cambridge: Cambridge University Press, 2003) 345–64.

Issawi, Charles. *An Arab Philosophy of History: Selections from the* Prolegomena *of Ibn Khaldun of Tunis (1332–1406)* (Princeton, NJ: Princeton University Press, 1986).

Ivry, Alfred L. *Al-Kindi's Metaphysics* (Albany: State University of New York Press, 1974).

Ivry, Alfred. "Averroes' Three Commentaries on *De Anima*," in J. A. Aertsen and G. Endress (eds.) *Averroes and the Aristotelian Tradition* (Leiden: Brill, 1999) 199–216.

Iwakuma, Yukio. "Influence," in J. Brower and K. Guilfoy (eds.) *The Cambridge Companion to Abelard* (Cambridge: Cambridge University Press, 2004) 305–35.

"Pierre Abélard et Guillaume de Champeaux dans les premières années du XIIᵉ siècle: une étude préliminaire," in J. Baird (ed.) *Langage, sciences, philosophie au XIIe siècle* (Paris: Vrin, 1999).

"The *Introductiones dialecticae secundum Wilgelmum* and *secundum magistrum G. Paganellum*," *Cahiers de l'Institut du Moyen Age Grec et Latin* 63 (1993) 45–114.

"Vocales, or Early Nominalists," *Traditio* 47 (1992) 37–111.

"William of Champeaux and the *Introductiones*," in H. Braakhuis and C. H. Kneepkens (eds.) *Aristotle's* Peri hermeneias *in the Latin Middle Ages: Essays on the Commentary Tradition* (Groningen: Ingenium, 2003) 1–30.

"William of Champeaux on Aristotle's Categories," in J. Biard and I. Rosier-Catach (eds.) *La tradition médiévale des Catégories XIIᵉ–XIVᵉ siècles. Actes du XIIIᵉ symposium européen de logique et de sémantique médiévales* (Leuven: Peeters, 2003) 313–28.

Iwakuma, Yukio and Sten Ebbesen. "Logico-Theological Schools from the Second Half of the Twelfth Century: A List of Sources," *Vivarium* 30 (1992) 173–210.

Jabre, Farid. *La notion de certitude selon Ghazali dans ses origines psychologiques et historiques* (Paris: Vrin, 1958).

Jacobi, Klaus. "Einzelnes-Individuum-Person. Gilbert von Poitier's Philosophie des Individuellen," in J. Aertsen and A. Speer (eds.) *Individuum und Individualität im Mittelalter* (Berlin: De Gruyter, 1995).

Gespräche lesen: philosophische Dialoge im Mittelalter (Tübingen: Narr, 1999).

Die Methode der cusanischen Philosophie (Munich: Alber, 1969).

Die Modalbegriffe in den logischen Schriften des Wilhelm von Shyreswood und in anderen Kompendien des 12. et 13. Jahrhunderts (Leiden: Brill, 1980).

"Peter Abelard's Investigations into the Meaning and Function of the Speech Sign 'Est'," in S. Knuutila and J. Hintikka (eds.) *The Logic of Being* (Dordrecht: Reidel, 1986) 145–80.

Jacobs, Louis. *Principles of the Jewish Faith: An Analytical Study* (New York: Basic Books, 1964).

Jacquart, Danielle. "Aristotelian Thought in Salerno," in P. Dronke (ed.) *A History of Twelfth-Century Western Philosophy* (Cambridge: Cambridge University Press, 1988) 407–28.

"De l'Arabe au Latin: l'influence de quelque choix lexicaux (*impressio, ingenium, intuitio*)," in J. Hamesse (ed.) *Aux origines du lexique philosophique europeen* (Louvain-la-Neuve: Fédération internationale des instituts d'études médiévales, 1997) 167–80.

James, T. E. "Peter Alboini of Mantua: Philosopher-Humanist," *Journal of the History of Philosophy* 12 (1974) 161–70.

Jansen, Bernhard. *Die Erkenntnislehre Olivis* (Berlin: Duemmlers, 1921).

Janssens, Jules L. *An Annotated Bibliography on Ibn Sînâ (1970–1989) including Arabic and Persian Publications and Turkish and Russian References* (Leuven: Leuven University Press, 1991).

An Annoted Bibliography on Ibn Sina: First Supplement (1990–1994) (Louvain-la-Neuve: Fédération internationale des instituts d'études médiévales, 1999).

"Bahmanyār, and his Revision of Ibn Sīnā's Metaphysical Project," *Medioevo* 32 (2007) 99–117.

"Bahmanyār ibn al-Marzubān: A Faithful Disciple of Ibn Sīnā?" in D. C. Reisman and A. H. al-Rahīm (eds.) *Before and After Avicenna: Proceedings of the First Conference of the Avicenna Study Group* (Leiden: Brill, 2003) 177–98.

Ibn Sina and his Influence on the Arabic and Latin World (Burlington, VT: Ashgate, 2006).

Janssens, Jules L. and Daniel de Smet (eds.). *Avicenna and his Heritage* (Leuven: Leuven University Press, 2002).

Jantzen, Grace. *Julian of Norwich: Mystic and Theologian* (London: Paulist Press, 1987).

Jeauneau, Édouard. *L'âge d'or des écoles de Chartres* (Chartres: Éditions Houvet, 1995).

"Le commentaire de Guillaume de Lucques sur les Noms Divins," in T. Boiadjiev *et al.* (eds.) *Die Dionysius-Rezeption im Mittelalter* (Turnhout: Brepols, 2000) 177–95.

"Deux rédactions des gloses de Guillaume de Conches sur Priscien," *Recherches de théologie ancienne et médiévale* 27 (1960) 212–47.

Études érigéniennes (Paris: Études Augustiniennes, 1987).

"L'héritage de la philosophie antique durant le haut Moyen Âge," *Settimane di studio del Centro Italiano di studi sull'alto medioevo* 22 (1975) 17–54.

Lectio philosophorum: recherches sur l'École de Chartres (Amsterdam: Hakkert, 1973).

Jensen, Kurt Villads. "Robert Holkot's *Questio* on Killing Infidels: A Reevaluation and an Edition," *Archivum Fratrum Praedicatorum* 63 (1993) 207–28.

Joannou, Périclès-Pierre. *Christliche Metaphysik in Byzanz: die Illuminationslehre des Michael Psellos und Johannes Italos* (Ettal: Buch-Kunstverlag, 1956).

"Die Definition des Seins bei Eustratios von Nikaia," *Byzantinische Zeitschrift* 47 (1954) 358–68.

"Der Nominalismus und die menschliche Psychologie Christ," *Byzantinische Zeitschrift* 47 (1954) 369–78.

Johnson, James Turner. *Ideology, Reason, and the Limitation of War: Religious and Secular Concepts, 1200–1740* (Princeton, NJ: Princeton University Press, 1975).

Just War Tradition and the Restraint of War. A Moral and Historical Inquiry (Princeton, NJ: Princeton University Press, 1981).

Johnston, Mark D. *The Evangelical Rhetoric of Ramon Llull* (New York: Oxford University Press, 1995).

The Spiritual Logic of Ramon Llull (Oxford: Clarendon Press, 1987).

Jolivet, Jean. *Abélard, ou la philosophie dans le langage* (Paris: Seghers, 1969).

"The Arabic Inheritance," in P. Dronke (ed.) *A History of Twelfth-Century Western Philosophy* (Cambridge: Cambridge University Press, 1988) 113–48.

Godescalc d'Orbais et la trinité (Paris: Vrin, 1958).

"L'intellect et le langage selon Radulphus Brito," in Z. Kaluza and P. Vignaux (eds.) *Preuve et raisons à l'Université de Paris: logique, ontologie et théologie au XIVe siècle* (Paris: Vrin, 1985) 83–91.

L'intellect selon Kindi (Leiden: Brill, 1971).

Philosophie médiévale arabe et latine (Paris: Vrin, 1995).

Jolivet, Jean and Alain de Libera (eds.). *Gilbert de Poitiers et ses contemporains: aux origines de la logica modernorum* (Naples: Bibliopolis, 1987).

Jordan, Mark D. "Aquinas's Construction of a Moral Account for the Passions," *Freiburger Zeitschrift für Philosophie und Theologie* 33 (1986) 71–97.

"The Controversy of the *Correctoria* and the Limits of Metaphysics," *Speculum* 57 (1982) 292–314.

"The Disappearance of Galen in Thirteenth-Century Philosophy and Theology," in A. Zimmermann *et al.* (eds.) *Mensch und Natur im Mittelalter* (Berlin: De Gruyter, 1992) 703–17.

Jordan, William C. *Unceasing Strife, Unending Fear: Jacques de Thérines and the Freedom of the Church in the Age of the Last Capetians* (Princeton, NJ: Princeton University Press, 2005).

Jospe, Raphael. *Torah and Sophia: The Life and Thought of Shem Tov ibn Falaquera* (Cincinnati, OH : Hebrew Union College Press, 1988).

Joutsivuo, Timo. *Scholastic Tradition and Humanist Innovation: The Concept of Neutrum in Renaissance Medicine* (Helsinki: Academia Scientiarum Fennica, 1999).

Jullien, Marie-Hélène and Françoise Perelman. *Clavis des auteurs latins du moyen age: territoire français, 735–987. Tomus II: Alcuin* (Turnhout: Brepols, 1999).

Jung-Palczewska, Elzbieta. "The Concept of Time in Richard Kilvington," in L. Cova and G. Alliney (eds.) *Tempus aevum aeternitatis: la conzettualizzazione del tempo nel pensiero tardomedievale* (Florence: Olschki, 2000) 141–67.

"Motion in a Vacuum and in a Plenum in Richard Kilvington's Question: *Utrum aliquod corpus simplex posset moveri aeque velociter in vacuo et in pleno* from the 'Commentary on the Physics'," *Miscellanea Medievalia* 25 (1997) 179–93.

"La question quodlibétique *De infinitate vigoris Dei* de Thomas de Wylton," *Archives d'histoire doctrinale et littéraire du moyen âge* 64 (1997) 347–403.

"Works by Richard Kilvington," *Archives d'histoire doctrinale et littéraire du moyen âge* 67 (2000) 181–223.

"Wylton's Solution of the Aristotelian Problem of God's Infinite Power," in J. Marenbon (ed.) *Aristotle in Britain during the Middle Ages* (Turnhout: Brepols, 1996) 311–23.

Jüssen, Gabriel. "Wilhelm von Auvergne und die Transformation der scholastischen Philosophie im 13. Jahrhundert," in J. P. Beckmann *et al.* (eds.) *Philosophie im Mittelalter* (Hamburg: Meiner, 1987) 141–64.

Juste, David. "Neither Observation nor Astronomical Tables. An Alternative Way of Computing the Planetary Longitudes in the Early Western Middle Ages," in C. Burnett *et al.* (eds.) *Studies in the History of the Exact Sciences in Honour of David Pingree* (Leiden: Brill, 2004) 181–222.

Kaczmarek, Ludger. "Erhard Knab von Zwiefalten († 1480): *Improbatio modorum significandi*. Edition nach den Handschriften," in K. D. Dutz (ed.) *Individuation, Sympnoia panta, Harmonia, Emanation: Festgabe H. Schepers* (Münster: Nodus, 2000) 109–55.

"'Magister Sotphi': Gerhard von Zutphens *Glosa notabilis* (1487–88) und die Geschichter der Grammatik im 15. Jahrhundert," in K. D. Dutz and K.-A. Forsgren (eds.) *History and Rationality* (Münster: Nodus, 1995) 75–92.

Kaeppeli, Thomas. *Le procès contre Thomas Waleys, O.P.: étude et documents* (Rome: Ad S. Sabinae, 1936).

Scriptores Ordinis Praedicatorum Medii Aevi (Rome: Sabina, 1970–3).

Kalb, Herbert. *Studien zur Summa Stephans von Tournai* (Innsbruck: Universitätsverlag Wagner, 1983).

Kaldellis, Anthony. *The Argument of Psellos' Chronographia* (Leiden: Brill, 1999).

Kaluza, Zénon. "Le 'De universali reali' de Jean de Maisonneuve et les 'epicuri litterales'," *Freiburger Zeitschrift für Philosophie und Theologie* 33 (1986) 469–516.

"Les débuts de l'albertisme tardif (Paris et Cologne)," in M. J. F. M. Hoenen and A. de Libera (eds.) *Albertus Magnus und der Albertismus: Deutsche philosophische Kultur des Mittelalters* (Leiden: Brill, 1995) 207–95.

"Jérôme de Prague et le Timée de Platon," *Archives d'histoire doctrinale et littéraire du moyen age* 61 (1994) 59–104.

"La nature des écrits de Jean de Ripa," *Traditio* 43 (1987) 257–98.

Nicolas d'Autrécourt: ami de la vérité (*Histoire littéraire de la France: suite du quatorzième siècle*) (Paris: Académie des inscriptions et belles-lettres, 1995).

"L'œuvre théologique de Richard Brinkley, OFM," *Archives d'histoire doctrinale et littéraire du moyen âge* 56 (1989) 169–273.

Les querelles doctrinales à Paris: nominalistes et réalistes aux confins du XIVe et du XVe siècles (Bergamo: Lubrina, 1988).

"Les sciences et leurs langages: Note sur le statut du 29 décembre 1340 et le prétendu statut perdu contre Ockham," in L. Bianchi (ed) *Filosfia e teologia nel trecento: studi in ricordo di Eugenio Randi* (Louvain-la-Neuve: Fédération internationale des instituts d'études médiévales, 1994) 197–258.

Kaminsky, Herbert. *A History of the Hussite Revolution* (Berkeley: University of California Press, 1967).

Kandler, Karl-Hermann, Burkhard Mojsisch, and Franz-Bernhard Stammkötter (eds.). *Dietrich von Freiberg: neue Perspektiven seiner Philosophie, Theologie und Naturwissenschaft* (Amsterdam: Grüner, 1999).

Kann, Christoph. *Die Eigenschaften der Termini: eine Untersuchung zur "Perutilis Logica" des Alberts von Sachsen* (Leiden: Brill, 1994).

Kantorowicz, Hermann. "The Poetical Sermon of a Mediæval Jurist: Placentinus and His 'Sermo de Legibus'," *Journal of the Warburg Institute* 2 (1938) 22–41.

Kantorowicz, Hermann and W. W. Buckland. *Studies in the Glossators of the Roman Law: Newly Discovered Writings of the 12th Century* (Cambridge: Cambridge University Press, 1938; repr. Aalen: Scientia-Verlag, 1969).

Kapriev, Georgi. *Ipsa vita et veritas: der ontologische Gottesbeweis und die Ideenwelt Anselms von Canterbury* (Leiden: Brill, 1998).

"The Modern Study of Byzantine Philosophy," *Bulletin de philosophie médiévale* 48 (2006) 3–13.

Karamanolis, George. "Plethon and Scholarios on Aristotle," in K. Ierodiakonou (ed.) *Byzantine Philosophy and its Ancient Sources* (Oxford: Oxford University Press, 2002) 253–82.

Karger, Elizabeth. "Richard Rufus's Account of Substantial Transmutation," *Medioevo* 27 (2002) 168–91.

"La supposition materielle comme suppositions significative: Paul de Venice, Paul de Pergula," in A. Maierù (ed.) *English Logic in Italy in the 14th and 15th Centuries* (Naples: Bibliopolis, 1982) 331–41.

"Walter Burley's Realism," *Vivarium* 37 (1999) 24–40.

"William of Ockham, Walter Chatton and Adam Wodeham on the Objects of Knowledge and Belief," *Vivarium* 33 (1995) 171–96.

Katz, Bernard. "On a *Sophisma* of Richard Kilvington and a Problem of Analysis," *Medieval Philosophy and Theology* 5 (1996) 31–8.

Katz, Steven T. (ed.). *Saadiah Gaon* (New York: Arno Press, 1980).

Kaukua, Jari. *Avicenna on Subjectivity: A Philosophical Study* (Jyväskylä: University of Jyväskylä Press, 2007).

Kaye, Joel. *Economy and Nature in the Fourteenth Century: Money, Market Exchange, and the Emergence of Scientific Thought* (New York: Cambridge University Press, 1998).

Kaye, Sharon. "Why the Liberty of Indifference Is Worth Wanting: Buridan's Ass, Friendship, and Peter John Olivi," *History of Philosophy Quarterly* 21 (2004) 21–42.

Kazhdan, Alexander P. *et al. The Oxford Dictionary of Byzantium* (New York: Oxford University Press, 1991).

Keele, Rondo. "Can God Make a Picasso? William Ockham and Walter Chatton on Divine Power and Real Relations," *Journal of the History of Philosophy* 45 (2007) 395–411.

"The Logical and Scientific Treatises of John Chilmark (†1396)," *Bulletin de philosophie médiévale* 49 (2007) 119–37.

"Oxford *Quodlibeta* from Ockham to Holcot," in C. Schabel (ed.) *Theological Quodlibeta in the Middle Ages: The Fourteenth Century* (Leiden: Brill, 2007) 651–92.

"The So-Called *Res* Theory of Walter Chatton," *Franciscan Studies* 61 (2003) 37–53.

"Walter Chatton," in E. Zalta (ed.) *The Stanford Encyclopedia of Philosophy* (Fall 2006 edition): http://plato.stanford.edu/archives/fall2006/entries/walter-chatton/.

Keen, Maurice. *The Laws of War in the Late Middle Ages* (London: Routledge, 1965).

Kelley, Francis E. "Robert Orford's Attack on Giles of Rome," *The Thomist* 51 (1987) 70–96.

"Some Observations on the Fictum Theory in Ockham and its Relation to Hervaeus Natalis," *Franciscan Studies* 38 (1978) 260–82.

"Two Early English Thomists: Thomas Sutton and Robert of Orford vs. Henry of Ghent," *The Thomist* 45 (1981) 371–80.

"Walter Chatton vs. Aureoli and Ockham Regarding the Universal Concept," *Franciscan Studies* 41 (1981) 222–49.

Kellner, Menachem. "Dogma in Medieval Jewish Thought: A Bibliographical Survey," *Studies in Bibliography and Booklore* 15 (1984) 5–21.

Dogma in Medieval Jewish Thought: From Maimonides to Abravanel (Oxford: Oxford University Press, 1986).

Kelly, Louis G. *The Mirror of Grammar: Theology, Philosophy and the Modistae* (Amsterdam: Benjamins, 2002).

"La *Physique* d'Aristote et la phrase simple dans les traités de grammaire spéculative," in A. Joly and J. Stefanini (eds.) *La grammaire spéculative: des Modistes aux Idéologues* (Lille: Presses universitaires, 1977) 105–24.

Kempshall, M. S. *The Common Good in Late Medieval Political Thought* (Oxford: Clarendon Press, 1999).

Kennedy, Angus J. *Christine de Pizan: A Bibliographical Guide* (London: Grant and Cutler, 1984).

Kennedy, Leonard A. "The *De anima* of John Sharpe," *Franciscan Studies* 29 (1969) 249–70.

"Mediaevalia. I. Robert Graystanes' Commentary on the *Sentences*," *Recherches de théologie ancienne et médiévale* 53 (1986) 185–9.

Peter of Ailly and the Harvest of Fourteenth-Century Philosophy (Lewiston, PA: E. Mellen Press, 1986.)

The Philosophy of Robert Holcot, Fourteenth-Century Skeptic (Lewiston, PA: E. Mellen Press, 1993).

"Robert Graystanes, O.S.B., on Essence and Existence," *Recherches de théologie ancienne et médiévale* 56 (1989) 102–16.

Kennedy, Leonard A. and Margaret E. Romano. "John Went, O.F.M., and Divine Omnipotence," *Franciscan Studies* 47 (1987) 138–70.

Kenny, Anthony. "Divine Foreknowledge and Human Freedom," in A. Kenny (ed.) *Aquinas: A Collection of Critical Essays* (Notre Dame, IN: University of Notre Dame Press, 1969) 255–70.

"The Realism of *De Universalibus*," in A. Kenny (ed.) *Wyclif in his Times* (Oxford: Clarendon Press, 1986) 17–29.

Wyclif (Oxford: Clarendon Press, 1985).

(ed.). *Wyclif in his Times* (Oxford: Clarendon Press, 1986).

Kenny, Anthony and Jan Pinborg. "Medieval Philosophical Literature," in N. Kretzmann *et al.* (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 11–42.

Kent, Bonnie. "Aquinas and Weakness of Will," *Philosophy and Phenomenological Research* 75 (2007) 70–91.

"Aristotle and the Franciscans: Gerald Odonis' Commentary on the 'Nicomachean Ethics'" (Ph.D. dissertation: Columbia University, 1984).

"Aristotle's Ethics, Situationalist Psychology, and a Fourteenth-Century Debate," *History of Philosophy Quarterly* 25 (2008) 95–114.

"Augustine's Ethics," in N. Kretzmann and E. Stump (eds.) *The Cambridge Companion to Augustine* (Cambridge: Cambridge University Press, 2001) 205–33.

"Evil in Later Medieval Philosophy," *Journal of the History of Philosophy* 45 (2007) 177–205.

"Habits and Virtues," in S. J. Pope (ed.) *The Ethics of Aquinas* (Washington, DC: Georgetown University Press, 2002) 116–30.

"Rethinking Moral Dispositions: Scotus on the Virtues," in Thomas Williams (ed.) *The Cambridge Companion to Duns Scotus* (Cambridge: Cambridge University Press, 2003) 352–76.

Virtues of the Will: The Transformation of Ethics in the Late Thirteenth Century (Washington, DC: Catholic University of America Press, 1995).

Kerby-Fulton, Kathryn. "Prophet and Reformer: Smoke in the Vineyard," in B. Newman (ed.) *Voice of the Living Light: Hildegard of Bingen and her World* (Berkeley: University of California Press, 1998).

Kerferd, G. B. *The Sophistic Movement* (Cambridge: Cambridge University Press, 1981).

Kerner, Max. *Johannes von Salisbury und die logische Struktur seines "Policraticus"* (Wiesbaden: Steiner, 1977).

Kéry, Lotte. *Canonical Collections of the Early Middle Ages (ca. 400–1140)* (Washington, DC: Catholic University of America Press, 1999).

Keys, Mary. *Aquinas, Aristotle, and the Promise of the Common Good* (Cambridge: Cambridge University Press, 2006).

Khalidi, Muhammad Ali (tr.). *Medieval Islamic Philosophical Writings* (Cambridge: Cambridge University Press, 2005).

Khan, Qamar-ud-Din. *Al-Mawardi's Theory of the State* (Lahore: Islamic Book Foundation, 1983).
  The Political Thought of Ibn Taymiyah (Islamabad: Islamic Research Institute, 1973).

Kholeif, Fathalla. *A Study on Fakhr al-Din al-Razi and his Controversies in Transoxania* (Beirut: Dar al-Machreq Éditeurs, 1966).

Kianka, Frances. "Demetrius Cydones (c. 1324–c. 1397): Intellectual and Diplomatic Relations between Byzantium and the West in the Fourteenth Century" (Ph.D. dissertation: Fordham University, 1981).

Kieckhefer, Richard. "Mysticism and Social Consciousness in the Fourteenth Century," *Revue de l'Université d'Ottawa* 48 (1978) 179–86.
  Unquiet Souls: Fourteenth-Century Saints and their Religious Milieu (Chicago: University of Chicago Press, 1984).

King, Peter. "Abelard's Intentionalist Ethics," *Modern Schoolman* 72 (1995) 213–31.
  "Aquinas on the Passions," in S. MacDonald and E. Stump (eds.) *Aquinas's Moral Theory: Essays in Honor of Norman Kretzmann* (Ithaca, NY: Cornell University Press, 1999) 101–32.
  "Duns Scotus on the Common Nature and Individual Difference," *Philosophical Topics* 20 (1992) 51–76.
  "Jean Buridan's Philosophy of Science," *Studies in History and Philosophy of Science* 18 (1987) 109–32.
  "Late Scholastic Theories of the Passions: Controversies in the Thomist Tradition," in H. Lagerlund and M. Yrjönsuuri (eds.) *Emotions and Choice from Boethius to Descartes* (Dordrecht: Kluwer, 2002) 229–58.
  "Peter Abailard and the Problem of Universals in the Twelfth Century" (Ph.D. dissertation: Princeton University, 1982).
  "Peter Abelard," in E. Zalta (ed.) *The Stanford Encyclopedia of Philosophy* (Fall 2004 edition): http://plato.stanford.edu/archives/fall2004/entries/abelard/.
  "Rethinking Representation in the Middle Ages," in H. Lagerlund (ed.) *Representation and Objects of Thought in Medieval Philosophy* (Aldershot: Ashgate, 2007) 68–86.
  "Scholasticism and the Philosophy of Mind: The Failure of Aristotelian Psychology," in T. Horowitz and A. Janis (eds.) *Scientific Failure* (Lanham, MD: Rowman and Littlefield, 1994) 109–38.
  "Scotus on Metaphysics," in T. Williams (ed.) *The Cambridge Companion to Duns Scotus* (Cambridge: Cambridge University Press, 2003).

Kirchhoff, Raina. *Die Syncategoremata des Wilhelm von Sherwood: Kommentierung und Historische Einordnung* (Leiden: Brill, 2008).

Kirjavainen, Heikki. "Transcendental Elements in the Semantics of Crathorn," in G. Holmström-Hintikka (ed.) *Medieval Philosophy and Modern Times* (Dordrecht: Kluwer, 2000) 45–58.

Kirschner, Stefan. *Nicolaus Oresmes Kommentar zur Physik des Aristoteles* (Stuttgart: Steiner, 1997).

Kirwan, Christopher. *Augustine* (London: Routledge, 1989).

Kitanov, Severin. "Beatific Enjoyment in Scholastic Philosophy and Theology 1240–1335" (Ph.D. dissertation: University of Helsinki, 2006).

Kleineidam, Erich. *Das Problem der hylomorphen Zusammensetzung der geistigen Substanzen im 13. Jahrhundert, behandelt bis Thomas von Aquin* (Breslau: Tesch, 1930).

Klibansky, Raymond. *The Continuity of the Platonic Tradition during the Middle Ages: Outlines of a Corpus Platonicum Medii Aevi* (London: Warburg Institute, 1939; repr. Munich: Kraus, 1981).

Klima, Gyula. "Buridan's Logic and the Ontology of Modes," in S. Ebbesen and R. L. Friedman (eds.) *Medieval Analyses in Language and Cognition* (Copenhagen: Royal Danish Academy of Sciences and Letters, 1999) 473–95.

"The Changing Role of *Entia Rationis* in Medieval Philosophy: A Comparative Study with a Reconstruction," *Synthese* 96 (1993) 25–59.

"Consequences of a Closed, Token-Based Semantics: The Case of John Buridan," *History and Philosophy of Logic* 25 (2004) 95–110.

" 'Debeo tibi equum': A Reconstruction of the Theoretical Framework of Buridan's Treatment of the Sophisma," in S. Read (ed.) *Sophisms in Medieval Logic and Grammar: Acts of the Ninth European Symposium for Medieval Logic and Semantics* (Dordrecht: Kluwer, 1993) 333–47.

"Existence and Reference in Medieval Logic," in A. Hieke and E. Morscher (eds.) *New Essays in Free Logic* (Dordrecht: Kluwer, 2001) 197–226.

John Buridan (Oxford: Oxford University Press, 2009).

"The Medieval Problem of Universals," in E. Zalta (ed.) *The Stanford Encyclopedia of Philosophy* (Winter 2004 edition): http://plato.stanford.edu/archives/win2004/entries/universals-medieval.

"Nominalism," in E. K. Brown (ed.) *Encyclopedia of Language and Linguistics*, 2nd edn (Boston: Elsevier, 2006) 8: 648–52.

"Ockham's Semantics and Ontology of the Categories," in P. V. Spade (ed.) *The Cambridge Companion to Ockham* (Cambridge: Cambridge University Press, 1999) 118–42.

"Peter of Spain, the Author of the *Summulae*," in J. J. E. Gracia and T. Noone (eds.) *A Companion to Philosophy in the Middle Ages* (Oxford: Blackwell, 2003) 526–31.

" 'Socrates est species': Logic, Metaphysics, and Psychology in St. Thomas Aquinas' Treatment of a Paralogism," in K. Jacobi (ed.) *Argumentationstheorie: Scholastische Forschungen zu den logischen und semantischen Regeln korrekten Folgerns* (Leiden: Brill, 1993) 489–504.

"Syncategoremata," in E. K. Brown and A. Anderson (eds.) *Encyclopedia of Language and Linguistics*, 2nd edn (Boston: Elsevier, 2006) 12: 353–6.

"Thomas of Sutton on the Nature of the Intellective Soul and the Thomistic Theory of Being," in J. Aertsen *et al.* (eds.) *Nach der Verurteilung von 1277: Philosophie und Theologie an der Universität von Paris im letzten Viertel des 13. Jahrhunderts: Studien und Texte* (Berlin: De Gruyter, 2001) 436–55.

Kluge, E.-H. "Roscelin and the Medieval Problem of Universals," *Journal of the History of Philosophy* 14 (1976) 405–14.

Kluxen, Wolfgang. "Literargeschichtliches zum lateinischen Moses Maimonides," *Recherches de théologie ancienne et médiévale* 21 (1954), 23–50.

Kneepkens, C. H. "The *Absoluta cuiuslibet* attributed to P.H. Some Notes on its Transmission and the Use Made of it by Robert Kilwardby and Roger Bacon," in I. Angelelli and P. Pérez-Ilzarbe (eds.) *Medieval and Renaissance Logic in Spain: Acts of the 12th European Symposium on Medieval Logic and Semantics* (Hildesheim: Georg Olms Verlag, 2000) 373–403.

"Absolutio: A Note on the Development of a Grammatical Notion," in I. Rosier (ed.) *L'héritage des grammairiens latins, de l'antiquité aux lumières* (Leuven: Peeters, 1988) 155–69.

"Erfurt, Ampl. Q.70A: A Quaestiones-Commentary on the Second Part of Alexander de Villa Dei's *Doctrinale* by Marsilius of Inghen? An Explorative Note on a Specimen of Conceptualist Grammar," *Vivarium* 28 (1990) 26–54.

"Grammar and Semantics in the Twelfth Century: Petrus Helias and Gilbert de la Porrée on the Substantive Verb," in M. Kardaun and J. Spruyt (eds.) *The Winged Chariot: Collected Essays on Plato and Platonism in Honour of L.M. de Rijk* (Leiden: Brill, 2000) 237–75.

Het Iudicium Constructionis: Het Leerstuk van de Constructio in de 2de Helft van de 12de Eeuw (Nijmegen: Ingenium, 1987).

"Master Guido and his View on Government: On Twelfth-Century Linguistic Thought," *Vivarium* 16 (1978) 108–41.

"*Mulier quae Damnavit Salvavit*. A Note of the Early Development of the Relatio Simplex," *Vivarium* 14 (1976) 1–25.

"The Mysterious Buser Again: William Buser of Heusden and the 'Obligationes' Tract 'Ob rogatum'," in A. Maierù (ed.) *Early Logic in Italy* (Naples: Bibliopolis, 1982) 147–66.

"On the Notion of *Constructio* in Conceptualist Grammar: Quaestio XXXV of the *Doctrinale*-Commentary Preserved in Erfurt, Amplon. Q. 70A and attributed to a Master Marcilius," in H. A. G. Braakhuis and M. J. F. M. Hoenen (eds.) *Marsilius of Inghen* (Nijmegen: Ingenium, 1992) 143–72.

"The Priscianic Tradition," in S. Ebbesen (ed.) *Sprachtheorien in Spätantike und Mittelalter* (Tübingen: Narr, 1995) 239–64.

"The *Relatio simplex* in the Grammatical Tracts of the Late Twelfth and Early Thirteenth Century," *Vivarium* 15 (1977) 1–30.

"Roger Bacon on the Double *intellectus*: A Note on the Development of the Theory of *Congruitas* and *Perfectio* in the First Half of the Thirteenth Century," in P. O. Lewry (ed.) *The Rise of British Logic* (Toronto: Pontifical Institute of Mediaeval Studies, 1985) 115–43.

"*Significatio generalis* and *significatio specialis*: Notes on Nicholas of Paris' Contribution to Early Thirteenth-Century Linguistic Thought," in S. Ebbesen and R. L. Friedman (eds.) *Medieval Analyses in Language and Cognition* (Copenhagen: Reitzels, 1999) 17–43.

"Some Notes on the Revival of Modistic Linguistics in the Fifteenth Century: Ps.-Johannes Versor and William Zenders of Weert," in R. L. Friedman and S. Ebbesen (eds.) *John Buridan and Beyond 1300–1700* (Copenhagen: Royal Danish Academy of Sciences and Letters, 2004) 69–119.

" 'Suppositio' and 'supponere' in 12th-Century Grammar," in J. Jolivet and A. de Libera (eds.) *Gilbert de Poitiers et ses contemporains: aux origines de la logica modernorum* (Naples: Bibliopolis, 1987) 325–51.

"The Tradition of Universal and Speculative Grammar in the Late Middle Ages," in C. Codoñer Merino *et al.* (eds.) *El Brocense y la Humanidades en el siglo XVI* (Salamanca: Ediciones Universidad, 2003) 33–60.

"Transitivity, Intransitivity and Related Concepts in Twelfth-Century Grammar. An Explorative Study," in G. L. Bursill-Hall *et al.* (eds.) *De ortu Grammaticae. Studies in Medieval Grammar and Linguistic Theory in Memory of Jan Pinborg* (Amsterdam: Benjamins, 1990) 161–89.

"The *Via antiqua* and the *Via moderna* in Grammar: The Late Medieval Discussions on the Subject of the Sentence," in A. Maierù and L. Valente (eds.) *Medieval Theories on Assertive and Non-Assertive Language* (Florence: Olschki, 2004) 219–44.

"Willem Buser of Heusden's Obligationes-Treatise 'Ob rogatum': A Ressourcement in the Doctrine of Logical Obligation?" in K. Jacobi (ed.) *Argumentationstheorie: scholastische Forschungen zu den logischen und semantischen Regeln korrekten Folgerns* (Leiden: Brill, 1993) 343–62.

Knowles, David. *The Evolution of Medieval Thought* (New York: Vintage Books, 1962).

The Religious Orders in England (Cambridge: Cambridge University Press, 1948–9).

Knuuttila, Simo. "The Emergence of the Logic of the Will in Medieval Thought," in G. B. Matthews (ed.) *The Augustinian Tradition* (Berkeley: University of California Press, 1999) 207–21.

Emotions in Ancient and Medieval Philosophy (Oxford: Clarendon Press, 2004).

Modalities in Medieval Philosophy (London: Routledge, 1993).

"Time and Creation in Augustine," in N. Kretzmann and E. Stump (eds.) *The Cambridge Companion to Augustine* (Cambridge: Cambridge University Press, 2001) 103–15.

"Trinitarian Sophisms in Robert Holcot's Theology," in S. Read (ed.) *Sophisms in Medieval Logic and Grammar: Acts of the Ninth European Symposium for Medieval Logic and Semantics* (Dordrecht: Kluwer, 1993) 348–56.

Knysh, George. *Fragments of Ockham Hermeneutics* (Winnipeg: WCU Council of Learned Societies, 1997).

Political Ockhamism (Winnipeg: WCU Council of Learned Societies, 1996).

Kobler, Franz. *Letters of Jews through the Ages: From Biblical Times to the Middle of the Eighteenth Century* (London: Ararat Publishing Society, 1953).

Koch, Georg. *Manegold von Lautenbach und die Lehre von der Volkssouveränität unter Heinrich IV* (Berlin: Ebering, 1902; repr. Vaduz: Kraus, 1965).

Koch, Josef. "Augustinischer und Dionysischer Neuplatonismus und das Mittelalter," in W. Beierwaltes (ed.) *Platonismus in der Philosophie des Mittelalters* (Darmstadt: Wissenschaftliche Buchgesellschaft, 1969) 317–42.

Durandus de S. Porciano, O.P.: Forschungen zum Streit um Thomas von Aquin zu Beginn des 14. Jahrhunderts (Münster: Aschendorff, 1927).

"Jakob von Metz O.P., der Lehrer des Durandus de S. Porciano, O.P.," *Archives d'histoire doctrinale et littéraire du moyen âge* 4 (1929) 169–229.

"Neue Aktenstücke zu dem gegen Wilhelm Ockham in Avignon geführten Prozess," in *Kleine Schriften* (Rome: Edizioni di Storia e Letteratura, 1973) II: 275–365.

"Der Prozess gegen den Magister Johannes de Polliaco und seine Vorgeschichte," *Recherches de théologie ancienne et médiévale* 5 (1933) 391–422.

Kogan, Barry. *Averroes and the Metaphysics of Causation* (Albany: State University of New York Press, 1985).

"Judah Halevi and his Use of Philosophy in the *Kuzari*," in D. H. Frank and O. Leaman (eds.) *The Cambridge Companion to Medieval Jewish Philosophy* (Cambridge: Cambridge University Press, 2003) 111–35.

Köhler, T.W. *Der Begriff der Einheit und ihr ontologisches Prinzip nach dem Sentenzenkommentar des Jakob von Metz O.P.* (Rome: Herder, 1971).

"Wissenschaft und Evidenz: Beobachtungen zum wissenschaftstheoretischen Ansatz des Jakob von Metz," in T. W. Köhler (ed.) *Sapientiae procerum amore: mélanges médiévistes offerts à Dom Jean-Pierre Müller* (Rome: Herder, 1974) 369–414.

Kölmel, W. "Einheit und Zweiheit der Gewalt im Corpus Mysticum: zur Souveränitätslehre des Augustinus Triumphus," *Historische Jahrbuch* 82 (1963) 103–47.

König, Dietrich. *Tolomeo von Lucca: ein biographischer versuch* (Harburg: Lühmann, 1878).

König-Pralong, Catherine. *Avènement de l'aristotélisme en terre chrétienne* (Paris: Vrin, 2005).

Konstan, David. *The Emotions of the Ancient Greeks: Studies in Aristotle and Classical Literature* (Toronto: University of Toronto Press, 2006).

Köpf, Ulrich. *Religiöse Erfahrung in der Theologie Bernhards von Clairvaux* (Tübingen: Mohr, 1980).

Korolec, J. B. "Gilles d'Orléans et ses conceptions de philosophie morale," in M. Asztalos *et al.* (eds.) *Knowledge and the Sciences in Medieval Philosophy: Proceedings of the Eighth International Congress of Medieval Philosophy* (Helsinki: Yliopistopaino, 1990) III: 224–33.

Kosman, L. A. "Aristotle's Definition of Motion," *Phronesis* 14 (1969) 40–62.

Kotzia, P. *Περί του Μήλου ή Περί της Αριστοτέλους Τελευτής (Liber de Pomo sive De morte Aristotilis)* (Thessaloniki: Ekdoseis Thyrathen, 2007).

Kovach, Francis Joseph and Robert W. Shahan (eds.). *Albert the Great: Commemorative Essays* (Norman: University of Oklahoma Press, 1980).

Kraemer, Joel L. *Humanism in the Renaissance of Islam: The Cultural Revival during the Buyid Age* (Leiden: Brill, 1986).

(ed.) *Perspectives on Maimonides: Philosophical and Historical Studies* (Oxford: Oxford University Press, 1991).

Philosophy in the Renaissance of Islam: Abu Sulayman al-Sijistani and his Circle (Leiden: Brill, 1986).

Kraus, Paul. *Jābir ibn Ḥayyān: contribution à l'histoire des idées scientifiques dans l'Islam* (Cairo: Institut français d'archéologie orientale, 1942–3).

"Zu Ibn al-Muqaffaʿ," *Rivista degli Studi Orientali* 14 (1934) 1–20; repr. in R. Brague (ed.) *Alchemie, Ketzerei, Apokryphen im frühen Islam* (Hildesheim: Olms, 1994) 89–108.

Krause, Feliks. "Abriss der Erkenntnistheorie bei Alexander von Alessandria," *Studia Mediewisty-czne* 20 (1980) 91–125.

Kraye, Jill. "Moral Philosophy," in C. B. Schmitt and Q. Skinner (eds.) *The Cambridge History of Renaissance Philosophy* (Cambridge: Cambridge University Press, 1988) 303–86.

Kremer, Klaus. *Die neuplatonische Seinsphilosophie und ihre Wirkung auf Thomas von Aquin* (Leiden: Brill 1966).

Kretzmann, Norman. "Adam Wodeham's anti-Aristotelian anti-Atomism," *History of Philosophy Quarterly* 4 (1984) 381–98.

"The Culmination of the Old Logic in Peter Abelard," in R. L. Benson and J. Constable (eds.) *Renaissance and Renewal in the Twelfth Century* (Cambridge, MA: Harvard University Press, 1982) 488–511.

"A General Problem of Creation: Why Would God Create Anything at All?," in S. MacDonald (ed.) *Being and Goodness: The Concept of the Good in Metaphysics and Philosophical Theology* (Ithaca, NY: Cornell University Press, 1991) 208–28.

"Lex iniusta non est lex: Laws on Trial in Aquinas' Court of Conscience," in J. Finnis (ed.) *Natural Law* (Aldershot: Ashgate, 1991) II: 99–121.

The Metaphysics of Creation: Aquinas's Natural Theology in Summa Contra Gentiles II (Oxford: Clarendon Press, 1999).

The Metaphysics of Theism: Aquinas's Natural Theology in Summa Contra Gentiles I (Oxford: Clarendon Press, 1997).

"Socrates is Whiter than Plato Begins to be White," *Noûs* 11 (1977) 3–15.

"Syncategoremata, Exponibilia, Sophismata," in N. Kretzmann *et al.* (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 211–45.

Kretzmann, Norman, Anthony Kenny, and Jan Pinborg (eds.). *The Cambridge History of Later Medieval Philosophy: From the Rediscovery of Aristotle to the Disintegration of Scholasticism. 1100–1600* (Cambridge: Cambridge University Press, 1982).

Kretzmann, Norman and Eleonore Stump (eds.). *The Cambridge Companion to Aquinas* (Cambridge: Cambridge University Press, 1993).

    The Cambridge Companion to Augustine (Cambridge: Cambridge University Press, 2001).

    The Cambridge Translations of Medieval Philosophical Texts, vol. 1: *Logic and the Philosophy of Language* (Cambridge: Cambridge University Press, 1988).

Krey, Philip D. W. and Lesley Smith (eds.). *Nicholas of Lyra: The Senses of Scripture* (Leiden: Brill, 2000).

Krieger, Gerhard. *Der Begriff der praktischen Vernunft nach Johannes Buridanus* (Münster: Aschendorff, 1986).

    "Studies on Walter Burley, 1989–1997," *Vivarium* 37 (1999) 94–100.

    Subjekt und Metaphysik: Die Metaphysik des Johannes Buridan (Münster: Aschendorff, 2003).

Kristeller, Paul Oskar. "The School of Salerno: Its Development and its Contribution to the History of Learning," in *Storia e Letteratura: Raccolta di studi e testi 54: Studies in Renaissance Thought and Letters* (Rome: Edizioni di Storia e Letteratura, 1956) 287–336.

Kristeller, Paul Oskar *et al.* (eds.). *Catalogus translationum et commentariorum: Mediaeval and Renaissance Latin Translations and Commentaries: Annotated Lists and Guides* (Washington, DC: Catholic University of America Press, 1960–).

Kritzeck, James. *Peter the Venerable and Islam* (Princeton, NJ: Princeton University Press, 1964).

Krüger, Karl. *Des Ptolomäus Lucensis Leben und Werke* (Göttingen: Huth, 1874).

Kukkonen, Taneli. "Averroes and the Teleological Argument," *Religious Studies* 38 (2002) 405–28.

    "The Impossible, insofar as it Is Possible: Ibn Rushd and Buridan on Logic and Natural Theology," in D. Perler and U. Rudolph (eds.) *Logik und Theologie: das Organon im arabischen und im lateinischen Mittelalter* (Leiden: Brill, 2005) 447–67.

    "No Man Is an Island: Nature and Neo-Platonic Ethics in Ḥayy Ibn Yaqẓān," *Journal of the History of Philosophy* 46 (2008) 187–204.

    "Possible Worlds in the *Tahâfut al-falâsifa:* Al-Ghazâlî on Creation and Contingency," *Journal of the History of Philosophy* 38 (2000) 479–502.

Kuksewicz, Zdzisław. *Averroïsme bolonais au XIVᵉ siècle* (Wroclaw: Ossolineum, 1965).

    De Siger de Brabant à Jacques de Plaisance: la théorie de l'intellect chez les averroïstes latins des XIIIᵉ et XIVᵉ siècles (Wroclaw: Editions de l'Academie Polonaise des Sciences, 1968).

    "Guillaume d'Alnwick: trois questions anti-averroistes sur l'âme intellect," *Studia Mediewistyczne* 7 (1966) 3–76.

    "Paolo Veneto e la sua teoria dell'anima," in L. Olivieri (ed.) *Aristotelismo veneto e scienza moderna* (Padua: Antenore, 1983) 130–64.

    "Some Remarks on Erfurt Averroists," *Studia Mediewistyczne* 32 (1997) 93–121.

    "Der Theorie der Materie des Aegidius von Orléans," in B. Mojsisch and O. Pluta (eds.) *Historia philosophiae medii aevi: Studien zur Geschichte der Philosophie des Mittelalters: Festschrift für Kurt Flasch* (Amsterdam: Benjamins, 1991) 521–34.

Kunitzsch, Paul. "Über das Frühstadium der arabischen Aneignung antiken Gutes," *Saeculum* 26 (1975) 268–82.

Künzle, Pius. *Das Verhältnis der Seele zu ihren Potenzen: Problemgeschichtliche Untersuchungen von Augustin bis und mit Thomas von Aquin* (Freiburg: Universitätsverlag, 1956).

Kürzinger, Josef. *Alfonsus Vargas Toletanus und seine theologische einleitungslehre: ein Beitrag zur Geschichte der Scholastik im 14. Jahrhundert* (Münster: Aschendorff, 1930).

Kuttner, Stephan. "Did Rolandus of Bologna Write a 'Stroma ex Decretorum, corpore captum'?", *Bulletin of Medieval Canon Law*, n.s. 20 (1990) 69–70.

    Gratian and the Schools of Law, 1140–1234 (London: Variorum Reprints, 1983).

    "Graziano: L'uomo e l'opera," *Studia Gratiana* 1 (1953) 17–29.

Laakmann, Reinhold. *Die Königsgewalt bei Manegold von Lautenbach* (Hamburg: Lüdke bei der Uni, 1969).

Laarmann, Matthias. *Deus, primum cognitum: die Lehre von Gott als dem Ersterkannten des menschlichen Intellekts bei Heinrich von Gent (†1293)* (Münster: Aschendorff, 1999).

Laberge, Damascus. "Fr. Petri Ioannis Olivi, O.F.M., tria scripta sui ipsius apologetica annorum 1283 et 1285," *Archivum Franciscanum Historicum* 28 (1935) 115–55, 374–407.

  "Responsio quam fecit Petrus [Ioannis] ad litteram magistrorum, praesentatam sibi in Avinione," *Archivum Franciscanum Historicum* 28 (1935) 115–55, 374–407.

Lacoste, Yves. *Ibn Khaldun: The Birth of History and the Past of the Third World* (London: Verso, 1984).

Ladner, Pascal. *Revolutionäre Kirchenkritik am Basler Konzil? Zum Konziliarismus des Heymericus de Campo* (Basel: Verlag Helbing und Lichtenhahn, 1985).

Lafleur, Claude. *Quatre introductions à la philosophie au XIIIᵉ siècle* (Paris: Vrin, 1988).

Lafleur, Claude and Joanne Carrier (eds.). *L'enseignement de la philosophie au XIIIᵉ siècle: autour du "Guide de l'étudiant" du ms. Ripoll 109* (Turnhout: Brepols, 1997).

  "La 'Philosophia' d'Hervé le Breton (alias Henri le Breton) et le recueil d'introductions à la philosophie du ms. Oxford, Corpus Christi College 283," *Archives d'histoire doctrinale et littéraire du moyen âge* 61 (1994) 149–226; 62 (1995) 359–442.

Lagerlund, Henrik. *Modal Syllogistics in the Middle Ages* (Leiden: Brill, 2000).

  "Pietro d'Abano and the Anatomy of Perception," in S. Knuuttila and P. Kärkkäinen (eds.) *Theories of Perception in Medieval and Early Modern Philosophy* (Dordrecht: Springer, 2008) 117–30.

  (ed.). *Representation and Objects of Thought in Medieval Philosophy* (Aldershot: Ashgate, 2007).

Lagerlund, Henrik and Mikko Yrjönsuuri (eds.). *Emotions and Choice from Boethius to Descartes* (Dordrecht: Kluwer, 2002).

Lahey, Stephen. *Philosophy and Politics in the Thought of John Wyclif* (Cambridge: Cambridge University Press, 2003).

Lambertini, Roberto. "Felicitas politica und speculatio: die Idee der Philosophie in ihrem Verhältnis zur Politik nach Johannes von Jandun," *Miscellanea Mediaevalia* 26 (1998) 984–90.

  "Political Quodlibeta," in C. Schabel (ed.) *Theological Quodlibeta in the Middle Ages: The Thirteenth Century* (Leiden: Brill, 2006) 439–74.

  "Sicut tabernarius vinum significat per circulum: Directions in Contemporary Interpretations of the Modistae," in U. Eco and C. Marmo (eds.) *On the Medieval Theories of Signs* (Amsterdam: Benjamins, 1989) 107–42.

Lambton, Ann. *State and Government in Medieval Islam: An Introduction to the Study of Islamic Political Thought: The Jurists* (Oxford: Oxford University Press, 1981).

  Theory and Practice in Medieval Persian Government (London: Variorum Reprints, 1980).

Lameer, Joep. *Al-Farabi and Aristotelian Syllogistics: Greek Theory and Islamic Practice* (Leiden: Brill, 1994).

Lamoreaux, John C. "The Biography of Theodore Abū Qurrah Revisited," *Dumbarton Oaks Papers* 56 (2002) 25–40.

Landgraf, A. M. *Dogmengeschichte der Früh Scholastik* (Regensburg: Pustet, 1952–6).

  Introduction à l'histoire de la littérature théologique de la scolastique naissante, tr. A.M. Landry and L.-B. Geiger (Montréal: Institut d'études médiévales, 1973).

  "Der Porretanismus der Homilien des Radulphus Ardens," *Zeitschrift für katholische Theologie* 64 (1940) 132–48.

Landsberg, Ernst. *Die Glosse des Accursius und ihre Lehre vom Eigenthum: rechts-und dogmengeschichtliche Untersuchungen* (Leipzig: Brockhaus, 1883).

Lang, Albert. *Heinrich Totting von Oyta: ein Beitrag zur Entstehungsgeschichte der ersten deutschen Universitäten und zur Problemsgeschichte der Spätscholastik* (Münster: Aschendorff, 1937).

Lang, Helen. *The Order of Nature in Aristotle's Physics: Place and the Elements* (Cambridge: Cambridge University Press, 1998).

Langermann, Tzvi. "Maimonides and the Sciences," in D. H. Frank and O. Leaman (eds.) *The Cambridge Companion to Medieval Jewish Philosophy* (Cambridge: Cambridge University Press, 2003) 157–75.

Langholm, Odd. *The Aristotelian Analysis of Usury* (New York: Columbia University Press, 1984).

   Economics in the Medieval Schools: Wealth, Exchange, Value, Money and Usury According to the Paris Theological Tradition, 1200–1350 (Leiden: Brill, 1992).

   The Legacy of Scholasticism in Economic Thought: Antecedents of Choice and Power (Cambridge: Cambridge University Press, 1998).

   The Merchant in the Confessional: Trade and Price in Pre-Reformation Penitential Handbooks (Leiden: Brill, 2003).

   Price and Value in the Aristotelian Tradition (Bergen: Universitetsforlaget, 1979).

   Wealth and Money in the Aristotelian Tradition (New York: Columbia University Press, 1983).

Laoust, Henri. *La politique de Gazali* (Paris: Geuthner, 1970).

Lapidge, Michael, Claudio Leonardi, and Gian Carlo Garfagnini (eds.). *Compendium Auctorum Latinorum Medii Aevi: 500–1500* (Florence: SISMEL, Edizioni del Galluzzo, 2000–).

Lapparent, Pierre. "L'œuvre politique de François de Meyronnes, ses rapports avec celle de Dante," *Archives d'histoire doctrinale et littéraire du moyen âge* 15–7 (1940–2) 5–151.

Larchet, Jean-Claude. *Thérapeutique des maladies spirituelles: une introduction à la tradition ascétique de l'Eglise orthodoxe* (Paris: Cerf, 1997).

Largier, Niklaus. *Bibliographie zu Meister Eckhart* (Freiburg: Universitätsverlag Freiburg, 1989).

La Salle, John and James Blythe. "Was Ptolemy of Lucca a Civic Humanist? Reflections on a Newly-Discovered Manuscript of Hans Baron," *History of Political Thought* 26 (2005) 236–65.

Lasker, Daniel J. "Jewish-Christian Polemics at the Turning Point: Jewish Evidence from the Twelfth Century," *Harvard Theological Review* 89 (1996) 161–73.

   Jewish Philosophical Polemics against Christianity in the Middle Ages (New York: Ktav Publication House, 1977).

Laumakis, John. "Aquinas' Misinterpretation of Avicebron on the Activity of Corporeal Substances: *Fons Vitae* II, 9 and 10," *Modern Schoolman* 81 (2004) 135–49.

Laurent, M. H. "Armandus de Bevézer et son commentaire sur le *De ente et essentia*," *Revue Thomiste* 35 (1930) 426–36.

   Le bienheureux Innocent V (Pierre de Tarentaise) et son temps (Vatican: Biblioteca Apostolica Vaticana, 1947).

Law, Vivien. "La grammaire latine durant le haut moyen âge," in S. Auroux (ed.) *Histoire des idées linguistiques* (Liège: Mardaga, 1992) II: 83–95.

   Grammar and Grammarians in the Early Middle Ages (London: Longman, 1997).

   (ed). *History of Linguistic Thought in the Early Middle Ages* (Amsterdam: Benjamins, 1993).

   The History of Linguistics in Europe, from Plato to 1600 (Cambridge: Cambridge University Press, 2003).

Lawn, Brian. *The Prose Salernitan Questions: An Anonymous Collection Dealing with Science and Medicine Written by an Englishman c. 1200 with an Appendix of Ten Related Collections* (London: Oxford University Press for the British Academy, 1979).

   The Salernitan Questions. An Introduction to the History of Medieval and Renaissance Problem Literature (Oxford: Clarendon Press, 1963).

Lawrence, Bruce. *Ibn Khaldun and Islamic Ideology* (Leiden: Brill, 1984).

Lawrence, C. H. "The Letters of Adam Marsh and the Franciscan School at Oxford," *Journal of Ecclesiastical History* 42 (1991) 218–38.

Lazzarini, Andrea. "Gratianus de Urbeveteri," *Studia Gratiana* 4 (1956) 1–15.

Lea, Henry. *A History of Auricular Confession and Indulgences in the Latin Church* (London: Swan Sonnenschein, 1896).

Leaman, Oliver. *Averroes and his Philosophy* (Oxford: Clarendon Press, 1988).

(ed.). *The Biographical Encyclopaedia of Islamic Philosophy* (London: Thoemmes, 2006).

"Ibn Bājja on Society and Philosophy," *Islam* 57 (1980) 109–19.

Moses Maimonides (London: Routledge, 1997).

Le Bras, Gabriel and Jean Gaudemet. *Histoire du droit et des institutions de l'Eglise en Occident* (Paris: Cujas, 1955–8).

Lechner, Joseph. "Die Quästionen des Sentenzkommentars des Joh. v. Rodington O.F.M.," *Franziskanische Studien* 22 (1935) 232–48.

Leclercq, Jean. "*Ad ipsam sophiam Christum*: das monastische Zeugnis Abaelards," in F. Hoffmann et al. (eds.) *Sapienter ordinare: Festgabe für Erich Kleineidam* (Leipzig: Benno, 1969) 179–98.

"'Ad ipsam sophiam Christum': le témoignage monastique d'Abélard," *Revue d'ascétique et de mystique* 46 (1970) 161–81.

L'amour des lettres et le désir de Dieu: initiation aux auteurs monastiques du moyen âge (Paris: Cerf, 1957).

Jean de Paris et l'écclésiologie du XIIIᵉ siècle (Paris: Vrin, 1942).

"Lettres d'Odon d'Ourscamp, cardinal cistercien," *Studia Anselmiana* 37 (1955) 145–57.

Monks and Love in Twelfth-Century France: Psycho-Historical Essays (Oxford: Clarendon Press, 1979).

"Pour l'histoire de l'expression 'philosophie chrétienne'," *Mélanges de sciences religieuses* 9 (1952) 221–6.

Saint Pierre Damien, ermite et homme d'eglise (Rome: Edizioni di Storia e Letteratura, 1960).

Ledoux, Athanasius. "De gratia creata et increata juxta Quaestiones ineditam Guillelmi de Ware," *Antonianum* 5 (1930) 148–56.

Lefebvre, Charles. "'Aequitas canonica' et 'periculum animae' dans la doctrine de l'Hostiensis," *Ephemerides Iuris Canonici* 8 (1952) 305–21.

"Épikie," in R. Naz (ed.) *Dictionnaire du droit canonique* (Paris: Letouzey et Ané, 1935–65) V: 364–75.

Les pouvoirs du juge en droit canonique (Paris: Sirey, 1938).

Lefévre, Georges. *De Anselmo Laudunensi Scholastico (1050–1117)* (Evreux: Hérissey, 1895).

Leff, Gordon. *Bradwardine and the Pelagians: A Study of His 'De Causa Dei' and its Opponents* (Cambridge: Cambridge University Press, 1957).

Gregory of Rimini: Tradition and Innovation in Fourteenth Century Thought (New York: Manchester, 1961).

Medieval Thought St Augustine to Ockham (Baltimore, MD: Penguin Books, 1958).

Richard Fitzralph, commentator of the Sentences: A Study in Theological Orthodoxy (Manchester: Manchester University Press, 1963).

Leicht, Irene. *Marguerite Porete: eine fromme Intellektuelle und die Inquisition* (Freiburg: Herder, 1999).

Leinkauf, Thomas. *Nicolaus Cusanus: eine Einführung* (Münster: Aschendorff, 2006).

Leinkauf, Thomas and Carlos Steel (eds.). *Platons Timaios als Grundtext der Kosmologie in Spätantike, Mittelalter und Renaissance* (Leuven: Leuven University Press, 2005).

Lemay, Richard J. *Abu Ma'shar and Latin Aristotelianism in the Twelfth Century: The Recovery of Aristotle's Natural Philosophy through Arabic Astrology* (Beirut: American University of Beirut, Publications of the Faculty of Arts and Sciences, 1962).

Lemerle, Paul. *Le premier humanisme byzantin* (Paris: Presses universitaires de France, 1971).

Leonardi, Claudio. "Intellectual Life," in T. Reuter (ed.) *The New Cambridge Medieval History*, vol. III: *c.900–c.1024* (Cambridge: Cambridge University Press, 1999) 186–211.

Lepsius, Susanne. *Der Richter und die Zeugen: eine Untersuchung anhand des Tractatus testimoniorum des Bartolus von Sassoferrato* (Frankfurt: Klostermann, 2003).

Lerner, Ralph (ed.). *Maimonides. Empire of Light: Popular Enlightenment in an Age of Belief* (Chicago: University of Chicago Press, 2000).

"Natural Law in Albo's *Book of Roots*," in J. Cropsey (ed.) *Ancients and Moderns: Essays on the Tradition of Political Philosophy in Honor of Leo Strauss* (New York: Basic Books, 1964) 132–47.

The Heresy of the Free Spirit in the Later Middle Ages (Berkeley: University of California Press, 1972).

Lescoe, Francis. *God as First Principle in Ulrich of Strasbourg* (New York: Alba House, 1979).

Lesne, Émile. *Histoire de la propriété ecclésiastique en France*, vol. V: *Les écoles de la fin du VIIIe siècle à la fin du XIIe* (Lille: Facultés catholiques, 1940).

Lettinck, Paul. *Aristotle's Meteorology and its Reception in the Arab World, with an Edition and Translation of Ibn Suwār's Treatise on Meteorological Phenomena and of Ibn Bajja's Commentary on the Meteorology* (Leiden: Brill, 1999).

Aristotle's Physics and its Reception in the Arabic World with an Edition of the Unpublished Parts of Ibn Bajja's Commentary on the Physics (Leiden: Brill, 1994).

Levenson, Jonathan. *Resurrection and the Restoration of Israel: The Ultimate Victory of the God of Life* (New Haven, CT: Yale University Press, 2006).

Levy, Ian C. *A Companion to John Wyclif: Late Medieval Theologian* (Leiden: Brill, 2006).

John Wyclif: Scriptural Logic, Real Presence, and the Parameters Of Orthodoxy (Milwaukee, WI: Marquette University Press, 2003).

Levy, Raphael. *The Astrological Works of Abraham Ibn Ezra* (Baltimore, MD: Johns Hopkins University Press, 1927).

Lewin, Bernhard. "L'ideal antique du philosophe dans la tradition arabe: un traité d'éthique du philosophe Baghdadien Ibn Suwar," *Lychnos 1954–55* (1955) 267–84.

"La notion de *muḥdath* dans le kalām et dans la philosophie: un petit traité du philosophe chrétien Ibn Suwar," *Orientalia Suecana* 3 (1954) 84–93.

Lewis, Bernard. *The Political Languages of Islam* (Chicago: University of Chicago Press, 1988).

Lewis, C. I. and C. H. Langford. *Symbolic Logic* (New York: The Century Co., 1932).

Lewis, Ewart. "The 'Positivism' of Marsilius of Padua," *Speculum* 38 (1963) 541–82.

Lewis, Neil. "The First Recension of Robert Grosseteste's *De libero arbitrio*," *Mediaeval Studies* 53 (1991) 1–88.

"Time and Modality in Robert Grosseteste" (Ph.D. dissertation: University of Pittsburgh, 1988).

"William of Auvergne's Account of the Enuntiable: Its Relations to Nominalism and the Doctrine of the Eternal Truths," *Vivarium* 33 (1995) 113–36.

Lewry, P. Osmund. "Grammar, Logic and Rhetoric 1220–1320," in J. Catto (ed.) *The History of the University of Oxford*, vol. I: *The Early Oxford Schools* (Oxford: Clarendon Press, 1984) 401–33.

"The *Liber sex principiorum*, a Supposedly Porretanean Work: A Study in Ascription," in J. Jolivet and A. de Libera (eds.) *Gilbert de Poitiers et ses contemporains* (Naples: Bibliopolis, 1987) 251–78.

"Robert Kilwardby's Writings on the *Logica Vetus* Studied with Regard to their Teaching and Method" (D. Phil. thesis: Oxford University, 1978).

"Robertus Angelicus and the Italian Kilwardby," in A. Maierù (ed.) *English Logic in Italy in the 14th and 15th Centuries* (Naples: Bibliopolis, 1983) 33–51.

"Two Continuators of Aquinas: Robertus de Vulgarbia and Thomas Sutton," *Mediaeval Studies* 43 (1981) 58–130.

Lewy, H., *et al.* (trs.). *Three Jewish Philosophers* (New York: Atheneum, 1985).

Liebeschütz, Hans. "The Debate on Philosophical Learning during the Transition Period (900–1080)," in A. H. Armstrong (ed.) *The Cambridge History of Later Greek and Early Medieval Philosophy* (Cambridge: Cambridge University Press, 1970) 587–610.

Medieval Humanism in the Writings of John of Salisbury (London: Warburg Institute of the University of London, 1950).

Lindberg, David C. "Alhazen's Theory of Vision and its Reception in the West," *Isis* 58 (1967) 321–41.

"Alkindi's Critique of Euclid's Theory of Vision," *Isis* 62 (1971) 469–89.

(ed. and tr.). *John Pecham and the Science of Optics* (Madison: University of Wisconsin, 1970).

"Lines of Influence in Thirteenth-Century Optics: Bacon, Witelo, and Pecham," *Speculum* 46 (1971) 66–83.

"The 'Perspectiva Communis' of John Pecham: Its Influence, Sources and Content," *Archives internationales d'histoire des sciences* 18 (1965) 37–53.

Roger Bacon and the Origins of Perspectiva *in the Middle Ages* (Oxford: Clarendon Press, 1996).

Theories of Vision from Al-Kindi to Kepler (Chicago: University of Chicago Press, 1976).

Lindner, Benedikt. *Die Erkenntnislehre des Thomas von Strassburg* (Münster: Aschendorff, 1930).

Liotta, Filippo and Roberto Tofanini (eds.). *Miscellanea, Rolando Bandinelli, Papa Alessandro III* (Siena: Accademia senese degli intronati, 1986).

Little, A. G. "The Franciscan School at Oxford in the Thirteenth Century," *Archivum Franciscanum Historicum* 19 (1926) 803–74.

Roger Bacon Essays (Oxford: Clarendon Press, 1914).

Little, A. G. and Franz Pelster. *Oxford Theology and Theologians, c.A.D. 1282–1302* (Oxford: Clarendon Press, 1934).

Little, Lester. *Religious Poverty and the Profit Economy in the High Middle Ages* (Ithaca, NY: Cornell University Press, 1978).

"Les techniques de la confession et la confession comme technique," in *Faire croire: modalités de la diffusion et de la réception des messages religieux du XIIe au XVe siècle* (Rome: École française de Rome, 1981) 87–99.

Livanos, Christopher. *Greek Tradition and Latin Influence in the Work of George Scholarios: Alone against All of Europe* (Piscataway, NJ: Gorgias Press, 2006).

Livesey, Steven. "Robert Graystanes O.S.B. on the Subalternation of Sciences," *Recherches de théologie ancienne et médiévale* 61(1994) 236–72.

Theology and Science in the Fourteenth Century: Three Questions on the Unity and Subalternation of the Sciences from John of Reading's Commentary on the "Sentences" (Leiden: Brill, 1989).

Lloyd, A. C. *The Anatomy of Neoplatonism* (Oxford: Oxford University Press, 1990).

"The Aristotelianism of Eustratios of Nicaea," in J. Wiesner (ed.) *Aristoteles: Werk und Wirkung II* (Berlin: De Gruyter, 1987) 341–51.

"Neoplatonic Logic and Aristotelian Logic," *Phronesis* 1 (1955–6) 58–72, 146–60.

Lobel, Diana. " 'Silence is Praise to You': Maimonides on Negative Theology, Looseness of Expression, and Religious Experience," *American Catholic Philosophical Quarterly* 76 (2002) 25–49.

Lo Cascio, Renzo. "La predica del predicare di San Bernardino," in F. d'Episcopo (ed.) *San Bernardino da Siena Predicatore e Pellegrino* (Galatinna: Congedo, 1985) 63–73.

Lochrie, Karma. *Margery Kempe and Translations of the Flesh* (Philadelphia: University of Pennsylvania Press, 1991)

Loewe, Raphael. *Ibn Gabirol* (New York: Grove Weidenfeld, 1989).

Lohr, Charles H. *Latin Aristotle Commentaries, V: Bibliography of Secondary Literature* (Florence: SISMEL, Edizioni del Galluzzo, 2005).

    "Medieval Latin Aristotle Commentaries," *Traditio* 23 (1967) 314–413; 24 (1968) 194–245; 26 (1970) 135–216; 27 (1971) 251–351; 28 (1972) 281–396; 29 (1973) 93–197; 30 (1974) 119–44

Long, A. A. and D. N. Sedley (tr.). *The Hellenistic Philosophers* (Cambridge: Cambridge University Press, 1987).

Long, R. James. "The First Oxford Debate on the Eternity of the World," *Recherches de théologie et philosophie médiévales* 65 (1998) 54–98.

    "The Moral and Spiritual Theology of Richard Fishacre: Edition of Trinity Coll. (Cambridge) MS O.1.30," *Archivum Fratrum Praedicatorum* 60 (1990) 5–143.

    "Of Angels and Pinheads: The Contributions of the Early Oxford Masters to the Doctrine of Spiritual Matter," *Franciscan Studies* 56 (1998) 237–52.

    "Richard Fishacre's Treatise *De libero arbitrio*," in B. C. Bazán *et al.* (eds.) *Moral and Political Philosophies in the Middle Ages* (Ottawa: Legas, 1995) 879–91.

    "Richard Fishacre's Way to God," in R. Link-Salinger *et al.* (eds.) *A Straight Path: Studies in Medieval Philosophy and Culture. Essays in Honor of Arthur Hyman* (Washington, DC: Catholic University of America Press, 1988) 174–82.

    "The Science of Theology According to Richard Fishacre: Edition of the Prologue to his Commentary on the Sentences," *Mediaeval Studies* 34 (1972) 71–98.

Long, R. James and Timothy Noone. "Fishacre and Rufus on the Metaphysics of Light: Two Unedited Texts," in J. Hamesse (ed.) *Roma, magister mundi: itineraria culturae medievalis: mélanges offerts au Père L. E. Boyle à l'occasion de son 75e anniversaire* (Louvain-la-Neuve: Fédération des instituts d'études médiévales, 1998) 517–48.

Longère, Jean. "Pauvreté et richesse chez quelques prédicateurs durant la seconde moitié du XIIᵉ siècle," in M. Mollat (ed.) *Études sur l'histoire de la pauvreté* (Paris: Publications de la Sorbonne, 1974) I: 255–73.

Longeway, John. "Simon of Faversham's Questions on the 'Posterior Analytics': A Thirteenth-Century View of Science" (Ph.D. dissertation: Cornell University, 1977).

Longo, Carlo (ed.). *Magister Raimundus: atti del Convegno per il IV centenario della canonizzazione di San Raimondo de Penyafort, 1601–2001* (Rome: Istituto storico domenicano, 2002).

Longpré, Efrem. "Bartolommeo di Bologna, un maestro francescano del sec. XIII," *Studi Francescani* 9 (1923) 365–84.

    "Le commentaire sur les *Sentences* de Guillaume de Nottingham O.F.M.," *Archivum Franciscanun Historicum* 22 (1929) 232–33.

    "Fr Thomas d'York," *Archivum Franciscanum Historicum* 19 (1926) 875–930.

    "Gonsalve de Balboa et le B. Duns Scot," *Études Franciscaines* 36 (1924) 640–5; 37 (1925) 170–82.

    "Jean de Reading et le B. Jean Duns Scot," *La France Franciscaine* 7 (1924) 99–109.

    "Maîtres franciscains de Paris: Guillaume de Ware OFM," *La France Franciscaine* 5 (1922) 71–82.

    "L'œuvre scolastique du cardinal Jean de Murro, O.F.M. (†1312)," in *Mélanges Auguste Pelzer* (Leuven: Bibliothèque de l'Université, 1947) 467–92.

Lopez, Robert. *The Commercial Revolution of the Middle Ages, 950–1350* (Cambridge: Cambridge University Press, 1976).

Lorenz, Sönke. *Studium generale erfordense: zum Erfurter Schulleben im 13. und 14. Jahrhundert* (Stuttgart: Hiersemann, 1989).

"Thomas Manlefelt (Maulefelt): zu Leben und Werk," in M. Kintzinger *et al.* (eds.) *Schule und Schüler im Mittelalter: Beiträge zur europäischen Bildungsgeschichte des 9. bis 15. Jahrhunderts* (Cologne: Böhlau, 1996) 145–64.

Lot-Borodine, Myrrha. *Un maître de la spiritualité byzantine au XIVe siècle: Nicolas Cabasilas* (Paris: Éditions de l'Orante, 1958).

Loth, Bernard and Albert Michel (eds.). *Dictionnaire de théologie catholique* (Paris: Letouzey et Ané, 1953–72).

Lottin, Odon. "Un commentaire sur les Sentences attribués d'Odon Rigaud," *Recherches de théologie ancienne et médiévale* 7 (1935) 402.

    Le droit naturel chez Thomas d'Aquin et ses prédécesseurs, 2nd edn (Bruges: Beyaert, 1931).

    "Le premier commentaire connu des Sentences de Pierre Lombard," *Recherches de théologie ancienne et médiévale* 8 (1938) 64–71.

    Psychologie et morale aux XIIe et XIIIe siècles (Gembloux: Duculot, 1948–60).

    "Robert Cowton et Jean Duns Scot," *Recherches de théologie ancienne et médiévale* 21 (1954) 281–94.

    "Les vertus morales acquises sont-elles vraies vertus? La réponse de théologiens de Pierre Abélard à St. Thomas d'Aquin," *Recherches de théologie ancienne et médiéval* 20 (1953) 13–39.

    "Les vertus morales acquises sont-elles vraies vertus? La réponse de théologiens de saint Thomas d'Aquin à Pierre Auriol," *Recherches de théologie ancienne et médiévale* 21 (1954), 100–29.

Lourdaux, Willem and Daniel Verhelst (eds.). *The Concept of Heresy in the Middle Ages (11th–13th c.)* (Leuven: Louvain University Press, 1976).

Lowe, Elizabeth. *The Contested Theological Authority of Thomas Aquinas: The Controversies between Hervaeus Natalis and Durandus of St. Pourcain* (New York: Routledge, 2003).

Lucentini, Paolo. "L'eresia di Amalrico," in W. Beierwaltes (ed.) *Eriugena Redivivus* (Heidelberg: Carl Winter Universitätsverlag, 1987) 174–91.

Luhtala, Anneli. "Early Medieval Commentary on Priscian's *Institutiones Grammaticae*," *Cahiers de l'Institut du Moyen Age Grec et Latin* 71 (2000) 115–88.

    "Glosses Based on Eriugena's Priscian Commentary," *Miscellanea Bibliothecae Apostolicae Vaticanae* 7 (2000) 199–213.

    "A Priscian Commentary Attributed to Eriugena," in S. Auroux (ed.) *History of Linguistics 1999: Selected Papers from the Eighth International Conference on the History of the Language Sciences* (Amsterdam: Benjamins, 2003) 19–30.

Luna, Concetta. "Review of Rainer Thiel, Simplikios und das Ende der neuplatonischen Schule in Athen," in *Mnemosyne* 54 (2001) 482–504.

Luongo, F. Thomas. *The Saintly Politics of Catherine of Siena* (Ithaca, NY: Cornell University Press, 2006).

Luscombe, David. "Francois de Meyronnes and Hierarchy," in M. Wilks and D. Wood (eds.) *The Church and Sovereignty c.590–1918: Essays in Honour of Michael Wilks* (Oxford: Blackwell, 1991) 225–31.

    "The Hierarchies in the Writings of Alan of Lille, William of Auvergne and St Bonaventure," in I. Iribarren and M. Lenz (eds.) *Angels in Medieval Philosophical Enquiry* (Aldershot: Ashgate, 2008) 15–28.

    "Hrabanus Maurus and the Predestination Controversy," in F. J. Felten and B. Nichtweiss (eds.) *Hrabanus Maurus. Gelehrter, Abt von Fulda und Erzbischof von Mainz* (Mainz: Publikationen Bistum Mainz, 2006) 141–58.

    "John of Salisbury: A Bibliography, 1953–82," in M. Wilks (ed.) *The World of John of Salisbury* (Oxford: Blackwell, 1984) 445–57.

"The *Lex divinitatis* in the Bull *Unam Sanctam* of Pope Boniface VIII," in C. Brooke *et al.* (eds.) *Church and Government in the Middle Ages* (Cambridge: Cambridge University Press, 1976) 205–21.

Medieval Thought (Oxford: Oxford University Press, 1997).

The School of Peter Abelard: The Influence of Abelard's Thought in the Early Scholastic Period (Cambridge: Cambridge University Press, 1969).

Lynch, John E. *The Theory of Knowledge of Vital du Four* (St. Bonaventure, NY: Franciscan Institute, 1972).

Lynch, Kilianus. "De distinctione intentionali apud mag. J. Baconthorpe," *Analecta Ordinis Carmelitarum* 7 (1931) 351–404.

McAodha, Loman. "The Nature and Efficacy of Preaching According to St. Bernandine of Siena," *Franciscan Studies* 27 (1967) 221–47.

Maccagnolo, Enzo. "David of Dinant and the Beginning of Aristotelianism in Paris," in P. Dronke (ed.) *A History of Twelfth-Century Western Philosophy* (Cambridge: Cambridge University Press, 1988) 429–42.

Rerum universitas: Saggio sulla filosofia di Teodorico di Chartres (Florence: Le Monnier, 1976).

McCall, John P. "Chaucer and John of Legnano," *Speculum* 40 (1965) 484–9.

"The Writings of John of Legnano," *Traditio* 23 (1967) 415–37.

MacClintock, Stuart. *Perversity and Error: Studies on the "Averroist" John of Jandun* (Bloomington: Indiana University Press, 1956).

McCluskey, Colleen. "The Roots of Ethical Voluntarism." *Vivarium* 39 (2001) 185–208.

McCracken, George. *Early Medieval Theology* (Philadelphia, PA: Westminster, 1957).

McCready, William. "The Papal Sovereign in the Ecclesiology of Augustinus Triumphus," *Medieval Studies* 39 (1977) 117–205.

McCullough, E. J. "St. Albert on Motion as Forma Fluens and Fluxus Formae," in J. A. Weisheipl (ed.) *Albertus Magnus and the Sciences: Commemorative Essays 1980* (Toronto: Pontifical Institute of Mediaeval Studies, 1980) 129–53.

McDermott, A. C. "Materials for an Archaeological Analysis of Richard Campsall's Logic," in G. L. Bursill-Hall *et al.* (eds.) *De Ortu Grammaticae: Studies in Memory of Jan Pinborg* (Amsterdam: Benjamins, 1990) 227–37.

MacDonald, Scott (ed.). *Being and Goodness: The Concept of the Good in Metaphysics and Philosophical Theology* (Ithaca, NY: Cornell University Press, 1991).

"Goodness as Transcendental: The Early Thirteenth-Century Recovery of an Aristotelian Idea," *Topoi* 11 (1992) 173–86.

McEvoy, James. "John Scottus Eriugena and Thomas Gallus, Commentators on the Mystical Theology," in J. McEvoy and M. Dunne (eds.) *History and Eschatology in Eriugena and his Time* (Leuven: Leuven University Press, 2002) 183–202.

The Philosophy of Robert Grosseteste (Oxford: Clarendon Press, 1982).

Robert Grosseteste (Oxford: Oxford University Press, 2000).

Robert Grosseteste, Exegete and Philosopher (Aldershot: Variorum, 1994).

(ed.). *Robert Grosseteste: New Perspectives on his Thought and Scholarship* (Turnhout: Brepols, 1995).

McFarlane, K. B. *John Wycliffe and the Beginnings of English Nonconformity* (London: English Universities Press, 1952).

McGinn, Bernard. *The Calabrian Abbot: Joachim of Fiore in the History of Western Thought* (New York: Macmillan, 1985).

The Flowering of Mysticism: Men and Women in the New Mysticism (1200–1350), vol. III of *The Presence of God: A History of Western Christian Mysticism* (New York: Crossroad Publishing, 1998).

The Golden Chain: A Study in the Theological Anthropology of Isaac of Stella (Washington, DC: Cistercian Publications, 1969).

Harvest of Mysticism in Medieval Germany, vol. IV of *The Presence of God: A History of Western Christian Mysticism* (New York: Crossroad Publishing, 2005).

Meister Eckhart and the Beguine Mystics: Hadwijch of Brabant, Mechtild of Magdeburg, and Marguerite of Porete (New York: Continuum, 1994).

The Mystical Thought of Meister Eckhart: The Man from Whom God Hid Nothing (New York: Crossroad Publishing, 2001).

(tr.). *Three Treatises on Man: A Cistercian Anthropology* (Kalamazoo, MI: Cistercian Publications, 1977).

McGinn, Bernard and Willemien Otten (eds.). *Eriugena: East and West* (Notre Dame, IN: University of Notre Dame Press, 1994).

McGinnis, Jon. "Positioning Heaven: The Infidelity of a Faithful Aristotelian," *Phronesis* 51 (2006) 140–61.

"Scientific Methodologies in Medieval Islam," *Journal of the History of Philosophy* 41 (2003) 307–27.

McGinnis, Jon and David C. Reisman (trs.). *Classical Arabic Philosophy: An Anthology of Sources* (Indianapolis, IN: Hackett, 2007).

McGrade, A. S. (ed.). *The Cambridge Companion to Medieval Philosophy* (Cambridge: Cambridge University Press, 2003).

"Enjoyment at Oxford after Ockham: Philosophy, Psychology and the Love of God," in A. Hudson and M. Wilks (eds.) *From Ockham to Wyclif* (Oxford: Blackwell, 1987) 63–88.

The Political Thought of William of Ockham: Personal and Institutional Principles (Cambridge: Cambridge University Press, 1974; repr. 2002).

"William of Ockham and Augustinus de Ancona on the Righteousness of Dissent," *Franciscan Studies* 54 (1994–7) 143–65.

McGrade, A. S., John Kilcullen, and Matthew Kempshall (trs.). *Cambridge Translations of Medieval Philosophical Texts*, vol. II: *Ethics and Political Philosophy* (Cambridge: Cambridge University Press, 2001).

McGrath, Alister. *Iustitia Dei: A History of the Christian Doctrine of Justification*, 3rd edn (Cambridge: Cambridge University Press, 1998).

McGuire, Brian Patrick (ed.). *A Companion to Jean Gerson* (Leiden: Brill, 2006).

The Difficult Saint: Bernard of Clairvaux and his Tradition (Kalamazoo, MI: Cistercian Publications, 1991).

Jean Gerson and the Last Medieval Reformation (University Park, PA: Pennsylvania State University Press, 2005).

McInerney, Maud Burnett (ed.). *Hildegard of Bingen: A Book of Essays* (New York: Garland, 1998).

McInerny, Ralph. *Aquinas against the Averroists: On There Being Only One Intellect* (West Lafayette, IN: Purdue University Press, 1993).

Aquinas and Analogy (Washington, DC: Catholic University of America Press, 1998).

Boethius and Aquinas (Washington, DC: Catholic University of America Press, 1990).

McKay, Angela. "The Infused and Acquired Virtues in Aquinas' Moral Philosophy" (Ph.D. dissertation: University of Notre Dame, 2004).

McKeon, Richard. *Selections from Medieval Philosophers* (New York: Scribners, 1930).

Mackie, Evelyn A. and Joseph Goering (eds.). *Editing Robert Grosseteste* (Toronto: University of Toronto Press, 2003).

Mackie, J. L. "Evil and Omnipotence," *Mind* 64 (1955) 200–12.

McMahon, William. "Radulphus Brito on the Sufficiency of the Categories," *Cahiers de l'Institut du Moyen Age Grec et Latin* 39 (1981) 81–96.

MacMullen, Ramsay. *Christianity and Paganism in the Fourth to Eighth Centuries* (New Haven, CT: Yale University Press, 1997).

   Voting about God in Early Church Councils (New Haven, CT: Yale University Press, 2006).

McNeill, John. "Medicine for Sin as Prescribed in the Penitentials," *Church History* 1 (1932) 14–26.

Macrae, Enya. "Geoffrey of Aspall's Commentaries on Aristotle," *Mediaeval and Renaissance Studies* 6 (1968) 94–134.

Maddocks, Fiona. *Hildegard of Bingen: The Woman of her Age* (New York: Doubleday, 2001).

Madec, Goulven. *Jean Scot et ses auteurs: annotations érigéniennes* (Paris: Études Augustiniennes, 1988).

Madelung, Wilferd. "Abu'l Muʿīn al-Nasafī and Ashʿarī Theology," in C. Hillenbrand (ed.) *Studies in Honour of C.E. Bosworth* (Leiden: Brill, 2000) II: 318–30.

   "Nasir al-Din Tusi's Ethics Between Philosophy, Shiʿism, and Sufism," in R. G. Hovannisian (ed.) *Ethics in Islam* (Malibu, CA: Undena, 1985) 85–101.

   "The Origins of the Controversy Concerning the Creation of the Koran," in J. M. Barral (ed.) *Orientalia hispanica sive studia F.M. Pareja octogenario dicata* (Leiden: Brill, 1974) 504–25.

Madigan, Kevin. *Olivi and the Interpretation of Matthew in the High Middle Ages* (Notre Dame, IN: University of Notre Dame Press, 2003).

Mahdi, Muhsin. *Alfarabi and the Foundation of Islamic Political Philosophy* (Chicago: University of Chicago Press, 2001).

   Ibn Khaldun's Philosophy of History (London: Allen and Unwin, 1957).

   "Language and Logic in Classical Islam," in G. E. von Grunebaum (ed.) *Logic in Classical Islamic Culture* (Wiesbaden: Harrassowitz, 1970) 51–83.

Mahoney, E. P. "Themes and Problems in the Psychology of John of Jandun," in J. F. Wippel (ed.) *Studies in Medieval Philosophy* (Washington, DC: Catholic University of America, 1987) 273–88.

   "Themistius and the Agent Intellect in James of Viterbo and Other Thirteenth-Century Philosophers," *Augustiniana* 23 (1973) 422–67.

Maier, Anneliese. *An der Grenze von Scholastik und Naturwissenschaft*, 2nd edn (Rome: Edizioni di Storia e Letteratura, 1952).

   Metaphysische Hintergründe der Spätscholastischen Naturphilosophie (Rome: Edizioni di Storia e Letteratura, 1955).

   "Das Problem der Evidenz in der Philosophie des 14. Jahrhunderts," in A. Maier (ed.) *Ausgehendes Mittelalter: Gesammelte Aufsätze zur Geistesgeschichte des 14. Jahrhunderts* (Rome: Edizioni di Storia e Letteratura, 1967) II: 367–418.

   "Wilhelm von Alnwicks Bologneser Quaestiones gegen den Averroismus (1323)," *Gregorianum* 30 (1949) 265–308.

   Zwei Grundprobleme der Scholastischen Naturphilosophie, 3rd edn (Rome: Edizioni di Storia e Letteratura, 1968).

   Zwischen Philosophie und Mechanik (Rome: Edizioni di Storia e Letteratura, 1958).

Maierù, Alfonso (ed.) *English Logic in Italy in the 14th and 15th Centuries* (Naples: Bibliopolis, 1982).

   "La linguistica medievale: filosofia del linguaggio," in G. Lepschy (ed.) *Storia della linguistica* (Bologna: Mulino, 1990) II: 101–37.

"Logica aristotelica e teologia trinitaria, Enrico Totting da Oyta," in A. Mairù and A. Paravicini Bagliani (eds.) *Studi sul XIV secolo in memoria di Anneliese Maier* (Rome: Edizioni di Storia e Letteratura, 1981) 496–512.

"Logica e teologia trinitaria nel commento alle sentenze attribuito a Petrus Thomae," in J. Jolivet *et al.* (eds.) *Lectionum varietates: hommage à Paul Vignaux, 1904–1987* (Paris: Vrin, 1991) 177–98.

"Il problema del significato nella logica di Pietro da Mantova," *Miscellanea Mediaevalia* 9 (1974) 155–70.

"The Sophism 'Omnis propositio est vera vel falsa' by Henry Hopton (Pseudo-Heytesbury's *De veritate et falsitate propositionis*," in S. Read (ed.) *Sophisms in Medieval Logic and Grammar: Acts of the Ninth European Symposium for Medieval Logic and Semantics* (Dordrecht: Kluwer, 1993) 103–15.

Maioli, Bruno. *Gilberto Porretano: dalla grammatica speculativa alla metafisica del concreto* (Rome: Bulzoni Editore, 1979).

Mäkinen, Virpi. "The Franciscan Background of Early Modern Rights Discussion: Rights of Property and Subsistence," in J. Kraye and R. Saarinen (eds.) *Moral Philosophy on the Threshold of Modernity* (Dordrecht: Kluwer, 2005) 165–80.

"Godfrey of Fontaine's Criticism Concerning Franciscan Poverty and the Birth of Individual Natural Rights," *Picenum seraphicum* 19 (2000): 69–85.

"The Rights of the Poor: An Argument against the Franciscans," in M. Korpiola (ed.) *Nordic Perspectives on Medieval Canon Law* (Helsinki: Matthias Calonius Society, 1999) 41–9.

Malcolm, John. "A Reconsideration of the Identity and Inherence Theories of the Copula," *Journal of the History of Philosophy* 17 (1979) 383–400.

Mallard, William. "John Wyclif and the Tradition of Biblical Authority," *Church History* 30 (1961) 50–60.

Malter, Henry. *Saadia Gaon, his Life and Works* (Philadelphia: Jewish Publication Society of America, 1921; repr. New York: Hermon Press, 1969).

Manekin, Charles. "Conservative Tendencies in Gersonides' Religious Philosophy," in D. H. Frank and O. Leaman (eds.) *The Cambridge Companion to Medieval Jewish Philosophy* (Cambridge: Cambridge University Press, 2003) 304–42.

(tr.). *Medieval Jewish Philosophical Writings* (Cambridge: Cambridge University Press, 2007).

Mann, William E. "The Best of All Possible Worlds," in S. MacDonald (ed.) *Being and Goodness: The Concept of the Good in Metaphysics and Philosophical Theology* (Ithaca, NY: Cornell University Press, 1991) 250–77.

"Divine Simplicity," *Religious Studies* 18 (1982) 451–71.

"Ethics," in J. Brower and K. Guilfoy (eds.) *The Cambridge Companion to Abelard* (Cambridge: Cambridge University Press, 2004) 279–304.

"Inner-Life Ethics," in G. B. Matthews (ed.) *The Augustinian Tradition* (Berkeley: University of California Press, 1998) 140–65.

Mannath, Joseph T. "Harvey of Nedellec's Proofs for the Existence of God: 'De cognicione primi principii, qq. III–IV'," *Salesianum* 31 (1969) 46–112.

Mantienne, Alain. *Lanfranc: le fidèle conseiller de Guillaume le Conquérant* (Condé-sur-Noireau: Corlet, 2006).

Maranesi, Pietro. "Il IV libro della *Summa Quaestionum* di Pietro di Giovanni Olivi. Un'ipotesi di soluzione," *Archivum Franciscanum Historicum* 95 (2002) 53–92.

Marcolino, Vénicio. "Leben und Schrifftum des Augustinereremiten Johannes von Basel (†1392)," *Augustiniana* 53 (2003) 319–81.

Marcotte, Roxanne D. "Preliminary Notes on the Life and Work of Abū al-ʿAbbās al-Lawkarī (d. *ca.* 517/1123)," *Anaquel de Estudios Árabes* 17 (2006) 133–57.

Marenbon, John. "Alcuin, the Council of Frankfurt and the Beginnings of Medieval Philosophy," in R. Berndt (ed.) *Das Frankfurter Konzil von 794: Kristallisationspunkt karolingischer Kultur* (Mainz: Selbstverlag der Gesellschaft für Mittelrheinische Kirchengeschichte, 1997) II: 603–15.

  "Anselm Rewrites his Argument: *Proslogion* 2 and the *Response* to Gaunilo," in J. Hamesse and O. Weijers (eds.) *Écriture et réécriture des textes philosophiques médiévaux* (Turnhout: Brepols, 2006) 347–65.

  Aristotelian Logic, Platonism and the Context of Early Medieval Philosophy in the West (Aldershot: Ashgate, 2000).

  Boethius (Oxford: Oxford University Press, 2003).

  (ed.). *The Cambridge Companion to Boethius* (Cambridge: Cambridge University Press, 2009).

  "Carolingian Thought," in R. McKitterick (ed.) *Carolingian Culture: Emulation and Innovation* (Cambridge: Cambridge University Press, 1984) 171–92.

  "Les Catégories au début du moyen âge," in O. Bruun and L. Corti (eds.) *Les* Catégories *et leur histoire* (Paris: Vrin, 2005) 223–43.

  From the Circle of Alcuin to the School of Auxerre: Logic, Theology and Philosophy in the Early Middle Ages (Cambridge: Cambridge University Press, 1981).

  "Gilbert of Poitiers," in P. Dronke (ed.) *A History of Twelfth-Century Western Philosophy* (Cambridge: Cambridge University Press, 1988) 328–52.

  "Glosses and Commentaries on the *Categories* and *De interpretatione* before Abelard," in J. Fried (ed.) *Dialektik und Rhetorik im früheren und hohen Mittelalter*, Schriften des historischen Kollegs, Kolloquien 27 (Munich: Historisches Kolleg, 1997) 21–49.

  "John Scottus and Carolingian Theology: from the *De praedestinatione*, its Background and its Critics, to the *Periphyseon*," in M. T. Gibson and J. L. Nelson (eds.) *Charles the Bald: Court and Kingdom*, 2nd edn (Aldershot: Variorum, 1990) 303–25.

  Later Medieval Philosophy (1150–1350): An Introduction (London: Routledge, 1987).

  "The Latin Tradition of Logic to 1100," in D. M. Gabbay and J. Woods (eds.) *Handbook to the History of Logic*, vol. II: *Medieval and Renaissance Logic* (Amsterdam: North-Holland, 2008) 1–63.

  "Medieval Latin Commentaries and Glosses on Aristotelian Logical Texts, Before c. 1150 A.D.," in C. Burnett (ed.) *Glosses and Commentaries on Aristotelian Logical Texts: The Syriac, Arabic and Medieval Latin Traditions* (London: Warburg Institute, 1993) 77–127.

  "A Note on the Porretani," in P. Dronke (ed.) *A History of Twelfth-Century Western Philosophy* (Cambridge: Cambridge University Press, 1988) 353–7.

  The Philosophy of Peter Abelard (Cambridge: Cambridge University Press, 1997).

  Le temps, la prescience et les futurs contingents de Boèce à Thomas d'Aquin (Paris: Vrin, 2005).

Margoliouth, D. S. "The Discussion Between Abu Bishr Matta and Abu Saʿid al-Sirafi on the Merits of Logic and Grammar," *Journal of the Royal Asiatic Society* (1905) 79–129.

Markowski, Mieczyslaw. "Komentarz Jana Aurifabera z Erfurtu do Fizyki Arystotelesa (Johannes Aurifabers von Erfurt Kommentar zur Physik des Aristoteles in der Handschrift 1423 der Universitätsbibliothek in Leipzig)," *Acta mediaevalia* 12 (1999) 335–43.

Markus, Robert A. "Saint Augustine's Views on the 'Just War'," in W. J. Sheils (ed.) *The Church and War* (Oxford: Blackwell, 1983) 1–13.

Marmo, Costantino. "Hoc autem etsi potest tollerari . . . Egidio Romano e Tommaso d'Aquino sulle passione dell' anima," *Documenti e studi sulla tradizione filosofica medievale* 2 (1991) 281–315.

"A Pragmatic Approach to Language in Modism," in S. Ebbesen (ed.) *Sprachtheorien in Spätantike und Mittelalter* (Tübingen: Narr, 1995) 169–83.

"Retorica e motti di spirito. Una 'quaestio' inedita di Giovanni di Jandun," in P. Magli, G. Manetti, and P. Violi (eds.) *Semiotica: storia, teoria, interpretazione* (Milan: Bompiani, 1992) 23–41.

"The Semantics of the Modistae," in S. Ebbesen and R. L. Friedman (eds.) *Medieval Analyses in Language and Cognition* (Copenhagen: Royal Danish Academy of Sciences and Letters, 1999) 83–104.

La semiotica e linguaggio nella Scolastica: Parigi, Bologna, Erfurt 1270–1330 (Rome: Istituto Storico Italiano per il Medioevo, 1994).

Marmura, Michael E. "Al-Ghazali," in P. Adamson and R. Taylor (eds.) *The Cambridge Companion to Arabic Philosophy* (Cambridge: Cambridge University Press, 2005) 137–54.

"Avicenna on Causal Priority," in P. Morewedge (ed.) *Islamic Philosophy and Mysticism* (Delmar: Caravan Books, 1981) 65–83.

"Avicenna's Chapter on Universals in the Isagoge of his Shifāʾ," in A. T. Welch and P. Cachia (eds.) *Islam: Past Influence and Present Challenge* (Edinburgh: Edinburgh University Press, 1979) 34–56.

"Avicenna's 'Flying Man' in Context," *The Monist* 69 (1986) 383–95.

"Ghazalian Causes and Intermediaries," *Journal of the American Oriental Society* 115 (1995) 89–100.

"The Metaphysics of Efficient Causality in Avicenna (Ibn Sina)," in M. Marmura (ed.) *Islamic Theology and Philosophy* (Albany: State University of New York Press, 1984) 172–87.

Marmura, Michael and John M. Rist. "Al-Kindi's Discussion of Divine Existence and Oneness," *Mediaeval Studies* 25 (1963) 338–52.

Marmursztejn, Elsa. *L'autorité des maîtres: scolastique, normes et société au xiiᵉ siècle* (Paris: Les Belles Lettres, 2007).

Maróth, Miklós. *The Correspondence between Aristotle and Alexander the Great: An Anonymous Greek Novel in Letters in Arabic Translation* (Piliscsaba: Avicenna Közel-Kelet Kutatások Intézete, 2006).

Marrone, Steven P. *The Light of Thy Countenance: Science and Knowledge of God in the Thirteenth Century* (Leiden: Brill, 2001).

"Matthew of Aquasparta, Henry of Ghent and Augustinian Epistemology after Bonaventure," *Franziskanische Studien* 65 (1983) 252–90.

Truth and Scientific Knowledge in the Thought of Henry of Ghent (Cambridge, MA: Medieval Academy, 1985).

William of Auvergne and Robert Grosseteste: New Ideas of Truth in the Early Thirteenth Century (Princeton, NJ: Princeton University Press, 1983).

Marrou, Henri I. *Saint Augustin et la fin de la culture antique* (Paris: Boccard, 1938–49).

Marshall, Peter. "Parisian Psychology in the Mid-Fourteenth Century," *Archives d'histoire doctrinale et littéraire du moyen âge* 50 (1983) 101–93.

Martel, Benoît. *La psychologie de Gonsalve d'Espagne* (Paris: Vrin, 1968).

Martin, Christopher J. "Abaelard on Modality: Some Possibilities and Some Puzzles," in T. Buchheim, C. H. Kneepkens, and K. Lorenz (eds.) *Potentialität und Possibilität Modalaussagen in der Geschichte der Metaphysik* (Stuttgart-Bad Cannstatt: Frommann-Holzboog 2001).

"Embarrassing Arguments and Surprising Conclusions in the Development of Theories of the Conditional in the Twelfth Century," in J. Jolivet and A. de Libera (eds.) *Gilbert de Poitiers et ses contemporains: aux origines de la logica modernorum* (Naples: Bibliopolis, 1987) 377–401.

"Formal Consequence in Scotus and Ockham: Towards an Account of Scotus' Logic," in O. Boulnois *et al.* (eds.) *Duns Scot à Paris 1302–2002* (Turnout: Brepols, 2005) 117–50.

"Logic," in J. Brower and K. Guilfoy (eds.) *The Cambridge Companion to Abelard* (Cambridge: Cambridge University Press, 2004) 158–99.

"The Logic of Negation in Boethius," *Phronesis* 36 (1991) 277–304.

"The Logic of the Nominales, or, The Rise and Fall of Impossible Positio," *Vivarium* 30 (1987) 110–26.

"Obligations and Liars," in M. Yrjönsuuri (ed.) *Medieval Formal Logic: Consequences, Obligations, Insolubles* (Dordrecht: Reidel, 2001) 63–94.

"Self-Knowledge and Cognitive Ascent: Thomas Aquinas and Peter Olivi on the *KK-Thesis*," in H. Lagerlund (ed.) *Forming the Mind: Essays on the Internal Senses and the Mind/Body Problem from Avicenna to the Medical Enlightenment* (Dordrecht: Springer, 2007) 93–108.

"Something Amazing About the Peripatetic of Pallet: Abelard's Development of Boethius' Account of Conditional Propositions," *Argumentation* 1 (1987) 420–36.

"William's Machine," *Journal of Philosophy* 83 (1986) 564–72.

Martin, C. F. J. "On a Mistake Commonly Made in Accounts of Sixteenth-Century Discussions of the Immortality of the Soul," *American Catholic Philosophical Quarterly* 69 (1995) 29–37.

Martin, John H. "The Eucharistic Treatise of John Quidort of Paris," *Viator* 6 (1975) 214–40.

"Inventing Sincerity, Refashioning Prudence: The Discovery of the Individual in Renaissance Europe," *American Historical Review* 102 (1997) 1309–42.

Mas i Solench, Josep Maria. *Ramon de Penyafort* (Barcelona: Rafael Dalmau, 2000).

Masai, François. *Pléthon et le platonisme de Mistra* (Paris: Les Belles Lettres, 1956).

Matteo d'Acquasparta: Francescano, filosofo, politico. Atti del xxix convegno storico internationale (Spoleto: Centro italiano di studi sull'alto medioevo, 1993).

Matthaes, Curt. *Der Salernitaner Arzt Urso aus der 2. Hålfte des 12. Jahrhunderts und seine beiden Schriften "De effectibus qualitatum" und "De effectibus medicinarum"* (Leipzig: Noske, 1918).

Matthew, H. C. G. and Brian Harrison. *Oxford Dictionary of National Biography*, rev. edn (Oxford: Oxford University Press, 2004).

Matthews, Gareth B. *Augustine* (Oxford: Blackwell, 2005).

(ed.). *The Augustinian Tradition* (Berkeley: University of California Press, 1998).

Thought's Ego in Augustine and Descartes (Ithaca, NY: Cornell University Press, 1992).

Maurer, Armand. "The *De quidditatibus entium* of Dietrich of Freiberg and its Criticism of Thomistic Metaphysics," *Mediaeval Studies* 18 (1956) 173–203.

"Francis of Meyronnes' Defense of Epistemological Realism," in *Studia Mediaevalia et Mariologica in Honour of P. Carolo Balić* (Rome: Pontificium Athenaeum "Antonianum", 1971) 203–25; repr. in A. Maurer, *Being and Knowing* (Toronto: Pontifical Institute of Medieval Studies, 1990) 311–31.

"Henry of Harclay's Question on the Univocity of Being," *Mediaeval Studies* 16 (1954) 1–18.

"John of Jandun and the Divine Causality," *Mediaeval Studies* 17 (1955) 185–207; repr. in *Being and Knowing* (Toronto: Pontifical Institute of Mediaeval Studies, 1990) 275–308.

"Ockham's Razor and Chatton's Anti-Razor," *Mediaeval Studies* 46 (1984) 463–75.

The Philosophy of William of Ockham in the Light of its Principles (Toronto: Pontifical Institute of Mediaeval Studies, 1999).

"The Role of Infinity in the Thought of Francis of Meyronnes," *Mediaeval Studies* 33 (1971) 201–27; repr. in *Being and Knowing* (Toronto: Pontifical Institute of Medieval Studies, 1990) 333–59.

"St. Thomas and Eternal Truths," in *Being and Knowing: Studies in St. Thomas and Later Medieval Philosophers* (Toronto: Pontifical Institute of Medieval Studies, 1990) 43–58.

"St. Thomas and Historicity," in *Being and Knowing: Studies in St. Thomas and Later Medieval Philosophers* (Toronto: Pontifical Institute of Medieval Studies, 1990) 95–116.

Mauro, V. "La disputata *de anima* tra Vitale du Four e Pietro di Giovanni Olivi," *Studi Medievali* 38 (1997) 89–139.

May, Gerhard. *Schöpfung aus dem Nichts: Die Entstehung der Lehre von der Creatio ex nihilo* (Berlin: De Gruyter, 1978).

Mazzarella, Pasquale. *La dottrina dell'anima e della conoscenza in Matteo d'Acquasparta* (Padua: Gregoriana, 1969).

Meersseman, Gilles-Gérard. "Antonius de Carlenis O.P., Erzbischof von Amalfi," *Archivum Fratrum Praedicatorum* 3 (1933) 81–131.

Geschichte des Albertismus (Paris: Haloua, 1933–5).

"Les origines parisiennes de l'Albertisme Colonais," *Archives d'histoire doctrinale et littéraire du moyen âge* 7 (1932) 121–42.

Meier, H. C. *Macht und Wahnwitz der Begriffe: der Ketzer Roscellinus* (Aalen: Spieth, 1974).

Meier, L. "Wilhelm von Nottingham (†1336) ein Zeuge für die Entwicklung der *distinctio formalis* an der Universität Oxford," in F. J. von Rintelen (ed.) *Philosophia Perennis: Abhandlungen zu ihrer Vergangenheit und Gegenwart* (Regensburg: Habbel, 1930) 247–67.

Melamed, Abraham. *The Philosopher King in Medieval and Renaissance Jewish Philosophical Thought* (Albany: State University of New York Press, 2003).

Melchert, Christopher. *Ahmad ibn Hanbal* (Oxford: Oneworld, 2006).

Meller, Bernhard. *Studien zur Erkenntnislehre des Peter von Ailly* (Freiburg: Herder, 1954).

Melloni, Alberto and Nicolaus. *Innocenzo IV: La concezione e l'esperienza della cristianità come regimen unius personae* (Genoa: Marietti, 1990).

Menn, Stephen. *Descartes and Augustine* (Cambridge: Cambridge University Press, 1998).

"Al-Fārābī's *Kitāb al-ḥurūf* and his Analysis of the Senses of Being," *Arabic Sciences and Philosophy* 18 (2008) 59–97.

Mensa i Valls, Jaume. *Arnau de Vilanova, espiritual: guia bibliogràfica* (Barcelona: Institut d'Estudis Catalans, 1994).

Menut, Albert D. "A Provisional Bibliography of Oresme's Writings," *Mediaeval Studies* 28 (1966) 279–99.

Mercer, Christia. *Leibniz's Metaphysics: Its Origins and Development* (Cambridge: Cambridge University Press, 2001).

Mercken, H. P. F. "The Greek Commentators on Aristotle's *Ethics*," in R. Sorabji (ed.) *Aristotle Transformed: The Ancient Commentaries and their Influence* (London: Duckworth, 1990) 407–43.

Merlan, Philip. *Monopsychism, Mysticism, and Metaconsciousness* (The Hague: Nijhoff, 1963).

Mesch, Barry. "Principles of Judaism in Maimonides and Joseph ibn Caspi," in J. Reinharz and D. Schwetschinski (eds.) *Mystics, Philosophers and Politicians* (Durham, NC: Duke University Press, 1982) 85–98.

Meuthen, Erich. *Nikolaus von Kues, 1401–1464. Skizze einer Biographie*, 4th edn (Münster: Aschendorff, 1979).

Meuthen, Erich and Hermann Hallauer (eds). *Acta Cusana. Quellen zur Lebensgeschichte des Nikolaus von Kues* (Hamburg: Meiner, 1976–).

Mews, Constant. *Abelard and Heloise* (Oxford: Oxford University Press, 2005).

"Logica in the Service of Philosophy: William of Champeaux and his Influence," in R. Berndt (ed.) *Schrift, Schreiber, Schenker: Studien zur Abtei Sankt Viktor zu Paris und zu den Viktorinern* (Berlin: Akademie-Verlag, 2005) 61–101.

"Nominalism and Theology before Abaelard: New Light on Roscelin of Compiègne," *Vivarium* 30 (1992) 4–33.

Meyendorff, John. *A Study of Gregory Palamas*, tr. G. Lawrence, 2nd edn (London: Faith Press, 1974).

Meyer, Gerbert and Albert Zimmermann (eds.). *Albertus Magnus – Doctor Universalis* (Mainz: Matthias-Grüewald, 1980).

Meyer, Susan Suavé. *Aristotle on Moral Responsibility: Character and Cause* (Oxford: Blackwell, 1993).

Michael, Bernd. "Johannes Buridan: Studien zu seinem Leben, seinen Werken und zu Rezeption seiner Theorien im Europa des späten Mittelalters" (Ph.D. dissertation: University of Berlin, 1985).

Michael, Emily. "John Wyclif on Body and Mind," *Journal of the History of Ideas* 64 (2003) 343–60.

Michaud-Quantin, Pierre. "A propos des premières *summae confessorum*," *Recherches de théologie ancienne et médiévale* 26 (1959) 264–306.

"Die Psychologie bei Radulphus Ardens, einem Theologen des ausgehenden XII. Jahrunderts," *Münchener theologische Zeitschrift* 9 (1958) 81–96.

"Les puissances de l'âme chez Jean de la Rochelle," *Antonianum* 24 (1949) 489–505.

Sommes de casuistique et manuels de confession au moyen âge (Leuven: Nauwelaerts, 1962).

Michon, Cyrille. *Nominalisme: la théorie de la signification de Guillaume d'Ockham* (Paris: Vrin, 1994).

Michot, Jean. "La pandémie avicennienne," *Arabica* 40 (1993) 287–344.

Miethke, Jürgen. "Literaturbericht über Marsilius von Padua (1958–1992)," *Bulletin de philosophie médiévale* 35 (1993) 150–65.

"Papst, Ortsbischof und Universität in den Pariser Theologenprozessen des 13. Jahrunderts," in A. Zimmermann (ed.) *Die Auseinandersetzungen an der Pariser Universität im XIII. Jahrhundert* (Berlin: De Gruyter, 1976) 52–94.

Ockhams Weg zur Sozialphilosophie (Berlin: De Gruyter, 1969).

Migne, Jacques-Paul (ed.). *Patrologiae cursus completus: series graeca* (Paris, 1857–76).

(ed.). *Patrologiae cursus completus: series latina* (Paris, 1844–91).

Mikhail, Hanna. *Politics and Revelation: Mawardi and After* (Edinburgh: Edinburgh University Press, 1995).

Millás Vallicrosa, José Maria. *Las traducciones orientales en los manuscritos de la Biblioteca Catedral de Toledo* (Madrid: Consejo superior de investigaciones cientificas, 1942) 285–312.

Miller, Barry. "Necessarily Terminating Causal Series," *Mind* 91 (1982) 201–15.

Miller, L. B. "Islamic Disputation Theory: A Study of the Development of Dialectic in Islam from the Tenth through Fourteenth Centuries" (Ph.D. dissertation: Princeton University, 1984).

Minio-Paluello, Lorenzo. "The *'Ars disserendi'* of Adam of Balsham 'Parvipontanus'," *Mediaeval and Renaissance Studies* 3 (1954) 116–69.

"Dante's Reading of Aristotle," in C. Grayson (ed.) *The World of Dante* (Oxford: Clarendon Press, 1980) 61–80.

"Jacobus Veneticus Graecus, Canonist and Translator of Aristotle," *Traditio* 8 (1952) 265–304.

Opuscula: The Latin Aristotle (Amsterdam: Hakkert, 1972).

Ministeri, Blasio. *De vita et operibus Augustini de Ancona O.E.S.A. (1328)* (Rome: Analecta Augustiniana, 1953).

Miquel, André. *La géographie humaine du monde musulman jusqu'au milieu du 11ᵉ siecle* (Paris: La Haye, 1975).

Moevs, Christian. *The Metaphysics of Dante's Comedy* (Oxford: Clarendon Press, 2005).

Möhle, Hannes. *Formalitas und modus intrinsecus. Die Entwicklung der Scotischen Metaphysik bei Franciscus de Mayronis* (Münster: Aschendorff, 2007).

Mohler, Ludwig. *Kardinal Bessarion als Theologe, Humanist, und Staatsmann: Funde und Forschungen* (Paderborn: Schöningh, 1923–42; repr. Aalen: Scientia Verlag, 1967).

Mojsisch, Burkhard. *Meister Eckhart: Analogy, Univocity and Unity*, tr. O. F. Summerell (Amsterdam: Grüner, 2001).

Molland, A. George. "An Examination of Bradwardine's Geometry," *Archive for History of Exact Sciences* 19 (1978) 113–75.

"John Dumbleton and the Status of Geometrical Optics," in A. G. Molland (ed.) *Mathematics and the Medieval Ancestry of Physics* (Aldershot: Variorum, 1995).

"Nicole Oresme and Scientific Progress," *Miscellanea Mediaevalia* 9 (1974) 206–20.

Mollat, Michel. "Hospitalité et assistance au début du XIIIe siècle," in D. Flood (ed.) *Poverty in the Middle Ages* (Werl: Coelde, 1975).

Les pauvres au Moyen Age: étude sociale (Paris: Hachette, 1978).

Molteni, Paulo. *Roberto Holcot O.P.: dottrina della grazia e della giustificazione con due questioni quodlibetali inedite* (Pinerolo: Editrice Alzani, 1967).

Monagle, Clare. *Christological Nihilism in the Twelfth Century: The Contested Reception of Peter Lombard's* Sententiae (Turnhout: Brepols, 2007).

Monahan, Arthur. "The Subject of Metaphysics for Peter of Auvergne," *Mediaeval Studies* 16 (1954) 118–30.

Monfasani, John. *Byzantine Scholars in Renaissance Italy: Cardinal Bessarion and Other Émigrés: Selected Essays* (Aldershot: Variorum, 1995).

(ed.). *Collectanea Trapezuntiana: Texts, Documents, and Bibliographies of George of Trebizond* (Binghamton, NY: Medieval and Renaissance Texts and Studies, 1984).

George of Trebizond: A Biography and a Study of his Rhetoric and Logic (Leiden: Brill, 1976).

Monnot, Guy. "Les controverses théologiques dans l'œuvre de Shahrastani," in A. Le Boulluec (ed.) *La controverse religieuse et ses formes* (Paris: Cerf, 1995) 281–96.

Montada, Josef Puig. "Philosophy in Andalusia: Ibn Bājja and Ibn Ṭufayl," in P. Adamson and R. Taylor (eds.) *The Cambridge Companion to Arabic Philosophy* (Cambridge: Cambridge University Press, 2005) 155–79.

Moody, Ernest A. "Galileo and Avempace: The Dynamics of the Leaning Tower Experiment," *Journal for the History of Ideas* 12 (1951) 163–93, 375–422.

The Logic of William of Ockham (New York: Sheed and Ward, 1935).

"A Quodlibetal Question of Robert Holcot, O.P. on the Problem of the Objects of Knowledge and of Belief," *Speculum* 39 (1964), 53–74.

The Rise of Mechanism in 14th Century Natural Philosophy: Translations of Texts on the Causal and Mathematical Analysis of Motion by John Buridan (ca. 1300–1358) and John Dumbleton (fl. 1328–1340) (New York: Columbia University Press, 1950).

"William of Auvergne and his Treatise *De anima*," in *Studies in Medieval Philosophy, Science, and Logic: Collected Papers, 1933–69* (Berkeley: University of California Press, 1975) 1–109.

Moonan, Lawrence. *Divine Power: The Medieval Power Distinction up to its Adoption by Albert, Bonaventure, and Aquinas* (Oxford: Clarendon Press, 1994).

"Impossibility and Peter Damian," *Archiv für Geschichte der Philosophie* 62 (1980) 146–63.

Mooney, Caroline. "The Authorial Role of Brother A. in the Composition of Angela of Foligno's Revelations," in A. Matter and J. Coakley (eds.) *Creative Women in Medieval and Early Modern Italy: A Religious and Artistic Renaissance* (Philadelphia: University of Pennsylvania Press, 1994).

Gendered Voices: Medieval Saints and their Interpreters (Philadelphia: University of Pennsylvania Press, 1999).

Moore, Philip. *The Works of Peter of Poitiers, Master in Theology and Chancellor of Paris (1193–1205)* (Notre Dame, IN: University of Notre Dame Press, 1936).

Moore, R. I. *The Formation of a Persecuting Society: Power and Deviance in Western Europe, 950–1250*, 2nd edn (Oxford: Blackwell, 2007).

Moore, Rebecca. *Jews and Christians in the Life and Thought of Hugh of St. Victor* (Atlanta, GA: Scholars Press, 1998).

Moore, W. L. "Via Moderna," in J. R. Strayer (ed.) *Dictionary of Middle Ages* (New York: Scribner, 1989) XII: 406–9.

Moose, Ebrahim. *Ghazali and the Poetics of Imagination* (Oxford: Oxford University Press, 2006).

Moran, Dermot. *The Philosophy of John Scottus Eriugena: A Study of Idealism in the Middle Ages* (Cambridge: Cambridge University Press, 1989).

Moraux, Paul. *D'Aristote à Bessarion: trois exposés sur l'histoire et la transmission de l'Aristotélisme grec* (Quebec: Les Presses de l'Université Laval, 1970).

Moreno-Riano, Gerson. *The World of Marsilius of Padua* (Turnhout: Brepols, 2006).

Moreno Rodríguez, Felipe. *La lucha de Ramón Llull contra el averroismo entre 1309 y 1311* (Madrid: Universidad Computense de Madrid, 1982).

Morenzoni, Franco and Jean-Yves Tilliette (eds.). *Autour de Guillaume d'Auvergne (+1249)* (Turnhout: Brepols, 2005).

Morewedge, Parviz. "The Analysis of 'Substance' in Tusi's *Logic* and in the Ibn Sinian Tradition," in G. Hourani (ed.) *Essays on Islamic Philosophy and Science* (Albany: State University of New York Press, 1975).

Mormando, Franco. *The Preacher's Demons: Bernardino of Siena and the Social Underworld of Early Renaissance Italy* (Chicago: University of Chicago Press, 1999).

Morris, Colin. *The Discovery of the Individual 1050–1200* (New York: Harper and Row, 1972).

Mostert, Marco. *The Political Theology of Abbo of Fleury: A Study of the Ideas about Society and Law of the Tenth-Century Monastic Reform Movement* (Hilversum: Verloren, 1987).

Mourin, Louis. *Jean Gerson prédicateur français* (Bruges: De Tempel, 1952).

Muckle, J. T. "Greek Works Translated into Latin before 1350," *Mediaeval Studies* 4 (1942) 33–42; 5 (1943) 102–14.

  "Isaac Israeli's Definition of Truth," *Archives d'histoire doctrinale et littéraire du moyen âge* 8 (1933) 5–8.

  "Utrum Theologia sit scientia. A Quodlibetal Question of Robert Holcot, O.P.," *Mediaeval Studies* 20 (1958) 127–53.

Mudarris Raḍawī, Muḥammad T. *Aḥwal wa ātār-i Abū Jaʿfar Muḥammad al-Ṭūsī* (Tehran: Bunyād-i Farhang-i Irān, 1975).

Mulchahey, Marian Michèle. *"First the Bow is Bent in Study . . .": Dominican Education before 1350* (Toronto: Pontifical Institute of Mediaeval Studies, 1998).

Muldoon, James. *Popes, Lawyers, and Infidels: The Church and the Non-Christian World, 1250–1550* (Philadelphia: University of Pennsylvania Press, 1979).

Muller, Catherine M. *Marguerite Porete et Marguerite d'Oingt de l'autre côté du miroir* (New York: Lang, 1999).

Müller, Jean P. "La date de la lecture sur les Sentences de Jean Quidort," *Angelicum* 36 (1959) 129–62.

Müller, Sigrid. "The Ethics of John Capreolus and the *Nominales*," *Verbum: Analecta Neolatina* 6 (2004) 301–14.

  Handeln in einer kontingenten Welt: zu Begriff und Bedeutung der rechten Vernunft (recta ratio) bei Wilhelm von Ockham (Tübingen: Francke, 2000).

  "Sprache, Wirklichkeit und Allmacht Gottes: das Bild der *via moderna* bei Johannes Capreolus (1380–1444) und seine Bedeutung für die Schulbildung im 15. Jahrhundert," in J. Aertsen and M. Pickavé (eds.) *Herbst des Mittelalters? Fragen zur Bewertung des 14. und 15. Jahrhunderts* (Berlin: De Gruyter, 2004) 157–72.

Müller, Wolfgang. "Huguccio of Pisa: Canonist, Bishop, and Grammarian?," *Viator* 22 (1991) 121–52.

Muñoz García, Angel. "Albert of Saxony, Bibliography," *Bulletin de philosophie médiévale* 32 (1990) 161–90.

Munsch, Nathan. "The Treatise on the Incarnation of Master Martin: Christology in the Late Twelfth Century" (Ph.D. dissertation: Boston College, 2002).

Murdoch, John. "From Social to Intellectual Factors: An Aspect of the Unitary Character of Late Medieval Learning," in J. Murdoch and E. Sylla (eds.) *The Cultural Context of Medieval Learning* (Dordrecht: Reidel, 1975) 271–348.

  "Henry of Harclay and the Infinite," in A. Maierù and A. Paravicini Bagliani (eds.) *Studi sul XIV secolo in memoria di Anneliese Maier* (Rome: Edizioni di Storia e Letteratura, 1981) 219–61.

  "Infinity and Continuity," in N. Kretzmann *et al.* (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 564–91.

  "*Mathesis in philosophiam scholasticam introducta*: The Rise and Development of the Application of Mathematics in Fourteenth-Century Philosophy and Theology," *Arts libéraux et philosophie au moyen âge* (Montréal: Institut d'études médiévales, 1969) 215–54.

  "*Subtilitates Anglicanae* in Fourteenth-Century Paris: John of Mirecourt and Peter Ceffons," in M. P. Cosman and B. Chandler (eds.) *Machaut's World: Science and Art in the Fourteenth Century* (New York: New York Academy of Science, 1978) 51–86.

  "Thomas Bradwardine: Mathematics and Continuity in the Fourteenth Century," in E. Grant and J. Murdoch (eds.) *Mathematics and its Applications to Science and Natural Philosophy in the Middle Ages* (Cambridge: Cambridge University Press, 1984) 103–37.

Murdoch, John and Edith Sylla. "The Science of Motion," in D. Lindberg (ed.) *Science in the Middle Ages* (Chicago: University of Chicago Press, 1978) 206–65.

Murdoch, John and Edward Synan. "Two Questions on the Continuum: Walter Chatton (?), O.F.M. and Adam Wodeham, O.F.M.," *Franciscan Studies* 25 (1966) 212–88.

Murphy, Claudia Eisen. "Aquinas on our Responsibility for our Emotions," *Medieval Philosophy and Theology* 8 (1999) 163–205.

Murray, Alexander. "Confession before 1215," *Transactions of the Royal Historical Society* 3 (1993) 51–81.

  Reason and Society in the Middle Ages (Oxford: Clarendon Press, 1978).

  Suicide in the Middle Ages (Oxford: Oxford University Press, 1998–2002).

Murray, John Courtney. "Remarks on the Moral Problem of War," *Theological Studies* 20 (1959) 40–61.

Muscat, P. "Guillelmi de Ware quaestio inedita de unitate Dei," *Antonianum* 2 (1927) 335–50.

Nabulsi, Karma. "Conceptions of Justice in War: From Grotius to Modern Times," in R. Sorabji and D. Rodin (eds.) *The Ethics of War: Shared Problems in Different Traditions* (Aldershot: Ashgate, 2006) 44–60.

Nadler, Steven and T. M. Rudavsky (eds.). *The Cambridge History of Jewish Philosophy* (Cambridge: Cambridge University Press, 2009).

Nagl, Alfred. *Abhandlungen zur Geschichte der Mathematik* (Leipzig: Teubner, 1890).

Nagy, Albino. *Die philosophischen Abhandlungen des Jaʿqub ben Ishaq al-Kindi* (Münster: Aschendorff, 1897).

Nallino, Carlo A. "Tracce di opere greche giunte agli arabi per trafila pehlevica," in T. W. Arnold and R. A. Nicholson (eds.) *A Volume of Oriental Studies Presented to E.G. Browne* (Cambridge: Cambridge University Press, 1922) 345–63; repr. in M. Nallino and C. A. Nallino (eds.) *Raccolta di scritti editi e inediti* (Rome: Istituto per l'Oriente, 1948) VI: 285–303.

Nardi, Bruno. *Dante e la cultura medievale*, ed. P. Mazantini (Rome: Laterza, 1985).

    Saggi di filosofia dantesca (Florence: La Nuova Italia, 1967).

    Saggi sull'Aristotelismo padovano dal secolo XIV al XVI (Florence: Sansone, 1958).

Nash, Peter W. "The Accidentality of *Esse* According to Giles of Rome," *Gregorianum* 38 (1957) 103–15.

    "Giles of Rome on Boethius's 'Diversum est esse et id quod est'," *Mediaeval Studies* 20 (1950) 57–91.

Nasr, Seyyed Hossein. *An Introduction to Islamic Cosmological Doctrines: Conceptions of Nature and Methods Used for its Study by the Ikhwān al-Ṣafāʾ, al-Bīrūnī, and Ibn Sīnā*, rev. edn (Albany: State University of New York Press, 1993).

Nasr, Seyyed Hossein and Oliver Leaman (eds.). *History of Islamic Philosophy* (London: Routledge, 1995).

Nasr, Seyyed Hossein and Aminrazavi Mehdi (eds.). *An Anthology of Philosophy in Persia* (Oxford: Oxford University Press, 1999).

Nassar, Nassif. *La pensée réaliste d'Ibn Khaldūn* (Paris: Presses universitaire de France, 1967).

National Conference of Catholic Bishops. *The Challenge of Peace: God's Promise and our Response* (Washington, DC: United States Catholic Conference, 1983).

Nederman, Cary J. "Bracton on Kingship Revisited," *History of Political Thought* 5 (1984) 61–77.

    Community and Consent: The Secular Political Theory of Marsiglio of Padua's Defensor Pacis (Lanham, MD: Rowman and Littlefield, 1995).

    John of Salisbury (Tempe: Arizona Center for Medieval and Renaissance Studies, 2005).

    "Kings, Peers and Parliament: Virtue and Corulership in Walter Burley's *Commentarius in VIII Libros Politicorum Aristotelis*," *Albion* 24 (1992) 391–407.

    Political Thought in Early Fourteenth-Century England: Treatises by Walter de Milemete, William of Pagula, and William of Ockham (Turnhout: Brepols, 2002).

    "The Royal Will and the Baronial Bridle: The Place of the *Addicio de cartis* in Bractonian Political Thought," *History of Political Thought* 9 (1988) 415–29.

Nederman, Cary J. and Cynthia J. Neville. "The Origins of the *Speculum regis Edwardi III* of William of Pagula," *Studi Medievali*, 3rd ser. 38 (1997) 317–29.

Nederman, Cary J. and Mary E. Sullivan. "Reading Aristotle through Rome: Republicanism and History in Ptolemy of Lucca's *De regimine principum*," *European Journal of Political Theory* 7 (2008) 223–40.

Needham, Paul. "Duhem's Theory of Mixture in the Light of the Stoic Challenge to the Aristotelian Conception," *Studies in History and Philosophy of Science* 33 (2002) 685–708.

Netter, Thomas and Walter W. Shirley (eds.). *Fasciculi zizaniorum magistri Johannis Wyclif cum tritico* (Rolls Series 5) (London: Longman, Brown, Green, Longmans, and Roberts, 1858).

Netton, Ian R. *Al-Farabi and his School* (New York: Routledge, 1992).

    Muslin Neoplatonists: An Introduction to the Thought of the Brethren of Purity, Ikhwān al-Ṣafāʾ (London: Allen and Unwin, 1982).

Newhauser, Richard. *The Early History of Greed: The Sin of Avarice in Early Medieval Thought and Literature* (Cambridge: Cambridge University Press, 2000).

    (ed.). *In the Garden of Evil: The Vices and their Culture in the Middle Ages* (Toronto: Pontifical Institute of Mediaeval Studies, 2005).

    (ed.). *The Seven Deadly Sins: From Communities to Individuals* (Leiden: Brill, 2007).

    The Treatise on Vices and Virtues in Latin and the Vernacular (Turnhout: Brepols, 1993).

Newhauser Richard and István Bejczy. *Towards a Revised Incipitarium: Corrections, Supplements, Deletions, and Additions to Update Morton Bloomfield et al., Incipits of Latin Works on the Virtues and Vices* (Turnhout: Brepols, 2007).

Newman, Barbara. *God and the Goddesses: Vision, Poetry, and Belief in the Middle Ages* (Philadelphia: University of Pennsylvania Press, 2003).

"Hildegard and her Hagiographers" in C. Mooney (ed.) *Gendered Voices: Medieval Saints and their Interpreters* (Philadelphia: University of Pennsylvania Press, 1999) 16–34.

"Hildegard of Bingen: Visions and Validation," *Church History* 54 (1985) 163–75.

"*La Mystique Courtoise*: Thirteenth-Century Beguines and the Art of Love," in *From Virile Woman to Woman Christ: Studies in Medieval Religion and Literature* (Philadelphia: University of Pennsylvania Press, 1995) 137–67.

Sister of Wisdom, St. Hildegard's Theology of the Feminine (Berkeley: University of California Press, 1987).

(ed.). *Voice of the Living Light: Hildegard of Bingen and her World* (Berkeley: University of California Press, 1998).

Newman, William R. *Atoms and Alchemy: Chymistry and the Experimental Origins of the Scientific Revolution* (Chicago: University of Chicago Press, 2006).

"New Light on the Identity of Geber," *Sudhoffs Archiv* 69 (1985) 76–90.

"The *Summa Perfectionis* and Late Medieval Alchemy: A Study of Chemical Traditions, Techniques, and Theories in Thirteenth-Century Italy" (Ph.D. dissertation: Harvard University, 1986).

Nicol, Donald. "Byzantine Political Thought," in J. H. Burns (ed.) *The Cambridge History of Medieval Political Thought c.350–c.1450* (Cambridge: Cambridge University Press, 1988) 51–82.

Nielsen, Lauge O. "The Debate between Peter Auriol and Thomas Wylton on Theology and Virtue," *Vivarium* 38 (2000) 35–98.

"Dictates of Faith versus Dictates of Reason: Peter Auriole on Divine Power, Creation, and Human Rationality," *Documenti e studi sulla tradizione filosofica medievale* 7 (1996) 213–41.

"The Intelligibility of Faith and the Nature of Theology: Peter Auriole's Theological Programme," *Studia Theologica* 53 (1999) 26–39.

"Peter Auriol's Way with Words: The Genesis of Peter Auriol's Commentaries on Peter Lombard's First and Fourth Books of the Sentences," in G. Evans (ed.) *Mediaeval Commentaries on the* Sentences *of Peter Lombard* (Leiden: Brill, 2002) 149–219.

"The *Quodlibet* of Peter Auriol," in C. Schabel (ed.) *Theological Quodlibeta in the Middle Ages: The Fourteenth Century* (Leiden: Brill, 2007) 267–331.

Theology and Philosophy in the Twelfth Century: A Study of Gilbert Porreta's Thinking and the Theological Expositions of the Doctrine of the Incarnation during the Period 1130–1180 (Leiden: Brill, 1982).

Nielsen, Lauge O., Timothy Noone, and Cecilia Trifogli. "Thomas Wylton's Question on the Formal Distinction as Applied to the Divine," *Documenti e studi sulla tradizione filosofica medievale* 14 (2003) 330–88.

Nielsen, Lauge O. and Cecilia Trifogli. "Questions on the Beatific Vision by Thomas Wylton and Sibert de Beka," *Documenti e studi sulla tradizione filosofica medievale* 17 (2006) 511–84.

Noonan, John. *Contraception: A History of its Treatment by the Catholic Theologians and Canonists* (Cambridge, MA: Harvard University Press, 1965).

"Gratian Slept Here: The Changing Identity of the Father of the Systematic Study of Canon Law," *Traditio* 35 (1979) 145–72.

The Scholastic Analysis of Usury (Cambridge, MA: Harvard University Press, 1957).

"Who was Rolandus?," in S. Kuttner *et al.* (eds.) *Law, Church and Society: Essays in Honor of Stephan Kuttner* (Philadelphia: University of Pennsylvania Press, 1977) 21–48.

Noone, Timothy. "Alnwick on the Origin, Nature, and Function of the Formal Distinction," *Franciscan Studies* 53 (1993) 231–61.

"An Edition and Study of the *Scriptum super Metaphysicam*, bk. 12, dist. 2: A Work Attributed to Richard Rufus of Cornwall" (Ph.D. dissertation: University of Toronto, 1987).

"Evidence for the Use of Adam of Buckfield's Writings at Paris," *Mediaeval Studies* 54 (1992) 308–16.

"The Franciscans and Epistemology: Reflections on the Roles of Bonaventure and Scotus," in R. E. Houser (ed.) *Medieval Masters: Essays in Memory of Msgr. E.A. Synan*, Thomistic Papers VII (Houston, TX: Center for Thomistic Studies, 1999) 63–90.

"Richard Rufus of Cornwall and the Authorship of the *Scriptum super metaphysicam*," *Franciscan Studies* 49 (1989) 55–91.

"Richard Rufus on Creation, Divine Immutability, and Future Contingency in the *Scriptum super Metaphysicam*," *Documenti e studi sulla tradizione filosofica medievale* 4 (1993) 1–23.

"Roger Bacon and Richard Rufus on Aristotle's *Metaphysics*: A Search for the Ground of Disagreement," *Vivarium* 25 (1997) 251–65.

Noone, Timothy and R. James Long. "Fishacre and Rufus on the Metaphysics of Light," in J. Hamesse (ed.), *Roma, magister mundi: itineraria culturae medievalis: mélanges offerts au Père L.E. Boyle à l'occasion de son 75e anniversaire* (Louvain-la-Neuve: Fédération internationale des instituts médiévales, 1998) I: 517–48.

Normore, Calvin G. "Buridan's Ontology," in J. Bogen and J. E. McGuire (eds.) *How Things Are: Studies in Predication and the History and Philosophy of Science* (Dordrecht: Reidel, 1985) 189–203.

"Duns Scotus's Modal Theory," in T. Williams (ed.) *The Cambridge Companion to Duns Scotus* (Cambridge: Cambridge University Press, 2003) 129–60.

"The Necessity in Deduction: Cartesian Inference and its Medieval Background," *Synthese* 96 (1993) 437–54.

"Picking and Choosing: Anselm and Ockham on Choice," *Vivarium* 36 (1998) 23–39.

"Walter Burley on Continuity," in N. Kretzmann (ed.) *Infinity and Continuity in Ancient and Medieval Thought* (Ithaca, NY: Cornell University Press, 1982) 258–69.

North, John. "Natural Philosophy in Late Medieval Oxford," in J. I. Catto and R. Evans (eds.) *The History of the University of Oxford*, vol. II: *Late Medieval Oxford* (Oxford: Oxford University Press, 1992) 76–95.

Nouzille, Phillippe and Olivier Boulnois. *Expérience de Dieu et théologie monastique au XIIᵉ siècle* (Paris: Cerf, 1999).

Novaes, Catarina Dutihl. "Buridan's *consequentia*: Consequence and Inference within a Token-based Semantics," *History and Philosophy of Logic* 26 (2005) 277–97.

"Ralph Strode's *obligationes*: The Return of Consistency and the Epistemic Turn," *Vivarium* 44 (2006) 338–74.

Novak, David. *The Theology of Nahmanides Systematically Presented* (Atlanta, GA: Scholars Press, 1992).

Novotný, Václav, and Vlastimil Kybal. *M. Jan Hus, Zivot a Ucení* (Prague: Nákladem Jana Laichtera, 1919–31) 5 vols.

Nuchelmans, Gabriel. *Late-Scholastic and Humanist Theories of the Proposition* (Amsterdam: North-Holland, 1980).

Theories of the Proposition: Ancient and Medieval Conceptions of the Bearers of Truth and Falsity (Amsterdam: North-Holland, 1973).

Nussbaum, Martha. *The Therapy of Desire: Theory and Practice in Hellenistic Ethics* (Princeton, NJ: Princeton University Press, 1994).

Oakley, Francis. *Kingship: The Politics of Enchantment* (Oxford: Blackwell, 2006).

The Political Thought of Pierre d'Ailly: The Voluntarist Tradition (New Haven, CT: Yale University Press, 1964).

Oberman, Heiko A. *Archbishop Thomas Bradwardine* (Utrecht: Kemink and Zoon, 1957).

"Facientibus quod in se est Deus non denegat gratiam: Robert Holcot, OP and the Beginnings of Luther's Theology," *Harvard Theological Review* 55 (1962) 317–42.

(ed.). *Gregor von Rimini: Werk und Wirkung bis zur Reformation* (Berlin: De Gruyter, 1981).

The Harvest of Medieval Theology: Gabriel Biel and Late Medieval Nominalism (Cambridge, MA: Harvard University Press, 1963).

Werden und Wertung der Reformation: Vom Wegestreit zum Glaubenskampf (Tübingen: Mohr, 1977).

Oberman, Heiko A. and James A. Weisheipl. "The *Sermo epinicius* ascribed to Thomas Bradwardine," *Archives d'histoire doctrinale et littéraire du moyen âge* 25 (1958) 295–329.

O'Brien, Andrew. "Duns Scotus' Teaching on the Distinction between Essence and Existence," *New Scholasticism* 38 (1964) 61–77.

Obrist, Barbara (ed.). *Abbon de Fleury: philosophie, science et comput autour de l'an mil* (Paris: Centre d'histoire des sciences et des philosophies arabes et médiévales, 2004).

O'Carroll, Mary. *A Thirteenth-Century Preacher's Handbook: Studies in MS Laud misc. 511* (Toronto: Pontifical Institute of Medieval Studies, 1997).

O'Donnell, J. Reginald. "The Syncategoremata of William of Sherwood," *Mediaeval Studies* 3 (1941) 46–93.

O'Donovan, Oliver. *The Just War Revisited* (Cambridge: Cambridge University Press, 2003).

Oehler, Klaus. *Antike Philosophie und byzantinisches Mittelalter* (Munich: Beck, 1969).

Oliger, Livarius. "Servasanto da Faenza e il suo 'Liber de virtutibus et vitiis'," in *Miscellanea Francesco Ehrle* (Rome: Biblioteca Apostolica Vaticana, 1924) I: 148–89.

Olivieri, Luigi. *Pietro d'Abano e il pensiero neolatino* (Padua: Antenore, 1988).

Olsen, Glenn. "John of Salisbury's Humanism," in C. Leonardi (ed.) *Gli unamesimi medievali* (Florence: SISMEL, 1988).

O'Malley, John. "Medieval Preaching," in T. L. Amos *et al.* (eds.) *De ore Domini: Preacher and Word in the Middle Ages* (Kalamazoo, MI: Medieval Institute, 1989) 1–13.

Omar, Saleh Beshara. *Ibn al-Haytham's Optics: A Study of the Origins of Experimental Science* (Minneapolis, MN: Bibliotheca Islamica, 1977).

O'Meara, John J. *Eriugena* (Oxford: Clarendon Press, 1988).

Onuma, Yasuaki. *A Normative Approach to War: Peace, War and Justice in Hugo Grotius* (Oxford: Clarendon Press, 1993).

Origo, Iris. *The World of San Bernardino* (New York: Harcourt Brace, 1962).

Orlandi, Stefano. *Antonino, arcivescovo di Firenze, dottore della chiesa: studi* (Florence: Il Rosario, 1959).

Ormsby, Eric. *Ghazali* (Oxford: Oneworld, 2007).

Theodicy in Islamic Thought: The Dispute over al-Ghazâlî's "Best of All Possible Worlds" (Princeton, NJ: Princeton University Press, 1984).

Osborne, Kenan. "Alexander of Hales: Precursor and Promoter of Franciscan Theology," in *The History of Franciscan Theology, St Bonaventure* (New York: Franciscan Institute, 1994) 1–38.

Ostlender, Heinrich (ed.). *Sententiae florianenses* (Bonn: Hanstein, 1929).

Ott, Ludwig. *Untersuchungen zur theologischen Briefliteratur der Frühscholastik: unter besonderer Berücksichtigung des Viktorinerkreises* (Münster: Aschendorff, 1937).

Ottaviano, Carmelo. *Guglielmo d'Auxerre, d. 1231: la vita, le opere, il pensiero* (Rome: L'Universale tipografia poliglotta, 1929).

Otte, James. "Alfredus Anglicus and the Reception of Aristotle," *Proceedings of the Patristic, Mediaeval and Renaissance Conference* 15 (1990) 127–39.

"The Life and Writings of Alfredus Anglicus," *Viator* 3 (1972) 275–91.

Otten, Willemien. *The Anthropology of Johannes Scottus Eriugena* (Leiden: Brill, 1991).

Ottman, Jennifer and Rega Wood. "Walter Burley: His Life and Works," *Vivarium* 37 (1999) 1–24.

Ottosson, Per-Gunnar. *Scholastic Medicine and Philosophy: A Study of Commentaries on Galen's Tegni, ca. 1300–1450* (Naples: Bibliopolis, 1984).

Ouy, Gilbert. "Discovering Gerson the Humanist: Fifty Years of Serendipity," in B. P. McGuire (ed.) *A Companion to Jean Gerson* (Leiden: Brill, 2006) 79–132.

Owen, G. E. L. "Logic and Metaphysics in Some Early Works of Aristotle," in G. Owen and D. Ingemar (eds.) *Aristotle and Plato in the Mid-Fourth Century: Papers of the Symposium Aristotelicum* (Gothenburg: Elanders, 1960) 163–90.

"Tithenai ta phainomena," in J. Barnes *et al.* (eds) *Articles on Aristotle 1: Science* (London: Duckworth, 1975) 113–26.

Ozment, Steven. *Homo spiritualis: A Comparative Study of the Anthropology of Johannes Tauler, Jean Gerson and Martin Luther (1509–16)* (Leiden: Brill, 1969).

Palazzo, Alessandro. "Ulrich of Strasbourg and Denys the Carthusian," *Bulletin de philosophie médiévale* 46 (2004) 61–113; 48 (2006) 163–208.

Panaccio, Claude. "Aquinas on Intellectual Representation," in D. Perler (ed.) *Ancient and Medieval Theories of Intentionality* (Leiden: Brill, 2001) 185–201.

Le discours intérieur de Platon à Guilaume d'Ockham (Paris: Seuil, 1999).

"From Mental Word to Mental Language," *Philosophical Topics* 20 (1992) 125–47.

Les mots, les concepts et les choses. Le sémantique de Guillaume d'Occam et le nominalisme d'aujourd'hui (Montréal: Bellarmin, 1991).

Ockham on Concepts (Aldershot: Ashgate, 2004).

"Semantics and Mental Language," in P. V. Spade (ed.) *The Cambridge Companion to Ockham* (Cambridge: Cambridge University Press, 1999) 53–75.

Panaccio, Claude and Ernesto Perini-Santos. "Guillaume d'Ockham et la *suppositio materialis*," *Vivarium* 42 (2004) 202–24.

Panella, Emilio. "Dal bene comune al bene del comune: I trattati politici di Remigio dei Girolami nella Firenze dei bianchi-neri," in *Politica e vita religiosa a Firenze tra '300 e '500* (Pistoia: Centro riviste della provincia romana, 1985) 1–198.

"Remigiana: Note biografiche e fiologiche," *Memorie Domenicane* 13 (1982) 366–421.

Panizza, Letizia. "Stoic Psychotherapy in the Middle Ages and Renaissance: Petrarch's *De remedies*," in M. J. Osler (ed.) *Atoms,* Pneuma, *and Tranquility: Epicurean and Stoic Themes in European Thought* (Cambridge: Cambridge University Press, 1991) 39–65.

Papadopoulos, Jean B. *Théodore II Lascaris, empereur de Nicée* (Paris: Picard, 1908).

Park, Katharine. "The Organic Soul," in C. Schmitt *et al.* (eds.) *The Cambridge History of Renaissance Philosophy* (Cambridge: Cambridge University Press, 1988) 464–84.

Parodi, Massimo (ed.). "Il linguaggio delle proportiones nella distinctio prima di Giovanni di Mirecourt," *Rivista critica di storia della filosofia* 39 (1984) 657–86.

Parsons, Terence, "The Traditional Square of Opposition," in E. Zalta (ed.) *The Stanford Encyclopedia of Philosophy* (Winter 2006 edition): http://plato.stanford.edu/archives/o win2006/entries/ square/.

Paschetto, Eugenia. *Pietro d'Abano, medico e filosofo* (Florence: Nuovedizioni E. Vallecchi, 1984).

Pascoe, Louis B. *Jean Gerson: Principles of Church Reform* (Leiden: Brill, 1973).

Pasiecznik, Marcellus. "John de Bassolis, OFM," *Franciscan Studies* 13 (1953) 59–77; 14 (1954), 49–80.

Pasnau, Robert. "Aquinas and the Content Fallacy," *Modern Schoolman* 75 (1998) 293–314.

(tr.). *Cambridge Translations of Medieval Philosophical Texts*, vol. III: *Mind and Knowledge* (Cambridge: Cambridge University Press, 2002).

"Form, Substance, and Mechanism," *Philosophical Review* 113 (2004) 31–88.

"Henry of Ghent and the Twilight of Divine Illumination," *Review of Metaphysics* 49 (1995) 49–75.

"Olivi on Human Freedom," in A. Boureau and S. Piron (eds.) *Pierre de Jean Olivi (1248–1298): pensée scolastique, dissidence spirituelle et société* (Paris: Vrin, 1999) 15–25.

"Olivi on the Metaphysics of Soul," *Medieval Philosophy and Theology* 6 (1997) 109–32.

"Sensible Qualities: The Case of Sound," *Journal of the History of Philosophy* 38.1 (2000): 27–40.

Theories of Cognition in the Later Middle Ages (Cambridge: Cambridge University Press, 1997).

Thomas Aquinas on Human Nature: A Philosophical Study of Summa theologiae Ia 75–89 (Cambridge: Cambridge University Press, 2002).

"William Heytesbury on Knowledge: Epistemology without Necessary and Sufficient Conditions," *History of Philosophy Quarterly* 12 (1995) 347–66.

Pasnau, Robert and Christopher Shields, *The Philosophy of Aquinas* (Boulder, CO: Westview, 2004).

Pattin, Adriaan. *L'anthropologie de Gérard d'Abbeville: étude préliminaire et édition critique de plusieurs Questions quodlibétiques concernant le sujet, avec l'édition complète du* De cogitationibus (Leuven: Leuven University Press, 1993)

"Gilles de Rome, O.E.S.A. (ca 1243–1316) et la distinction réelle de l'essence et de l'existence," *Revue de l'Université d'Ottawa* 23 (1953) 80*–116*.

"Jan van Hulshout (1405–1475) Vlaams wijsgeer en theoloog van de Universiteit te Keulen," *Tijdschrift voor Filosofie* 38 (1976) 104–38.

Pour l'histoire du sens agent: la controverse entre Barthélemy de Bruges et Jean de Jandun, ses antécédents et son évolution (Leuven: Leuven University Press, 1988).

"La structure de l'être fini selon Bernard d'Auvergne, O.P.," *Tijdschrift voor Filosofie* 24 (1962) 668–737.

"Een vijftiende-eeuws commentaar op het *De divinis nominibus* van de Pseudo-Dionysius: een onbekend werk van Johannes Hulshout van Mechelen (1405–1475). Een studie over de bronnen van dit werk," in *Handelingen van de Koninklijke Kring voor Oudheidkunde, Letteren en Kunst van Mechelen,* 98e Boekdeel (Mechelen: The Kring, 1995) 53–64.

Paulmier-Foucart, Monique and Marie-Christine Duchenne. *Vincent de Beauvais et le Grand miroir du monde* (Turnhout: Brepols, 2004).

Paulmier-Foucart, Monique, Serge Lusignan, and Alain Nadeau (eds.). *Vincent de Beauvais: intentions et réceptions d'une œuvre encyclopédique au Moyen Âge* (Paris: Vrin, 1990).

Paulus, Jean. "Les disputes d'Henri de Gand et de Gilles de Rome sur la distinction de l'essence et l'existence," *Archives d'histoire doctrinale et littéraire du moyen âge* 13 (1940–2) 323–58.

Henri de Gand. Essai sur les tendances de sa métaphysique (Paris: Vrin, 1938).

Payen, Jean Charles. "La penitence dans le contexte culturel des XIIᵉ et XIIIᵉ siècles: des doctrines contritionnistes aux pénitentiels vernaculaires," *Revue des sciences philosophiques et théologiques* 61 (1977) 399–428.

Payer, Pierre. *The Bridling of Desire: Views of Sex in the Later Middle Ages* (Toronto: University of Toronto Press, 1993).

Payne, Gordon. "Cognitive Intuition of Singulars Revisited (Matthew of Aquasparta versus B.J. Lonergan)," *Franciscan Studies* 41 (1981) 346–84.

Peden, A. M. *Abbo of Fleury and Ramsey: Commentary on the Calculus of Victorius of Aquitaine* (Oxford: Published for the British Academy by Oxford University Press, 2003).

Pedersen, Olaf. *The First Universities: Studium Generale and the Origins of University Education in Europe* (Cambridge: Cambridge University Press, 1997).

Pelster, Franz. "Die anonyme Verteidigungsschrift der Lehre Gilberts von Poitiers im Cod. Vat. 561 und ihr Verfasser Canonicus Adhemar von Saint-Ruf in Valence (um 1180)," *Studia mediaevalia in honorem Admodum Reverendi Patris Raymundi Josephi Martin* (Bruges: De Tempel, 1948) 113–46.

   "Heinrich von Harclay, Kanzler von Oxford, und seine Quaestionen," in *Miscellanea Francesco Ehrle* (Rome: Biblioteca Apostolica Vaticana, 1924) I: 307–56.

   "Literaturgeschichtliches zur Pariser theol. Schule aus den Jahren 1230–1256," *Scholastik* 5 (1930) 46–78.

Pelzer, A. "Les 51 articles de Guillaume Occam censurés, en Avignon, en 1326," *Revue d'histoire ecclésiastique* 18 (1922) 246–7.

   "Prosper de Reggio Emilia des Ermites de Saint-Augustin et le manuscrit latin 1086 de la Bibliothèque Vaticane," *Revue néoscolastique de philosophie* 30 (1928) 316–51.

Pennington, Kenneth. "The Consilia of Baldus de Ubaldis," *Tijdschrift voor Rechtsgeschiedenis* 56 (1988) 85–92.

   Medieval Canonists: A Bio-Bibliographical Listing: http://faculty.cua.edu/pennington/biobibl. htm.

Perarnau, Josep (ed.). *Actes de la I Trobada Internacional d'Estudis sobre Arnau de Vilanova* (Barcelona: Institut d'Estudis Catalans, 1995).

Percan, Josip. *Teologia come "scienza pratica" secondo Giovanni di Reading* (Grottaferrata: Editiones Collegii S. Bonaventurae, 1986).

Percival, W. Keith. "Changes in the Approach to Language," in N. Kretzmann *et al.* (eds.) *Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 808–17.

Perler, Dominik (ed.). *Ancient and Medieval Theories of Intentionality* (Leiden: Brill, 2001).

   "Crathorn on Mental Language," in C. Marmo (ed.) *Vestigia, Imagines, Verba. Semiotics and Logic in Medieval Theological Texts (XIIth–XIVth Century)* (Turnhout: Brepols, 1997) 337–54.

   "Does God Deceive Us? Skeptical Hypotheses in Late Medieval Epistemology," in H. Lagerlund (ed.) *Skepticism in Medieval Philosophy* (Leiden: Brill, forthcoming).

   "Essentialism and Direct Realism: Some Late Medieval Perspectives," *Topoi* 19 (2000) 111–22.

   "Intentionality and Action: Medieval Discussions on the Cognitive Capacities of Animals," in M. C. Pacheco and J. F. Meirinhos (eds.) *Intellect et imagination dans la philosophie médiévale* (Turnhout: Brepols, 2006) I: 73–98.

   "Peter Aureol vs. Hervaeus Natalis on Intentionality: A Text Edition with Introductory Remarks," *Archives d'histoire doctrinale et littéraire du moyen âge* 61 (1994) 227–62.

   "Seeing and Judging: Ockham and Wodeham on Sensory Cognition," in S. Knuuttila and P. Kärkkäinen (eds.) *Theories of Perception in Medieval and Early Modern Philosophy* (Dordrecht: Springer, 2008) 151–69.

   Theorien der Intentionalität im Mittelalter (Frankfurt: Klostermann, 2002).

   "Things in the Mind: Fourteenth-Century Controversies over 'Intelligible *Species*'," *Vivarium* 34 (1996) 231–53.

   "What Am I Thinking About? John Duns Scotus and Peter Aureol on Intentional Objects," *Vivarium* 32 (1994) 72–89.

   Zweifel und Gewissheit: skeptische Debatten im Mittelalter (Frankfurt: Klostermann, 2006).

Perler, Dominik and Ulrich Rudolph. *Logik und Theologie: das Organon im arabischen und im lateinischen Mittelalter* (Leiden: Brill, 2005).

   Occasionalismus: Theorien der Kausalität im arabisch-islamischen und im Europäischen Denken (Göttingen: Vandenhoeck und Ruprecht, 2000).

Perreiah, A. R. "Insolubilia in the Logica parva of Paul of Venice," *Medioevo* 4 (1978) 145–72.
  Paul of Venice: A Bibliographical Guide (Bowling Green, OH: Philosophy Documentation Center, 1986).

Pessin, Sarah. "The Influence of Islamic Thought on Maimonides," in E. Zalta (ed.) *The Stanford Encyclopedia of Philosophy* (Fall 2005 edition): http://plato.stanford.edu/archives/fall2005/entries/maimonides–islamic/.
  "Jewish Neoplatonism: Being above Being and Divine Emanation in Solomon Ibn Gabirol and Isaac Israeli," in D. H. Frank and O. Leaman (eds.) *The Cambridge Companion to Medieval Jewish Philosophy* (Cambridge: Cambridge University Press, 2003) 91–110.
  "Solomon Ibn Gabirol: Universal Hylomorphism and the Psychic Imagination" (Ph.D. dissertation: Ohio State University, 2000).

Peters, F. E. *Aristoteles Arabus: The Oriental Translations and Commentaries on the Aristotelian Corpus* (Leiden: Brill, 1968).

Peters, J. R. T. M. *God's Created Speech: A Study in the Speculative Theology of the Muʿtazilī Qāḍī l-quḍāt Abū l-Ḥasan ʿAbd al-Jabbār ibn Aḥmad al-Hamaḍānī* (Leiden: Brill, 1976).

Petroff, Elizabeth. *Body and Soul: Essays on Medieval Women and Mysticism* (New York: Oxford University Press, 1994).

Pfeffer, Jeremy. *Providence in the Book of Job: The Search for God's Mind* (Brighton: Sussex Academic Press, 2005).

Pfeiffer, Franz (ed.). *Deutsche Mystiker des vierzehnten Jahrhunderts* (Leipzig: Göschen, 1845–57; repr. Aalen: Scientia Verlag, 1962).

Phelps, Mary. "The Theory of Seminal Reasons in James of Viterbo," *Augustiniana* 30 (1980) 271–83.

Phyrigos, Antones. *Dalla controversia palamitica alla polemica esicastica, con un'edizione critica delle Epistole greche di Barlaam* (Rome: Antonianum, 2005).

Picavet, François. *Roscelin philosophe et theologien d'après la légende et d'après l'histoire; sa place dans l'histoire générale et comparée des philosophies medievales* (Paris: Alcan, 1911).

Piché, David (ed.). *La condamnation parisienne de 1277* (Paris: Vrin, 1999).
  Le problème des universaux à la Faculté des Arts de Paris entre 1230 et 1260 (Paris: Vrin, 2005).

Pickavé, Martin. *Heinrich von Gent über Metaphysik als erste Wissenschaft: Studien zu einem Metaphysikentwurf aus dem letzten Viertel des 13. Jahrhunderts* (Leiden: Brill, 2007).

Pietro Lombardo: Atti del XLIII Convegno storico internazionale (Spoleto: Fondazione Centro italiano di studi sull'alto medioevo, 2007).

Pilný, Josepha. *Jérôme de Prague: un orateur progressiste du Moyen Age* (Geneva: Perret-Gentil, 1974).

Pilsner, Joseph. *The Specification of Human Actions in St. Thomas Aquinas* (Oxford: Oxford University Press, 2006).

Pinborg, Jan. "Die Aristoteles-Quaestionen des Magister Nicolaus von Amsterdam," *Classica et Mediaevalia* 25 (1964) 244–62.
  Die Entwicklung der Sprachtheorie im Mittelalter (Münster: Aschendorff, 1967).
  Logik und Semantik im Mittelalter: ein Überblick (Stuttgart-Bad Cannstatt: Frommann-Holzboog, 1972).
  "Magister Abstractionum," *Cahiers de l'Institut du Moyen Age Grec et Latin* 18 (1976) 1–4.
  Medieval Semantics, Selected Studies on Medieval Logic and Grammar, ed. S. Ebbesen (London: Variorum, 1984).
  "A New MS of the Questions on the *Posteriora analytica* Attributed to Petrus de Alvernia," *Cahiers de l'Institut du Moyen Age Grec et Latin* 10 (1973) 48–62.
  "A Note on Some Theoretical Concepts of Logic and Grammar," *Revue internationale de philosophie* 21 (1975) 286–96.

"Radulphus Brito on Universals," *Cahiers de l'Institut du Moyen Age Grec et Latin* 35 (1980) 60–123.

"Speculative Grammar," in N. Kretzmann *et al.* (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 254–69.

"Walter Burleigh on the Meaning of Proposition," *Classica et Mediaevalia* 28 (1969) 394–404.

Pinborg, Jan and Sten Ebbesen. "Thirteenth-Century Notes on William of Sherwood's 'Treatise on Properties of Terms': An Edition of *Anonymi dubitationes et notabilia circa Guilelmi de Shyreswode introductionum logicalium Tractatum V* from MS Worcester Cath. Q.13," *Cahiers de l'Institut du Moyen Age Grec et Latin* 47 (1984) 103–41.

Pines, Shlomo. "La loi naturelle et la société: la doctrine politico-théologique d'Ibn Zur'a," in U. Heyd (ed.) *Studies in Islamic History and Civilization* (Jerusalem: Magnes Press, 1961) 154–90.

"Les précurseurs musulmans de la theorie d'l'impetus," *Archeion* (*Archivio di storia della scienza*) 21 (1938) 298–306.

Scholasticism after Thomas Aquinas and the Teachings of Hasdai Crescas and his Predecessors (Jerusalem: Israel Academy of Sciences and Humanities, 1967).

Studies in Abu'l-Barakat al-Baghdadi: Physics and Metaphysics, in The Collected Works of Shlomo Pines, vol. I (Leiden: Brill, 1979).

Pines, Shlomo and Yirmiyahu Yovel (eds.). *Maimonides and Philosophy* (Dordrecht: Nijhoff, 1985).

Pingree, David. *The Thousands of Abu Mashar* (London: Warburg Institute, 1968).

Pini, Giorgio. "Being and Creation in Giles of Rome," in J. Aertsen *et al.* (eds.) *Nach der Verurteilung von 1277: Philosophie und Theologie an der Universität von Paris im letzten Viertel des 13. Jahrhunderts: Studien und Texte* (Berlin: De Gruyter, 2001) 390–403.

Categories and Logic in Duns Scotus: An Interpretation of Aristotle's Categories in the Late Thirteenth Century (Leiden: Brill, 2002).

"Giles of Rome," in C. Schabel (ed.) *Theological Quodlibeta in the Middle Ages: The Thirteenth Century* (Leiden: Brill, 2006) 233–86.

"Una lettura scotista della *Metafisica* di Aristotele: l'*expositio in libros Metaphysicorum* di Antonio Andrea," *Documenti e studi sulla tradizione filosofica medievale* 2 (1991) 529–86.

"Scotistic Aristotelianism: Antonius Andreas' *Expositio* and *Quaestiones* on the *Metaphysics*," in L. Sileo (ed.) *Via Scoti: Methodologica ad mentem Joannis Duns Scoti* (Rome: Edizioni Antonianum, 1995) I: 375–89.

"Univocity in Scotus' *Quaestiones super Metaphysicam*: The Solution to a Riddle," *Medioevo* 30 (2005) 69–110.

Pinziani, Roberto. *The Logical Grammar of Abelard* (Dordrecht: Kluwer, 2003).

Piron, Sylvain. "Franciscan *Quodlibeta* in Southern *Studia* and at Paris, 1280–1300," in C. Schabel (ed.) *Theological Quodlibeta in the Middle Ages: The Thirteenth Century* (Leiden: Brill, 2006) 403–38.

Nicolas Oresme: Violence, langage et raison politique (Florence: European University Institute, 1997).

"Les œuvres perdues d'Olivi: essai de reconstitution," *Archivum Franciscanum Historicum* 91 (1998) 357–94.

"Parcours d'un intellectuel franciscain. D'une théologie vers une pensée sociale: l'œuvre de Pierre de Jean Olivi (ca. 1248–1298) et son traité 'De contractibus'" (Ph.D. dissertation: École des Hautes Études en Sciences Sociales, 1999).

Pironet, Fabienne. "Sophismata," in E. Zalta (ed.) *The Stanford Encyclopedia of Philosophy* (Spring 2006 edition): http://plato.stanford.edu/archives/win2002/entries/sophismata/.

"'The Sophismata asinina' of William Heytesbury," in S. Read (ed.) *Sophisms in Medieval Logic and Grammar: Acts of the Ninth European Symposium for Medieval Logic and Semantics* (Dordrecht: Kluwer, 1993) 128–43.

The Tradition of Medieval Logic and Speculative Grammar from Anselm to the End of the Seventeenth Century. A Bibliography (1977–1994) (Turnhout: Brepols, 1997).

Pirzio, Paola. "Le prospettive filosofiche del trattato di Enrico di Langenstein (1325–1397) 'De habitudine causarum'," *Rivista critica di storia della filosofia* 24 (1969) 363–73.

Plantinga, Alvin. *Does God Have a Nature?* (Milwaukee, WI: Marquette University Press, 1980).

The Nature of Necessity (Oxford: Oxford University Press, 1974).

Platti, Emilio. *Yaḥyā Ibn ʿAdī, théologien chrétien et philosophe arabe: sa théologie de l'Incarnation* (Leuven: Departement Orientalistiek, 1983).

Platzeck, Erhard-Wolfram. *Raimund Lull. Sein Leben – Seine Werke. Die Grundlagen seines Denkens (Prinzipienlehre)* (Rome: Editiones Franciscanae, 1962–64).

Plevano, Roberto. "Richard Rufus of Cornwall and Geoffrey of Aspall: Two Questions on the Instant of Change," *Medioevo* 19 (1993) 167–232.

Plotnik, Kenneth. *Hervaeus Natalis OP and the Controversies over the Real Presence and Transubstantiation* (Munich: Schöningh, 1970).

Pluta, Olaf. "Die Diskussion der Frage nach der Unsterblichkeit bei Nikolaus Oresme und Peter von Ailly," *Studia Mediewistyczne* 27 (1990) 115–30.

"Materialism in the Philosophy of Mind. Nicholas of Amsterdam's *Quaestiones* De anima," in P. J. J. M. Bakker and J. M. M. H. Thijssen (eds.) *Mind, Cognition and Representation: The Tradition of Commentaries on Aristotle's* De anima (Aldershot: Ashgate, 2007) 109–26.

(ed.). *Nicholas of Amsterdam: A Dutch Master of Arts in Fifteenth-Century Germany* (Amsterdam: Grüner 2008).

Pobst, Phyllis. "Visitation of Religious and Clergy by Archbishop Eudes Rigaud of Rouen," in T. Burman *et al.* (eds.) *Religion, Text, and Society in Medieval Spain and Northern Europe. Essays in Honor of J.N. Hillgarth* (Toronto: Pontifical Institute of Mediaeval Studies, 2002) 223–49.

Podskalsky, Gerhard. *Theologie und Philosophie in Byzanz* (Munich: Beck, 1977).

Poonawala, Ismail. *Biobibliography of Ismāʿīlī Literature* (Malibu, CA: Undena Publications, 1977).

Pope, Stephen J. (ed.). *The Ethics of Aquinas* (Washington, DC: Georgetown University Press, 2002).

"Overview of the Ethics of Thomas Aquinas," in S. J. Pope (ed.) *The Ethics of Aquinas* (Washington, DC: Georgetown University Press, 2002) 30–53.

Popkin, Richard. *The History of Scepticism: From Savonarola to Bayle*, rev. edn (Oxford: Oxford University Press, 2003).

Porebski, Stanisław. "La question de Bernard Lombardi concernant la différence réelle entre l'essence et l'existence," *Mediaevalia Philosophica Polonorum* 17 (1973) 157–85.

Porro, Pasquale. "An Historiographical Image of Henry of Ghent," in W. Vanhamel (ed.) *Henry of Ghent. Proceedings of the International Colloquium on the Occasion of the 700th Anniversary of his Death (1293)* (Leuven: Leuven University Press, 1996) 373–403.

"Possibilità e *Esse essentiae* in Enrico di Gand," in W. Vanhamel (ed.) *Henry of Ghent. Proceedings of the International Colloquium on the Occasion of the 700th Anniversary of his Death (1293)* (Leuven: Leuven University Press, 1996) 211–53.

Porter, Jean. *Nature as Reason: A Thomistic Theory of the Natural Law* (Grand Rapids, MI: Eerdmans, 2005).

"Responsibility, Passion, and Sin: A Reassessment of Abelard's *Ethics*," *Journal of Religious Ethics* 28 (2000) 367–94.

Post, Gaines. *Studies in Medieval Legal Thought: Public Law and the State 1100–1322* (Princeton, NJ: Princeton University Press, 1964).

Potestà, Gian Luca. *Storia ed escatologia in Ubertino da Casale* (Milan: Vita e Pensiero, 1980).

Pounds, Norman. *An Economic History of Medieval Europe*, 2nd edn (London: Longman, 1994).

Pourjavady, Reza and Sabine Schmidtke. *A Jewish Philosopher of Baghdad* (Leiden: Brill, 2006).

Powicke, F. M. *Stephen Langton, Being the Ford Lectures Delivered in the University of Oxford in Hilary term 1927* (Oxford: Clarendon Press, 1928; repr. New York: Barnes and Noble, 1965).

Pozzi, Lorenzo. *La coerenza logica nella teoria medioevale delle obbligazioni (con l'edizione del trattato "Obligationes" di Guglielmo Buser)* (Parma: Zara, 1990).

Le consequentiae nella logica medievale (Padua: Liviana Editrice, 1978).

Prentice, Robert. "Univocity and Analogy According to Scotus's *Super libros Elenchorum Aristotelis*," *Archives d'histoire doctrinale et littéraire du moyen âge* 35 (1968) 39–64.

Prezioso, Faustino A. "L'attività del soggetto pensente nella gnoseologia di Matteo d'Acquasparta e di Ruggiero Marston," *Antonianum* 25 (1950) 259–326.

L'evoluzione del volontarismo da Duns Scoto a Guglielmo Alnwick (Naples: Libreria scientifica editrice, 1964).

Principe, Walter. *The Theology of the Hypostatic Union in the Early Thirteenth Century* (Toronto: Pontifical Institute of Mediaeval Studies, 1963–75).

Prior, A. N. "The Possibly-True and the Possible," *Mind* 78 (1969) 481–92.

Priori, Domenico and Massimo Balena (eds.). *Atti del II Convegno Internazionale su Francesco d'Appignano* (Appignano del Tronto: Centro studi Francesco d'Appignano, 2004).

Pulcini, Theodore. *Exegesis as Polemical Discourse: Ibn Hazm on Jewish and Christian Scriptures* (New York: Oxford University Press, 1998).

Putallaz, François-Xavier. "La connaissance de soi au moyen âge: Vital du Four," *Collectanea Franciscana* 60 (1990) 507–37.

La connaissance de soi au XIIIe siècle. De Matthieu d'Aquasparta à Thierry de Freiberg (Paris: Vrin, 1991).

Figures franciscaines, de Bonaventure à Duns Scot (Paris: Cerf, 1997).

"Les idées divines dans la censure: le cas Olivi (1248–1298)," *Revue Thomiste* 103 (2003) 411–34.

Insolente liberté: controverses et condamnations au XIIIe siècle (Paris: Cerf, 1995).

Putallaz, François-Xavier and Ruedi Imbach. *Profession, philosophe: Siger de Brabant* (Paris: Cerf, 1997).

Putnam, C. "Ulrich of Strasbourg and the Aristotelian Causes," in J. K. Ryan (ed.) *Studies in Philosophy and the History of Philosophy* (Washington, DC: Catholic University of America Press, 1961) I: 139–59.

Putnam, Hilary. "On Negative Theology," *Faith and Philosophy* 14 (1997) 407–22.

Quentin, Albrecht. *Naturkenntness und Naturanschauungen bei Wilhelm von Auvergne* (Hildescheim: Gertenberg, 1976).

Quillet, Jeannine (ed.). *Autour de Nicole Oresme* (Paris: Vrin, 1990).

La philosophie politique de Marsile de Padoue (Paris: Vrin, 1970).

Quinn, John. *The Historical Constitution of St. Bonventure's Philosophy* (Toronto: Pontifical Institute of Mediaeval Studies, 1973).

Quinto, Riccardo. "High of St.-Cher's Use of Stephen Langton," in S. Ebbesen and R. L. Friedman (eds.) *Medieval Analyses in Language and Cognition* (Copenhagen: Reitzels, 1999) 281–300.

Raciti, Gaetano. "L'autore del *De spiritu et anima*," *Rivista di filosofia neoscolastica* 53 (1961) 385–401.

"Isaac de l'Étoile," in M. Viller, G. Raciti, and A. Solignac (eds.) *Dictionnaire de spiritualité* (Paris: Beauchesne, 1971) VII: 2011–38.

Radding, Charles. *The Origins of Medieval Jurisprudence: Pavia and Bologna, 850–1150* (New Haven, CT: Yale University Press, 1988).

Raedts, Peter. *Richard Rufus of Cornwall and the Tradition of Oxford Theology* (Oxford: Oxford Historical Monographs, 1987).

Raine, James. *Historiae Dunelmensis scriptores tres: Gaufridus de Coldingham, Robertus de Graystanes, et Willielmus de Chambre* (London: J.B. Nichols and Son, 1839).

Ramsey, Paul. *The Just War: Force and Political Responsibility* (New York: Scribner, 1968).

Rand, E. K. *Johannes Scottus* (Munich: Beck, 1906).

Ranft, Patricia. *The Theology of Work: Peter Damian and the Medieval Religious Renewal Movement* (New York: Palgrave Macmillan, 2006).

Rashdall, Hastings. *The Universities of Europe in the Middle Ages*, rev. edn by F. M. Powicke and A. B. Emden (Oxford: Clarendon Press, 1936).

Rashed, Roshdi. *Géométrie et dioptrique au Xe siècle: Ibn Sahl, al-Qūhī et Ibn al-Haytham* (Paris: Les Belles Lettres, 1993).

"Al-Kindī's Commentary on Archimedes's 'The Measurement of the Circle'," *Arabic Sciences and Philosophy* 3 (1993) 7–53.

Les mathématiques infinitésimales du IXe au XIe siècle (London: Al-Furq-an Islamic Heritage Foundation, 1993–2006).

Rauschenbach, Sina. *Josef Albo: Jüdische Philosophie und christliche Kontroverstheologie in der Frühen Neuzeit* (Leiden: Brill, 2002).

Ravitzky, Aviezer. "Samuel Ibn Tibbon and the Esoteric Character of The Guide of the Perplexed," *Association of Jewish Studies Review* 6 (1981) 87–123.

Raynaud de Lage, Guy. *Alain de Lille, poète du XIIe siècle* (Montréal: Institut d'études médiévales, 1951).

Read, Stephen. "How Is Material Supposition Possible?," *Medieval Philosophy and Theology* 8 (1999) 1–20.

"The Liar Paradox from John Buridan back to Thomas Bradwardine," *Vivarium* 40 (2002) 189–218.

"Medieval Theories: Properties of Terms," in E. Zalta (ed.) *The Stanford Encyclopedia of Philosophy* (Spring 2006 edition): http://plato.stanford.edu/archives/spr2006/entries/medieval-terms/.

(ed.). *Sophisms in Medieval Logic and Grammar: Acts of the Ninth European Symposium for Medieval Logic and Semantics* (Dordrecht: Kluwer, 1993).

"Thomas of Cleves and Collective Supposition," *Vivarium* 29 (1991) 50–84.

Reeves, Marjorie. *The Influence of Prophecy in the Later Middle Ages: A Study in Joachimism* (Oxford: Clarendon, 1969; repr. Notre Dame, IN: University of Notre Dame Press, 1993).

Reichberg, Gregory M., Henrik Syse, and Endre Begby (eds.). *The Ethics of War: Classic and Contemporary Readings* (Indianapolis, IN: Wiley-Blackwell, 2006).

Reilly, James. "Thomas of York on the Efficacy of Secondary Causes," *Mediaeval Studies* 15 (1953) 225–33.

Reina, Maria. "Comprehensio veritatis: una questione di Marsilio di Inghen sulla metafisica," *Textes et Études du Moyen Age* 1 (1994) 283–335.

Hoc Hic et Nunc: Buridano, Marsilio di Inghen e la conoscenza del singolare (Florence: Olschki, 2002).

Reisman, David C. "Al-Fārābī and the Philosophical Curriculum," in P. Adamson and R. Taylor (eds.) *The Cambridge Companion to Arabic Philosophy* (Cambridge: Cambridge University Press, 2005) 52–71.

The Making of the Avicennan Tradition: The Transmission, Contents, and Structure of Ibn Sīnā's al-Mubāḥathāt (The Discussions) (Leiden: Brill, 2002).

Reisman, David C. and Ahmed H. al-Rahīm (eds.). *Before and after Avicenna: Proceedings of the First Conference of the Avicenna Study Group* (Leiden: Brill, 2003).

Remnant, Peter. "Peter Damian: Could God Change the Past?," *Canadian Journal of Philosophy* 8 (1978) 259–68.

Renan, Ernest. *Averroès et l'averroïsme* (*Œuvres complètes*, vol. III) (Paris: Calmann-Lévy, 1949).

Rescher, Nicholas. *The Development of Arabic Logic* (Pittsburgh, PA: University of Pittsburgh Press, 1964).

"A New Approach to Aristotle's Apodeictic Syllogisms," in N. Rescher (ed.) *Studies in Modality* (Oxford: Blackwell, 1974) 3–15.

Resnick, Irven M. *Divine Power and Possibility in St. Peter Damian's* De divina omnipotentia (Leiden: Brill, 1992).

"Odo of Tournai, the Phoenix, and the Problem of Universals," *Journal of the History of Philosophy* 35 (1997) 355–74.

Resnick, Irven M. and Kenneth Kitchell. *Albert the Great: A Selectively Annotated Bibliography (1900–2000)* (Tempe: Arizona Center for Medieval and Renaissance Studies, 2004).

Reuter, Timothy. *Wortkonkordanz zum Decretum Gratiani* (Munich: Monumenta Germaniae Historica, 1990).

Reynolds, Gabriel Said. "The Rise and Fall of Qadi ʿAbd al-Jabbar," *International Journal of Middle East Studies* 37 (2005) 3–18.

Reynolds, Philip. *Marriage in the Western Church: The Christianization of Marriage during the Patristic and Early Medieval Periods* (Leiden: Brill, 1994).

"Properties, Causality, and Epistemic Optimism in Thomas Aquinas," *Recherches de théologie et philosophie médiévales* 68 (2001) 270–309.

Ribémont, Bernard. *Les origines des encyclopédies médiévales d'Isidore de Séville aux Carolingiens* (Paris: Champion, 2001).

Richards, Earl Jeffrey (ed.). *Reinterpreting Christine de Pizan* (Athens: University of Georgia Press, 1992).

Riché, Pierre. *Abbon de Fleury: un moine savant et combatif (vers 950–1004)* (Turnhout: Brepols, 2004).

Écoles et enseignement dans le Haut Moyen Âge: fin du Vᵉ siècle – milieu du XIᵉ siècle (Paris: Picard, 1989).

Education and Culture in the Barbarian West, Sixth through Eighth Centuries, tr. J. J. Contreni (Columbia: University of South Carolina Press, 1976).

Richir, Luc. *Marguerite Porete: une âme au travail de l'Un* (Brussels: Ousia, 2002).

Richter, Gerhard. *Theodoros Dukas Laskaris, der natürliche Zusammenhang: ein Zeugnis vom Stand der byzantinischen Philosophie in der Mitte des 13. Jahrhundert* (Amsterdam: Hakkert, 1989).

Richter, Vladimir. "Handschriftliches zu Crathorn," *Zeitschrift für katholische Theologie* 94 (1972) 445–9.

Ritter, Gerhard. *Studien zur Spätscholastik I: Marsilius von Inghen und die okkamistische Schule in Deutschland* (Heidelberg: Carl Winter Universitätsverlag, 1921).

Rius y Serra, José (ed.). *San Raimundo de Penyafort: Diplomatario* (Barcelona: López Robert, 1954).

Rizvi, Sajjad H. "Mysticism and Philosophy: Ibn ʿArabī and Mullā Ṣadrā," in P. Adamson and R. Taylor (eds.) *The Cambridge Companion to Arabic Philosophy* (Cambridge: Cambridge University Press, 2005) 224–46.

Roberts, Phyllis B. *Stephanus de Lingua Tonante: Studies on the Sermons of Stephen Langton* (Toronto: Pontifical Institute of Mediaeval Studies, 1968).

Robertson, D. W. "A Note on the Classical Origins of 'Circumstances' in the Medieval Confessional," *Studies in Philology* 43 (1946) 6–14.

Robiglio, Andrea. *L'impossibile volere. Tommaso d'Aquino, i tomisti e la volontà* (Milan: Vita e Pensiero, 2002).

"'Neapolitan Gold': A Note on William of Tocco and Peter of Ireland," *Bulletin de philosophie médiévale* 44 (2002) 107–11.

Robinson, James T. "Hasdai Crescas and anti-Aristotelianism," in D. H. Frank and O. Leaman (eds.) *Cambridge Companion to Medieval Jewish Philosophy* (Cambridge: Cambridge University Press, 2003) 391–413.

"The Ibn Tibbon Family: A Dynasty of Translators in Medieval Provence," in J. Harris (ed.) *Be'erot Yitzhak: Studies in Memory of Isadore Twersky* (Cambridge, MA: Harvard University Press, 2005) 193–224.

"Samuel Ibn Tibbon's Commentary on Ecclesiastes and the Philosopher's Prooemium," in I. Twersky and J. Harris (eds.) *Studies in Medieval Jewish History and Literature* (Cambridge, MA: Harvard University Press, 2000) III: 83–146.

Robson, John. *Wyclif and the Oxford Schools* (Cambridge: Cambridge University Press, 1961).

Rocca, Gregory. "The Distinction between *res significata* and *modus significandi* in Aquinas' Theological Epistemology," *The Thomist* 55 (1990) 173–97.

Rochais, Henri. "Ipsa philosophia Christus," *Mediaeval Studies* 13 (1951) 244–7.

Rode, Christian. *Franciscus de Prato: Facetten seiner Philosophie im Blick auf Hervaeus Natalis und Wilhelm Ockham* (Stuttgart: Steiner, 2004).

Roensch, Frederick. *Early Thomistic School* (Dubuque, IA: Priory Press, 1964).

Roest, Bert. *A History of Franciscan Education (c. 1210–1517)* (Leiden: Brill, 2000).

Rohls, Jan. *Wilhelm von Auvergne und der mittelalterliche Aristotelismus* (Munich: Kaiser, 1980).

Rohmer, Jean. "La théorie de l'abstraction dans l'école franciscaine de Alexandre de Hales à Jean Peckham," *Archives d'histoire doctrinale et littéraire du moyen âge* 3 (1928) 105–84.

Roland-Gosselin, M.-D. *Le "De ente et essentia" de s. Thomas d'Aquin* (Paris: Vrin, 1926; repr. 1948).

Roos, Heinrich. "Die Kontroverse zwischen Bartholomaeus von Brügge und Radulphus Brito über die Frage 'Utrum genus possit salvari in unica specie'," in T. W. Köhler (ed.) *Sapientiae procerum amore: mélanges médiévistes offerts à Dom Jean-Pierre Müller* (Rome: Editrice Anselmiana, 1974) 323–42.

Die Modi significandi *des Martinus de Dacia* (Copenhagen: Frost-Hansen, 1952).

"Zwei Quaestionum des Radulphus Brito über das *Significatum generis*," *Cahiers de l'Institut du Moyen Age Grec et Latin* 24 (1978) 55–64.

Rosemann, Philipp W. "Ibn Rushd: A Catalogue of Editions and Scholarly Writings from 1821 onwards," *Bulletin de philosophie médiévale* 30 (1988) 153–215.

Peter Lombard (Oxford: Oxford University Press, 2004).

The Story of a Great Medieval Book: Peter Lombard's Sentences (Peterborough, ON: Broadview Press, 2007).

Rosenthal, Erwin I. J. (ed.). *Saadya Studies* (Manchester: Manchester University Press, 1943; repr. New York: Arno Press, 1980).

"The Theory of the Power-State: Ibn Khaldun's Study of Civilization," in E. Rosenthal (ed.) *Political Thought in Medieval Islam* (Cambridge: Cambridge University Press, 1956).

Rosenthal, Franz. "Abu Zayd al-Balkhi on Politics," in C. E. Bosworth *et al.* (eds.) *The Islamic World, from Classical to Modern Times: Essays in Honor of Bernard Lewis* (Princeton, NJ: Princeton University Press, 1989) 287–301.

Aḥmad b. aṭ-Ṭayyib as-Sarakhsī (New Haven, CT: American Oriental Society, 1943).

Das Fortleben der Antike im Islam (Zürich: Artemis Verlag, 1965).

Greek Philosophy in the Arab World (Aldershot: Ashgate, 1990).

"On the Knowledge of Plato's Philosophy in the Islamic World," *Islamic Culture* 14 (1940) 387–422; 15 (1941) 396–8.

"State and Religion according to Abū l-Ḥasan al-ʿĀmirī," *Islamic Quarterly* 3 (1956) 42–52.

Rosier-Catach, Irène. "Abélard et les grammairiens: sur la définition du verbe et la notion d'inhérence," in P. Lardet (ed.) *La tradition vive: Mélanges d'histoire des textes en l'honneur de Louis Holtz* (Turnhout: Brepols, 2003) 143–59.

"Abélard et les grammairiens: sur le verbe substantif et la prédication," *Vivarium* 41 (2003) 176–248.

"Les acceptions du terme 'substantia' chez Pierre Helie," in J. Jolivet and A. de Libera (eds.) *Gilbert de Poitiers et ses contemporains* (Naples: Bibliopolis, 1987) 299–324.

"The *Glosulae in Priscianum* and its Tradition," in N. McLelland and A. Linn (eds.) *Papers in Memory of Vivien Law* (Münster: Nodus Publikationen, 2004) 81–99.

(ed.). *Les Glosulae super Priscianum, Guillaume de Champeaux, Abelard: arts du langage et théologie aux confins des XIᵉ/XIIᵉ siècles* (Turnhout: Brepols, forthcoming).

"La grammaire dans le 'Guide de l'étudiant'," in C. Lafleur and J. Carrier (eds.) *L'enseignement de la philosophie au XIIIᵉ siècle. Autour du "Guide de l'étudiant" du ms. Ripoll 109* (Turnhout: Brepols, 1997) 255–79.

La grammaire spéculative des Modistes (Lille: Presses universitaires de Lille, 1983).

"Modisme, pré-modisme, proto-modisme, vers une définition modulaire," in S. Ebbesen and R. L. Friedman (eds.) *Medieval Analyses in Language and Cognition* (Copenhagen: Royal Academy, 1999) 45–81.

"O Magister . . . : Grammaticalité et intelligibilité selon un sophisme du XIIIᵉ siècle," *Cahiers de l'Institut du Moyen Age Grec et Latin* 56 (1988) 1–102.

La parole comme acte: sur la grammaire et la sémantique au XIIIᵉ siècle (Paris: Vrin, 1994).

La parole efficace: signe, rituel, sacré (Paris: Seuil, 2004).

"Priscien, Boèce, les *Glosulae in Priscianum*, Abélard: les enjeux des discussions autour de la notion de consignification," *Histoire Epistémologie Langage* 25 (2003) 55–84.

"*Res significata et modus significandi:* Les implications d'une distinction médiévale," in S. Ebbesen (ed.) *Sprachtheorien in Spätantike und Mittelalter* (Tübingen: Narr, 1995) 135–68.

"Roger Bacon: Grammar," in J. Hackett (ed.) *Roger Bacon and the Sciences: Commemorative Essays 1996* (Leiden: Brill, 1997) 67–102.

"Les sophismes grammaticaux au XIIIᵉ siècle," *Medioevo* 17 (1991) 175–230.

Rosier-Catach, Irène and Sten Ebbesen. "Petrus de Alvernia + Boethius de Dacia: Syllogizantem ponendum est terminos," *Cahiers de l'Institut du Moyen Age Grec et Latin* 75 (2004) 161–218.

Ross, James F. *Philosophical Theory* (Indianapolis, IN: Bobbs-Merrill, 1969).

Rossi, Pietro. "Robert Grosseteste and the Object of Scientific Knowledge," in J. McEvoy (ed.) *Robert Grosseteste: New Perspectives on his Thought and Scholarship* (Turnhout: Brepols, 1995) 53–76.

Rossini, M. "Quod coexsistit exsistit: Alessandro di Alessandria e i futuri contingenti," in L. Sileo (ed.) *Via Scoti: methodologica ad mentem Ioannis Duns Scoti* (Rome: Edizioni Antonianum, 1995) 1049–63.

Rossmann, Heribert. *Die Hierarchie der Welt: Gestalt und System des Franz von Meyronnes OFM mit besonderer Berücksichtigung seiner Schöpfungslehre* (Werl: Coelde, 1972).

Roth, Bartholomaeus. *Franz von Mayronis, O.F.M. Sein Leben, seine Werke, seine Lehre vom Formalunterschied in Gott* (Werl-in-Westfalen: Franziskus-Druckerei, 1936).

Roueché, Mossman. "Byzantine Philosophical Texts of the Seventh Century," *Jahrbuch der Österreichischen Byzantinistik* 23 (1974) 61–76.

"Did Medical Students Study Philosophy in Alexandria?," *Bulletin of the Institute of Classical Studies* 43 (1999) 153–69.

Rouse, Richard and Mary Rouse. *Preachers, Florilegia and Sermons: Studies on the "Manipulus florum" of Thomas of Ireland* (Toronto: Pontifical Institute of Mediaeval Studies, 1979).

Rubert Candáu, José Maria. *La filosofia del siglo XIV a través de G. Rubió* (Madrid: Ediciones Verdad y Vida, 1952).

Rubio, Mercedes. *Aquinas and Maimonides on the Possibility of the Knowledge of God: An Examination of the* Quaestio de attributis (Dordrecht: Springer, 2007).

Rucquoi, A. "Gundisalvus ou Dominicus Gundisalvi," *Bulletin de philosophie médiévale* 41 (1999) 85–106.

Rudavsky, T. M. "Conflicting Motifs in Ibn Gabirol's Discussion of Matter and Evil," *New Scholasticism* 52 (1978) 54–71.

"Gersonides," in E. Zalta (ed.) *The Stanford Encyclopaedia of Philosophy* (Spring 2007 edition): http://plato.stanford.edu/archives/spr2007/entries/gersonides.

"The Theory of Time in Maimonides and Crescas," *Maimonidean Studies* 1 (1990) 143–62.

Time Matters: Time, Creation and Cosmology in Medieval Jewish Philosophy (Albany: State University of New York Press, 2000).

Rudnick, Ulrich. *Das System des Johannes Scottus Eriugena: eine theologisch-philosophische Studie zu seinem Werk* (Frankfurt: Lang, 1990).

Rudolph, Conrad. *First, I Find the Center Point: Reading the Text of Hugh of Saint Victor's* The Mystic Ark (Philadelphia, PA: American Philosophical Society, 2004).

Rudolph, Ulrich. *Al-Māturīdī und die sunnitische Theologie in Samurkand* (Leiden: Brill, 1996).

Ruello, Francis. "Les fondements de la liberté humaine selon Jacques de Viterbe O.E.S.A. Disputatio 1ª de Quolibet, q. VII (1293)," *Augustiniana* 24 (1974) 283–347; 25 (1975) 114–42.

"Paul de Venise théologien 'averroiste'?," in J. Jolivet (ed.) *Multiple Averroès* (Paris: Vrin, 1978) 257–72.

La pensée de Jean de Ripa OFM (XIVe siècle), immensité divine et connaissance théologique (Fribourg: Éditions universitaires, 1990).

"Le projet théologique de Jean de Ripa O.F.M.," *Traditio* 49 (1994) 127–70.

Ruffing, Janet (ed.). *Mysticism and Social Transformation* (Syracuse, NY: Syracuse University Press, 2001).

Rupp, Teresa. "Damnation, Individual, and Community in Remigio dei Girolami's *De bono communi*," *History of Political Thought* 21 (2000) 217–36.

Rusconi, Roberto. "De la prédication à la confession: transmission et contrôle de modèles de comportement au XIIIe siècle," in *Faire croire: modalités de la diffusion et de la réception des messages religieux du XIIe au XVe siècle* (Rome: École française de Rome, 1981) 67–85.

Russell, Bertrand. *A History of Western Philosophy* (London: Allen and Unwin, 1946).

Russell, Frederick H. "The Historical Perspective of the Bishops' Pastoral Letter: The View of One Medievalist," in C. Reid, Jr. (ed.) *Peace in a Nuclear Age: The Bishops' Pastoral Letter in Perspective* (Washington, DC: Catholic University of America Press, 1986) 86–97.

The Just War in the Middle Ages (Cambridge: Cambridge University Press, 1975).

"Love and Hate in Warfare: The Contribution of Saint Augustine," *Nottingham Medieval Studies* 31 (1987) 108–24.

"Persuading the Donatists: Augustine's Coercion by Words," in W. Klingshirn and M. Vessey (eds.) *The Limits of Ancient Christianity. Essays on Late Antique Thought and Culture in Honor of R. A. Markus* (Ann Arbor: University of Michigan Press, 1999) 115–30.

Russell, Norman. "Prochoros Cydones and the Fourteenth-Century Understanding of Ortho-doxy," in A. Louth and A. Casiday (eds.) *Byzantine Orthodoxies* (Aldershot: Ashgate, 2006) 75–92.

Ryan, Christopher J. "Man's Free Will in the Works of Siger of Brabant," *Mediaeval Studies* 45 (1983) 155–99.

Ryan, John K. and Bernardino M. Bonansea. "John Duns Scotus, 1265–1965," in J. K. Ryan and B. M. Bonansea (eds.) *Studies in Philosophy and the History of Philosophy*, vol. III (Washington, DC: Catholic University of America Press, 1965).

Ryan, Magnus. "Bartolus of Sassoferrato and Free Cities," *Transactions of the Royal Historical Society* 10 (2000) 65–89.

Saak, Eric. *High Way to Heaven: The Augustinian Platform between Reform and Reformation, 1292–1524* (Leiden: Brill, 2002).

Saarinen, Risto. *Weakness of the Will in Medieval Thought from Augustine to Buridan* (Leiden: Brill, 1994).

Sabbadini, Remigio. *Guariniana*, ed. M. Sancipriano (Genoa: Tipografia del R. Istituto Sordo-Muti, 1891, 1896; repr. Turin: Bottega d'Erasmo, 1964).

Sabra, A. I. "Form in Ibn al-Haytham's Theory of Vision," *Zeitschrift für Geschichte der Arabisch-Isalmischen Wissenschaften* 5 (1980) 115–40.

  "*Kalām* Atomism as an Alternative Philosophy to Hellenizing *falsafa*," in J. Montgomery (ed.) *Arabic Theology, Arabic Philosophy: From the Many to the One: Essays in Celebration of Richard M. Frank* (Leuven: Peeters, 2006) 199–272.

  Optics, Astronomy and Logic: Studies in Arabic Science and Philosophy (Aldershot: Variorum, 1994).

  "Psychology versus Mathematics: Ptolemy and Alhazen on the Moon Illusion," in E. Grant and J. Murdoch (eds.) *Mathematics and its Applications in Science and Natural Philosophy in the Middle Ages* (Cambridge: Cambridge University Press, 1987) 217–47.

  "Thābit ibn Qurra on the Infinite and Other Puzzles: Edition and Translation of his Discus-sions with Ibn Usayyid," *Zeitschrift für Geschichte der arabisch-islamischen Wissenschaften* 11 (1997) 1–33.

Saco Alarçón, César. "Nicolás de Ockham OFM († c. 1320): Vida y obras," *Antonianum* 53 (1978) 493–573.

Saʿdi, Lutfi M. "A Bio-Bibliographical Study of Hunayn ibn Ishaq al-Ibadi," *Bulletin of the Institute of the History of Medicine* 2 (1934) 409–46.

Saffrey, H. D. "Nouveau liens objectifs entre le pseudo-Denys et Proclus," in *Recherches sur le Néoplatonisme après Plotin* (Paris: Vrin, 1990) 227–48.

Saint Pierre, J. A. "The Theological Thought of William of Auxerre: An Introductory Bibli-ography," *Recherches de théologie ancienne et médiévale* 33 (1966) 147–55.

Salleras i Carolà, Marcel. "Bibliografia lulliana (1974–1984)," *Randa* 19 (1986) 153–98.

Salman, Dominique. "Algazel et les latins," *Archives d'histoire doctrinale et littéraire du moyen âge* 10 (1936) 103–27.

Salman, H. D. "Jean de la Rochelle et l'averroïsme latin," *Archives d'histoire doctrinale et littéraire du moyen âge* 16 (1947–8) 133–42.

Salmon, Nathan. *Reference and Essence* (Princeton, NJ: Princeton University Press, 1981).

Samir, Khalil and Jørgen S. Nielsen. *Christian Arabic Apologetics during the Abbasid Period, 750–1258* (Leiden: Brill, 1994).

Samuelson, Norbert. "Causation and Choice in the Philosophy of ibn Daud," in *The Solomon Goldman Lectures*, vol. II (Chicago: Spertus College, 1979).

  "Gersonides' Account of God's Knowledge of Particulars," *Journal of the History of Philosophy* 10 (1972) 399–416.

San Cristóbal-Sebastián, Antonio. *Controversias acerca de la voluntad desde 1270 a 1300: estudio histórico-doctrinal* (Madrid: Editorial y librería co., 1958).

Sanford, Eva Matthews. "Honorius, Presbyter and Scholasticus," *Speculum* 23 (1948) 397–425.

Santi, Francesco. *Arnau de Vilanova: L'obra espiritual* (Valencia: Disputacio provincial de Valencia, 1986).

Santos-Noya, Manuel. *Die Sünden und Gnadenlehre des Gregors von Rimini* (Frankfurt: Lang, 1990).

Sarnowsky, Jürgen. *Die aristotelisch-scholastische Theorie der Bewegung: Studien zum Kommentar Alberts von Sachsen zur Physik des Aristoteles* (Münster: Aschendorff, 1989).

Sayers, Jane. *Innocent III: Leader of Europe, 1198–1216* (London: Longman, 1994).

Sbaraglia, Giovanni Giacinto (ed.). *Bullarium Franciscanum Romanorum Pontificum: Constitutiones, epistolas, ac diplomata* (Rome, 1759–68; repr. Santa Maria degli Angeli: Edizioni Porziuncola, 1983).

Sbath, Paul. *Vingt traités philosophiques et apologétiques d'auteurs arabes chrétiens du IXe au XIVe siècle* (Cairo: Friedrich, 1929).

Schabel, Chris. "Carmelite Quodlibeta," in C. Schabel (ed.) *Theological Quodlibeta in the Middle Ages: The Fourteenth Century* (Leiden: Brill, 2007) 493–544.

"Early Carmelites Between Giants: Questions on Future Contingents by Gerard of Bologna and Guy Terrena," *Recherches de théologie et philosophie médiévales* 70 (2003) 139–205.

"Francis of Marchia's *Virtus derelicta* and the Context of its Development," *Vivarium* 44 (2006) 60–80.

"Landulphus Caracciolo and a Sequax on Divine Foreknowledge," *Archives d'histoire doctrinale et littéraire du moyen âge* 66 (1999) 299–343.

"Landulph Caracciolo and Gerard Odonis on Predestination: Opposite Attitudes toward Scotus and Auriol," *Wissenschaft und Weisheit* 65 (2002) 62–81.

"*Non aliter novit facienda quam facta*: Gerard Odonis's Questions on Divine Foreknowledge," in P. J. J. M. Bakker (ed.) *Chemins de la pensée médiévale* (Turnhout: Brepols, 2002) 351–77.

"Oxford Franciscans after Ockham: Walter Chatton and Adam Wodeham," in G. R. Evans (ed.) *Mediaeval Commentaries on the* Sentences *of Peter Lombard: Current Research* (Leiden: Brill, 2002) 359–77.

"Parisian Commentaries from Peter Auriol to Gregory of Rimini, and the Problem of Predestination," in G. R. Evans (ed.) *Mediaeval Commentaries on the* Sentences *of Peter Lombard: Current Research* (Leiden: Brill, 2002) 221–65.

"Peter of Candia and the Prelude to the Quarrel at Louvain," *Epitirida of the Cyprus Research Centre* 24 (1998) 87–124.

"Peter Thomae's Question on Divine Foreknowledge from his Sentences Commentary," *Franciscan Studies* 61 (2003) 1–35.

"Questions on Future Contingents by Michael of Massa, OESA," *Augustiniana* 48 (1998) 165–229.

"The *Quodlibeta* of Peter of Auvergne," in C. Schabel (ed.) *Theological Quodlibeta in the Middle Ages: The Fourteenth Century* (Leiden: Brill, 2007) 81–130.

"The *Sentences* Commentary of Gerard Odonis, OFM," *Bulletin de philosophie médiévale* 46 (2004).

"The *Sentences* Commentary of Paul of Perugia, O.Carm., with an Edition of his Question on Divine Foreknowledge," *Recherches de théologie et philosophie médiévales* 72 (2005) 54–112.

Theological Quodlibeta in the Middle Ages (Leiden: Brill, 2006–7).

Theology at Paris 1316–1345: Peter Auriol and the Problem of Divine Foreknowledge and Future Contingents (Aldershot: Ashgate, 2000).

Schabel, Chris and William J. Courtenay. "Augustinian *Quodlibeta* after Giles of Rome," in C. Schabel (ed.) *Theological Quodlibeta in the Middle Ages: The Fourteenth Century* (Leiden: Brill, 2007) 545–68.

Schabel, Chris and Russell L. Friedman. "Trinitarian Theology and Philosophical Issues III: Oxford 1312–1329: Walsingham, Graystanes, Fitzralph, and Rodington," *Cahiers de l'Institut du Moyen Age Grec et Latin* 74 (2003) 39–88.

"Trinitarian Theology and Philosophical Issues IV: English Theology *ca.* 1300: William of Ware and Richard of Bromwich," *Cahiers de l'Institut du Moyen Age Grec et Latin* 75 (2004) 121–60.

"Trinitarian Theology and Philosophical Issues V: Oxford Dominicans: William of Macclesfield and Hugh of Lawton," *Cahiers de l'Institut du Moyen Age Grec et Latin* 76 (2005) 31–44.

Schabel, Chris, Russell L. Friedman, and Irene Balcoyiannopoulou. "Peter of Palude and the Parisian Reaction to Durand of St. Pourcain on Future Contingents," *Archivum Fratrum Praedicatorum* 71 (2001) 183–300.

Schabel, Chris and Marco Rossini. "Time and Eternity among the Early Scotists. Texts on Future Contingents by Alexander of Alexandria, Radulphus Brito, and Hugh of Novocastro," *Documenti e studi sulla tradizione filosofica medievale* 16 (2005) 237–338.

Schacht, Joseph. *The Origins of Muhammadan Jurisprudence*, corrected edn (Oxford: Clarendon Press, 1967).

Schamp, Jacques. *Photios, historien des lettres: la bibliothèque et ses notices biographiques* (Paris: Les Belles Lettres, 1987).

Scheben, H. C. "Prediger und Generalprediger im Dominikanorden des 13. Jahrhunderts," *Archivum Fratrum Praedicatorum* 21 (1961) 112–41.

Schepers, Heinrich. "Holkot contra dicta Crathorn: I. Quellenkritik und biographische Auswertung der Bakkalareatsschriften zweier Oxforder Dominikaner des XIV. Jahrhunderts," *Philosophisches Jahrbuch* 77 (1970) 320–54.

"Holkot contra dicta Crathorn: II. Das 'significatum per propositionem'. Aufbau und Kritik einer nominalistischen Theorie über den Gegenstand des Wissens," *Philosophisches Jahrbuch* 79 (1972) 106–36.

Schmaltz, Tad. *Radical Cartesians* (Cambridge: Cambridge University Press, 2002).

Schmaus, Michael. "Die Gotteslehre des Augustinus Triumphus nach seinem Sentenzenkommentar," in *Aus des Geisteswelt des Mittelalters* (Münster: Aschendorff, 1935) 929–53.

"Guglielmi de Alnwick, O.F.M., doctrina de medio quo Deus cognoscit futura contingentia," *Bogoslovni vestnik* 12 (1932) 201–25.

"Guillelmi de Nottingham, O.F.M., doctrina de aeternitate mundi," *Antonianum* 7 (1932) 139–66.

"Neue Mitteilungen zum Sentenzenkommentar Wilhelms von Nottingham," *Franziskanische Studien* 19 (1932) 195–223.

Schmidtke, Sabine. "Creeds," in J. D. McAuliffe (ed.) *Encyclopaedia of the Qurʾān* (Leiden: Brill, 2001–6).

The Theology of al-ʿAllāma al-Ḥillī (d. 726/1325) (Berlin: Schwarz, 1991).

Schmitt, Charles. *Cicero Scepticus. A Study of the Influence of the Academica in the Renaissance* (The Hague: Nijhoff, 1972).

Schmitt, F. S. "Des Petrus von Aquila *Compendium supra librum sententiarum* aufgefunden," *Recherches de théologie ancienne et médievale* 17 (1950) 267–82.

Schmitter, Amy. "17th and 18th Century Theories of Emotions," in E. Zalta (ed.) *The Stanford Encyclopaedia of Philosophy* (Summer 2006 edition): http://plato.stanford.edu/archives/sum2006/entries/emotions-17th18th.

Schmoll, Polykarp. *Die Busslehre der Frühscholastik: eine dogmengeschichte Untersuchung* (Munich: Lentner, 1909).

Schmugge, Ludwig. *Johannes von Jandun (1285/89–1328): Untersuchungen zur Biographie und Sozialtheorie eines lateinischen Averroisten* (Stuttgart: Hiersemann, 1966).

Schneider, Notker. *Die Kosmologie des Franciscus de Marchia: Texte, Quellen, und Untersuchungen zur Naturphilosophie des 14. Jahrhunderts* (Leiden: Brill, 1991).

Schneider, Richard. *Die Trinitätslehre in den* Quodlibeta *und* Quaestiones disputatae *des Johannes von Neapel OP (†1336)* (Munich: Schöningh, 1972).

Schneyer, Johannes Baptist. *Geschichte der katholischen Predigt* (Freiburg: Seelsorge, 1969).

Schöck, Cornelia. "Aussagenquantifizierung und -modalisierung in der frühen islamischen Theologie," in D. Perler und U. Rudolph (eds.) *Logik und Theologie* (Leiden: Brill, 2005) 19–43.

   Koranexegese, Grammatik und Logik: zum Verhältnis von arabischer und aristotelischer Urteils-, Konsequenz- und Schlusslehre (Leiden: Brill, 2006).

Schöllgen, Werner. *Das Problem der Willensfreiheit bei Heinrich von Gent und Herveus Natalis* (Dusseldorf: Pädagogischer Verlag Schwann, 1927; repr. 1975).

Schönberger, Rolf. *Relation als Vergleich: die Relationstheorie des Johannes Buridan im Kontext seines Denken und der Scholastik* (Leiden: Brill, 1994).

Schönberger, Rolf and Brigitte Kible. *Repertorium edierter Texte des Mittelalters* (Berlin: Akademie Verlag, 1994).

Schork, R. Joseph and John McCall. "A Lament on the Death of John of Legnano," *Studies in the Renaissance* 19 (1972) 180–95.

Schrörs, Heinrich. *Hinkmar, Erzbischof von Reims: sein Leben und seine Schriften* (Freiburg: Herder, 1884).

Schramm, Matthias. *Ibn al-Haythams Weg zur Physik* (Wiesbaden: Steiner, 1963).

Schrimpf, Gangolf. *Das Werk des Johannes Scottus Eriugena im Rahmen des Wissenscahftsverständnisses seiner Zeit: eine Hinführung zu Periphyseon* (Münster: Aschendorff, 1982).

Schütz, C. *Deus absconditus, Deus manifestus: die Lehre Hugos von St. Viktor über die Offenbarung Gottes* (Rome: Herder, 1967).

Schütz, Werner. *Geschichte der christliche Predigt* (Berlin: De Gruyter, 1972).

Schwertner, Thomas M. *Saint Raymond of Pennafort of the Order of Friars Preacher* (Milwaukee, WI: Bruce, 1935).

Schweyen, Renate. *Guarino Veronese: Philosophie und humanistische Pädagogik* (Munich: Fink, 1973).

Scott, Karen. "'This is why I have put you among your neighbors': St. Bernard's and St. Catherine's Understanding of the Love of God and Neighbor," in D. Maffei and P. Nardi (eds.) *Atti del Simposio Internazionale Cateriniano-Bernardiniano* (Siena: Accademia senese degli intronati, 1982) 279–94.

Scott, T. K. "Nicholas of Autrecourt, Buridan, and Ockhamism," *Journal of the History of Philosophy* 9 (1971) 15–41.

Scully, Edgar. "The Power of Physical Bodies According to Thomas of York," *Sciences ecclésiastiques* 14 (1962) 109–34.

Seaton, Wallace. "An Edition and Translation of the 'Tractatus de Consequentiis' by Ralph Strode, Fourteenth-Century Logician and Friend of Geoffrey Chaucer" (Ph.D. dissertation: University of California, Berkeley, 1973).

Seeskin, Kenneth (ed.). *The Cambridge Companion to Maimonides* (Cambridge: Cambridge University Press, 2005).

   Maimonides on the Origin of the World (Cambridge: Cambridge University Press, 2005).

"Sanctity and Silence: The Religious Significance of Maimonides' Negative Theology," *American Catholic Philosophical Quarterly* 76 (2002) 7–24.

Searching for a Distant God: The Legacy of Maimonides (New York: Oxford University Press, 2000).

Segoloni, Danilo (ed.). *Bartolo da Sassoferrato: studi e documenti per il VI centenario* (Milan: Giuffrè, 1962).

Sela, Shlomo. *Abraham Ibn Ezra and the Rise of Medieval Hebrew Science* (Leiden: Brill, 2003).

Sela, Shlomo and Gad Freudenthal. "Abraham Ibn Ezra's Scholarly Writings: A Chronological Listing," *Aleph* 6 (2006) 13–55.

Senko, Wladyslaw. "Les opinions d'Hervé Nédellec au sujet de l'essence et l'existence," *Mediaevalia Philosophica Polonorum* 10 (1961) 59–74.

"Tomasza Wiltona Quaestio disputata de anima intellectiva," *Studia Mediewistyczne* 5 (1964) 3–190.

Senner, Walter. "Jean de Sterngassen et son commentaire des *Sentences*," *Revue Thomiste* 97 (1997) 83–98.

Senner, Walter and Henryk Anzulewicz (eds.). *Albertus Magnus zum Gedenken nach 800 Jahren: neue Zugänge, Aspekte und Perspektiven* (Berlin: Akademie-Verlag, 2001).

Serene, Eileen. "Demonstrative Science," in N. Kretzmann *et al.* (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 496–517.

Sergent, F. Tyler. "A Bibliography of William of Saint-Thierry," in M. Dutton (ed.) *Truth as Gift: Studies in Medieval Cistercian History in Honor of John R. Sommerfeldt* (Kalamazoo, MI: Cistercian Publications, 2004) 457–82.

Sermoneta, Giuseppe. "Hillel ben Shemuel of Verona and his Philosophical Doctrine" (Ph.D. dissertation, Hebrew University of Jerusalem, 1962).

Ševčenko, Ihor. *Études sur la polémique entre Théodore Métochite et Nicéphore Choumnos* (Brussels: Éditions de Byzantion, 1962).

Seymour, M. C. *Bartholomaeus Anglicus and his Encyclopedia* (Aldershot: Variorum, 1992).

Sezgin, Fuat. *Geschichte des arabischen Schrifttums* (Leiden: Brill, 1967–).

(ed.). *Ibn Bajja Muhammad ibn Yahya ibn as-Saigh: Texts and Studies I* (Frankfurt: Institute for the History of Arabic-Islamic Science, 1999).

Sezgin, Fuat *et al.* (eds.). *Thābit ibn Qurra (d. 288/901): Texts and Studies* (Frankfurt: Institute for the History of Arabic-Islamic Science, 1997).

Shaked, Shaul. "Paymān: An Iranian Idea in Contact with Greek Thought and Islam," in *Transition Periods in Iranian History* (Paris: Association pour l'Avancement des Études Iraniennes, 1987) 217–40.

Shaki, Mansour. "The Dēnkard Account of the History of the Zoroastrian Scriptures," *Archīv Orientální* 49 (1981) 114–25.

Shank, Michael H. *Unless You Believe, You Shall Not Understand: Logic, University, and Society in Late Medieval Vienna* (Princeton, NJ: Princeton University Press, 1988).

Shannon, Joseph. "Good Works and Predestination According to Thomas of Strassburg, O.S.A." (Ph.D. dissertation: Pontifical Gregorian University of Baltimore, 1940).

Shapiro, Marc. *Limits of Orthodox Theology: Maimonides' Thirteen Principles Reappraised* (Oxford: Littman Library of Jewish Civilization, 2004).

Sharp, Dorothea E. *Franciscan Philosophy at Oxford in the Thirteenth Century* (London: Milford, 1930).

"Richard of Middleton, Franciscan Philosophy at Oxford," *British Society of Franciscan Studies* 16 (1930) 211–76.

Sharples, R. W. *Alexander of Aphrodisias on Fate* (London: Duckworth, 1983).

Sheedy, Anna. *Bartolus on Social Conditions in the Fourteenth Century* (New York: Columbia University Press, 1942).

Sheehan, Michael W. "The Religious Orders 1220–1370," in J. I. Catto (ed.) *The History of the University of Oxford*, vol. I: *The Early Oxford Schools* (Oxford: Clarendon Press, 1984) 193–224.

Shehadi, Fadlou. *Ghazali's Unique Unknowable God: A Philosophical Critical Analysis of Some of the Problems Raised by Ghazali's View of God as Utterly Unique and Unknowable* (Leiden: Brill, 1964).

Sherif, Mohamed Ahmed. *Ghazali's Theory of Virtue* (Albany: State University of New York Press, 1975).

Shibli Numani, Muhammad. *Abu Hanifah: Life and Work*, tr. M. Hadi Hussain (New Delhi: Kitab Bhavan, 1988).

Shihadeh, Ayman. *The Teleological Ethics of Fakhr al-Din al-Razi* (Leiden: Brill, 2006).

Shogimen, Takashi. "From Disobedience to Toleration: William of Ockham and the Medieval Discourse of Fraternal Correction," *Journal of Ecclesiastical History* 52 (2001) 599–622.

  Ockham and Political Discourse in the Late Middle Ages (Cambridge: Cambridge University Press, 2007).

Sicard, Patrice. *Hugues de Saint-Victor et son école: introduction, choix de texte, traduction et commentaries* (Turnhout: Brepols, 1991).

Sigmund, Paul E. *Nicholas of Cusa and Medieval Political Thought* (Cambridge, MA: Harvard University Press, 1963).

Sihvola, Juha and Troels Engberg-Pedersen (eds.). *The Emotions in Hellenistic Philosophy* (Dordrecht: Kluwer, 1998).

Sikes, Jeffrey. *Peter Abailard* (Cambridge: Cambridge University Press, 1932).

Sileo, L. "Dalla *lectio* alla *disputatio*: le *Questioni de modo essendi Dei in creaturis*, *De existentia rerum in Deo* e *De voluntate Dei* di Odi Rigaldi," in A. Cacciotti and B. Faes de Mottoni (eds.) *Editori di Quaracchi, 100 anni dopo. Bilancio e prospettive* (Rome: Edizioni Antonianum, 1997) 109–31.

Silk, Edmund. *Saeculi noni auctoris in Boetii Consolationem philosophiae commentarius* (Rome: American Academy in Rome, 1935).

Silman, Yochanan. *Philosopher and Prophet: Judah Halevi, the Kuzari and the Evolution of his Thought*, tr. L. J. Schramm (Albany: State University of New York Press, 1995).

Silvas, Anna. *Jutta and Hildegard: The Biographical Sources* (Turnhout: Brepols, 1998).

Silverstein, Theodore. "Daniel of Morley, English Cosmologist and Student of Arabic Science," *Mediaeval Studies* 10 (1948) 179–96.

Silvestro da Valsanzibio. *Vita e dottrina di Gaetano di Thiene, filosofo dello studio di Padova, 1387–1465* (Padua: Studio filosofico dei FF.MM. cappuccini, 1949).

Sinkewicz, Robert E. "The Doctrine of the Knowledge of God in the Early Writings of Barlaam the Calabrian," *Mediaeval Studies* 44 (1982) 181–242.

Sinkler, Georgette. "Medieval Theories of Composition and Division" (Ph.D. dissertation: Cornell University, 1985).

Siraisi, Nancy. "The *Expositio Problematum Aristotelis* of Peter of Abano," *Isis* 61 (1970) 321–39.

Sirat, Colette. *A History of Jewish Philosophy in the Middle Ages* (Cambridge: Cambridge University Press, 1985).

Sirat, Colette, Sara Klein-Braslavy, and Olga Weijers (eds.). *Les méthodes de travail de Gersonide et le maniement du savoir chez les scolastiques* (Paris: Vrin, 2003).

Sirridge, Mary. "*Institutiones Grammaticae* XVII, 187: Three Reactions," in I. Rosier (ed.) *L'héritage des grammairiens latins de l'antiquité aux lumières* (Leuven: Peeters, 1988) 171–81.

  "Robert Kilwardby as 'Scientific Grammarian'," *Histoire Epistémologie Langage* 10 (1990) 7–28.

"Robert Kilwardby: Figurative Constructions and the Limits of Grammar," in G. L. Bursill-Hall (ed.) *De ortu grammaticae* (Amsterdam: Benjamins, 1990) 321–37.

"The Science of Language and Linguistic Knowledge: John of Denmark and Robert Kilwardby," in S. Ebbesen (ed.) *Sprachtheorien in Spätantike und Mittelalter* (Tübingen: Narr, 1995) 109–34.

"Socrates' Hood: Lexical Meaning and Syntax in Jordanus and Kilwardby," *Cahiers de l'Institut du Moyen Age Grec et Latin* 44 (1983) 102–21.

"'The Universal Living Thing is Either Nothing or Posterior.' Radulphus Brito's *Quaestiones super libros De anima*," in P. J. J. M. Bakker and J. M. M. H. Thijssen (eds.) *Mind, Cognition and Representation: The Tradition of Commentaries on Aristotle's* De anima (Aldershot: Ashgate, 2007) 45–68.

"'Utrum idem sint dicere et intelligere sive videre in mente': Robert Kilwardby, *Quaestiones in librum primum Sententiarum*," *Vivarium* 45 (2007) 253–68.

Skinner, Quentin. *The Foundations of Modern Political Thought* (Cambridge: Cambridge University Press, 1978).

Smalley, Beryl. *The English Friars and Antiquity in the Early XIVth Century* (Oxford: Blackwell, 1960).

"John Baconthorp's Postill on St Matthew," *Mediaeval and Renaissance Studies* 4 (1958) 91–145.

"Robert Bacon and the Early Dominican School at Oxford," *Transactions of the Royal Historical Society* 30 (1948) 1–19.

The Study of the Bible in the Middle Ages, 3rd edn (Oxford: Blackwell, 1983).

"Which William of Nottingham?", *Medieval and Renaissance Studies* 3 (1954), 200–38.

Smith, A. Mark. "The Alhacenian Account of Spatial Perception and its Epistemological Implications," *Arabic Sciences and Philosophy* 15 (2005) 219–40.

Smith, Jane. "Islam and Christendom," in J. Esposito (ed.) *Oxford History of Islam* (Oxford: Oxford University Press, 1999).

Smoller, Laura Ackerman. "Astrology and the Sibyls: John of Legnano's *De adventu Christi* and the Natural Theology of the Later Middle Ages," *Science in Context* 20 (2007) 423–50.

History, Prophecy, and the Stars: The Christian Astrology of Pierre d'Ailly (Princeton, NJ: Princeton University Press, 1994).

Solère, Jean-Luc. "La logique d'un texte médiéval: Guillaume d'Auxerre et la question du possible," *Revue Philosophique de Louvain* 98 (2000) 250–93.

"Thomistes et antithomistes face à la question de l'infini créé: Durand de Saint-Pourçain, Hervé de Nédellec et Jacques de Metz," *Revue Thomiste* 97 (1997) 219–44.

Solignac, Aimé. "Péchés capitaux," in M. Viller, Gaetano Raciti, and Aimé Solignac (eds.) *Dictionnaire de spiritualité* (Paris: Beauchesne, 1937–95) XII.1: 853–62.

Solmsen, Friedrich. *Aristotle's System of the Physical World: A Comparison with his Predecessors* (Ithaca, NY: Cornell University Press, 1960).

Sorabji, Richard. *Emotion and Peace of Mind: From Stoic Agitation to Christian Temptation* (Oxford: Oxford University Press, 2000).

Matter, Space, and Motion (London: Duckworth, 1988).

The Philosophy of the Commentators, 200–600 AD: A Sourcebook (Ithaca, NY: Cornell University Press, 2005).

Self: Ancient and Modern Insights about Individuality, Life, and Death (Chicago: University of Chicago Press, 2006).

Time, Creation, and the Continuum (London: Duckworth, 1983).

Sorabji, Richard and David Rodin (eds.). *The Ethics of War: Shared Problems in Different Traditions* (Aldershot: Ashgate, 2006).

Sorge, Valeria. "L'ente e l'uno in una questione inedita di Taddeo da Parma," in G. Federici Vescovini (ed.) *Le problème des transcendentaux du XIV au XVII siècle* (Paris: Vrin, 2002) 23–34.

Profili dell'averroismo bolognese: metafisica e scienza in Taddeo da Parma (Naples: Luciano, 2001).

Souffrin, Pierre and Alain-Philippe Segonds (eds.). *Nicolas Oresme: tradition et innovation chez un intellectuel du XIV siècle* (Paris: Les Belles Lettres, 1988).

Southern, Richard W. *Robert Grosseteste: The Growth of an English Mind in Medieval Europe*, 2nd edn (Oxford: Clarendon Press, 1992).

Saint Anselm and his Biographer (Cambridge: Cambridge University Press, 1963).

Saint Anselm: Portrait in a Landscape (Cambridge: Cambridge University Press, 1990).

Scholastic Humanism and the Unification of Europe (Oxford: Blackwell, 1995–2001).

Spade, Paul Vincent (ed.). *The Cambridge Companion to Ockham* (Cambridge: Cambridge University Press, 1999).

"Five Logical Tracts by Richard Lavenham," in J. R. O'Donnell (ed.) *Essays in Honour of Anton Charles Pegis* (Toronto: Pontifical Institute of Mediaeval Studies, 1974) 70–124.

(tr.). *Five Texts on the Mediaeval Problem of Universals: Porphyry, Boethius, Abelard, Duns Scotus, Ockham* (Indianapolis, IN: Hackett, 1994).

"How to Start and Stop: Walter Burley on the Instant of Transition," *Journal of Philosophical Research* 19 (1994) 193–221.

"*Insolubilia* and Bradwardine's Theory of Signification," *Medioevo* 7 (1981) 115–34.

"Insolubles," in E. Zalta (ed.) *The Stanford Encyclopedia of Philosophy* (Fall 2005 edition): http://plato.stanford.edu/archives/fall2005/entries/insolubles/.

"Introduction," in John Wyclif, *On Universals* (Oxford: Clarendon Press, 1985) vii–xlvii.

"The Logic of *sit verum* in Richard Brinkley and William of Ockham," *Franciscan Studies* 54 (1994–7) 227–50.

"The Logic of the Categorical: The Medieval Theory of Descent and Ascent," in N. Kretzmann (ed.) *Meaning and Inference in Medieval Philosophy* (Dordrecht: Kluwer, 1988) 187–224.

"The Manuscripts of William Heytesbury's *Regulae solvendi sophismata*: Conclusions, Notes and Descriptions," *Medioevo* 15 (1989) 271–313.

The Mediaeval Liar: A Catalogue of the Insolubilia-Literature (Toronto: Pontifical Institute of Mediaeval Studies, 1975).

"Medieval Theories of *Obligationes*," in E. Zalta (ed.) *Stanford Encyclopedia of Philosophy* (Fall 2003 edition): http://plato.stanford.edu/archives/fall2003/entries/obligationes/.

"Notes on Richard Lavenham's So Called *Summulae logicales*, with a Partial Edition of the Text," *Franciscan Studies* 40 (1980) 370–407.

"Notes on Some Manuscripts of Logical and Physical Works by Richard Lavenham," *Manuscripta* 19 (1975) 139–46.

"Ockham, Adams and Connotation: A Critical Notice of Marilyn Adams, *William Ockham,*" *Philosophical Review* 99 (1990) 593–612.

"The Problem of Universals and Wyclif's Alleged 'Ultrarealism'," *Vivarium* 43 (2005) 111–23.

"Richard Lavenham and the Cambridge Logic," *Historiographia Linguistica* 7 (1980) 241–7.

"Richard Lavenham's *Obligationes:* Edition and Comments," *Rivista critica di storia della filosofia* 33 (1978) 225–42.

"The Semantics of Terms," in N. Kretzmann *et al.* (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 188–96.

"Three Questions by John of Wesel on *Obligationes* and *Insolubilia*" (1996): http://www.pvspade.com/Logic/docs/wesel.pdf.

"The Treatises *On Modal Propositions* and *On Hypothetical Propositions* by Richard Lavenham," *Mediaeval Studies* 35 (1973) 49–59.

"Walter Burley on the Kinds of Simple Supposition," *Vivarium* 37 (1999) 41–59.

Spade, Paul Vincent and Eleonore Stump. "Walter Burley and the *Obligationes* Attributed to William of Sherwood," *History and Philosophy of Logic* 4 (1983) 9–26.

Spade, Paul Vincent and Gordon Wilson. "Richard Lavenham's Treatise *Scire:* An Edition, with Remarks on the Identification of Martin (?) Bilond's *Obiectiones consequentiarum*," *Mediaeval Studies* 46 (1984) 1–30.

Speer, Andreas. "Bonaventure and the Question of a Medieval Philosophy," *Medieval Philosophy and Theology* 6 (1997) 25–46.

Die entdeckte Natur: Untersuchungen zu Begründungsversuchen einer scientia naturalis *im 12. Jahrhundert* (Leiden: Brill, 1995).

"*Lectio physica*: Anmerkungen zur *Timaios*-Rezeption im Mittelalter," in T. Leinkauf and C. Steel (eds.) *Platons* Timaios *als Grundtext der Kosmologie in Spätantike, Mittelalter und Renaissance* (Leuven: Leuven University Press, 2005) 213–34.

Spettmann, Hieronymus. "Die Psychologie des Johannes Pecham," *Beiträge zur Geschichte der Philosophie des Mittelalters* 20 (1919) 1–102.

Spinka, Matthew. *John Hus: A Biography* (Princeton, NJ: Princeton University Press, 1968; repr. Westport, CT: Greenwood, 1979).

John Hus at the Council of Constance (New York: Columbia University Press, 1966).

John Hus's Concept of the Church (Princeton, NJ: Princeton University Press, 1966).

Spitzig, Joseph. *Sacramental Penance in the Twelfth and Thirteenth Centuries* (Washington, DC: Catholic University of America Press, 1947).

Sprandel, Rolf. *Ivo von Chartres und seine Stellung in der Kirchengeschichte* (Stuttgart: Hiersemann, 1962).

Sprengard, Karl Anton. *Systematische-Historische Untersuchungen zur Philosophie des XIV Jahrhunderts* (Bonn: Mainzer Philosophische Forschungen, 1968).

Spruit, Leen. *Species Intelligibilis: From Perception to Knowledge* (Leiden: Brill, 1994–5).

Spruyt, Joke. "Gerardus Odonis on the Universal," *Archives d'histoire doctrinale et littéraire du moyen âge* 63 (1996) 171–208.

Spufford, Peter. *Money and its Use in Medieval Europe* (Cambridge: Cambridge University Press, 1988).

Squire, Aelred. *Aelred of Rievaulx: A Study* (Kalamazoo, MI: Cistercian Publications, 1981).

Stadter, Ernst. *Psychologie und Metaphysik der menschlichen Freiheit: die ideengeschichtliche Entwicklung zwischen Bonaventura und Duns Scotus* (Paderborn: Schöningh, 1971).

Stahl, William and Richard Johnson. *Martianus Capella and the Seven Liberal Arts* (New York: Columbia University Press, 1971).

Staley, Kevin. "Al-Kindi on Creation: Aristotle's Challenge to Islam," *Journal of the History of Ideas* 50 (1989) 355–70.

Staley, Lynn. "Julian of Norwich and the Late Fourteenth-Century Crisis of Authority," in D. Aers and L. Staley (eds.) *The Powers of the Holy: Religion, Politics, and Gender in Late Medieval English Culture* (University Park, PA: Pennsylvania State University Press, 1996) 107–78.

Stammerjohann, Harro and Sylvain Auroux (eds.). *Lexicon grammaticorum* (Tübingen: Niemeyer, 1996).

Stead, M. T. "Manegold of Lautenbach," *English Historical Review* 29 (1914) 1–15.

Steel, Carlos. *Der Adler und die Nachteule. Thomas und Albert über die Möglichkeit der Metaphysik* (Münster: Aschendorff, 2001).

"Das neue Interesse für den Platonismus am Ende des 13. Jahrhunderts," in T. Kobusch and B. Mojsisch (eds.) *Platon in der abendländischen Geistesgeschichte, Neue Forschungen zum Platonismus* (Darmstadt: Wissenschaftliche Buchgesellschaft, 1997) 120–33.

"Plato Latinus (1939–1989)," in J. Hamesse and M. Fattori (eds.) *Rencontres de cultures dans la philosophie médiévale: traductions et traducteurs de l'Antiquité tardive au XIVᵉ siècle* (Louvain-la-Neuve: Publication de l'Institut d'études médiévales/Cassino: Università di Cassino, 1990) 301–16.

Steer, Georg. *Hugo Ripelin von Strassburg: zur Rezeptions- und Wirkungsgeschichte des "Compendium theologicae veritatis" im deutschen Spätmittelalter* (Tübingen: Niemeyer, 1981).

Stegmüller, Friedrich. "Der Tractatus de Deo Trino des Hugolins von Orvieto OESA," *Annali della biblioteca governativa e libreria civica di Cremona* 7 (1954) 19–57.

Steinschneider, Moritz. *Die hebräischen Übersetzungen des Mittelalters und die Juden als Dolmetscher* (Graz: Akademische Druck- und Verlagsanstalt, 1956).

Stella, Prospero T. "La prima critica di Hervaeus Natalis O. P. alla noetica di Enrico di Gand," *Salesianum* 21 (1959) 125–70.

"Teologi e teologia nelle *Reprobationes* de Bernardo d'Auvergne ai *Quodlibeti* di Goffredo di Fontaines," *Salesianum* 19 (1957) 171–214.

Steneck, Nicholas H. *Science and Creation in the Middle Ages: Henry of Langenstein (d. 1397) on Genesis* (Notre Dame, IN: University of Notre Dame Press, 1976).

Stephanou, Pelopidas Étienne. *Jean Italos, philosope et humaniste* (Rome: Pontificium Institutum Orientalium Studiorum, 1949).

Stern, Samuel M. *Studies in Early Ismaʿilism* (Leiden: Brill, 1983).

Stevenson, William, Jr. *Christian Love and Just War: Moral Paradox and Political Life in St. Augustine and his Modern Interpreters.* (Macon, GA: Mercer University Press, 1987).

Stirnimann, Heinrich and Ruedi Imbach. *Eckardus Theutonicus, homo doctus et sanctus: Nachweise und Berichte zum Prozeß gegen Meister Eckhart* (Fribourg: Universitätsverlag, 1992).

Stock, Brian. *Myth and Science in the Twelfth Century: A Study of Bernard Silvester* (Princeton, NJ: Princeton University Press, 1972).

Stone, Abraham. "Simplicius and Avicenna on the Essential Corporeity of Material Substance," in R. Wisnovsky (ed.) *Aspects of Avicenna* (Princeton, NJ: Markus Wiener, 2001) 73–130.

Stone, M. W. F. "Equity and Moderation: The Reception and Uses of Aristotle's Doctrine of ΕΠΙΕΙΚΕΙΑ in Thirteenth-Century Ethics," *Documenti e studi sulla tradizione filosofica medievale* 17 (2006) 121–56.

"In the Shadow of Augustine: The Scholastic Debate on Lying from Robert Grosseteste to Gabriel Biel," in J. A. Aertsen and M. Pickavé (eds.) *Herbst des Mittelalters? Fragen zur Bewertung des 14. und 15. Jahrhunderts* (Berlin: De Gruyter, 2004) 277–317.

"'*Initium omnis peccati est superbia*': Jean Gerson's Account of Pride in his Mystical Theology, Pastoral Thought, and Hamartiology," in R. Newhauser (ed.) *In the Garden of Evil: The Vices and their Culture in the Middle Ages* (Toronto: Pontifical Institute of Mediaeval Studies, 2005) 293–323.

"The Soul's Relation to the Body: Thomas Aquinas, Siger of Brabant and the Parisian Debate on Monopsychism," in T. Crane and S. Patterson (eds.) *History of the Mind–Body Problem* (London: Routledge, 2000) 34–69.

Street, Tony. "Tusi on Avicenna's Logical Connectives," *History and Philosophy of Logic* 16 (1995) 257–68.

Streveler, Paul. "Richard the Sophister," in E. Zalta (ed.) *The Stanford Encyclopedia of Philosophy* (Spring 2005 edition): http://plato.stanford.edu/archives/spr2005/entries/richard-sophister/.

Stroick, Clemens. *Heinrich von Friemar: Leben, Werke, philosophisch-theologische Stellung in der Scholastik* (Freiburg: Herder, 1954).

Stroumsa, Sarah. *Freethinkers of Medieval Islam: Ibn al-Rāwandi, Abū Bakr al-Rāzī and their Impact on Islamic Thought* (Leiden: Brill, 1999).

"On the Maimonidean Controversy in the East: The Role of Abu'l-Barakat al-Baghdadi" [in Hebrew], in H. Ben-Shammai (ed.) *Hebrew and Arabic Studies in Honour of Joshua Blau* (Tel Aviv, 1993).

"Saadya and Jewish Kalam," in D. H. Frank and O. Leaman (eds.) *Cambridge Companion to Medieval Jewish Philosophy* (Cambridge: Cambridge University Press, 2003) 71–90.

Struve, Tilman. "Die Anthropologie des Alfredus in ihrer Stellung zwischen Platonismus und Aristotelismus," *Archiv für Kulturgeschichte* 55 (1973) 366–90.

Stump, Eleonore. *Aquinas* (London: Routledge, 2003).

"Aquinas' Account of Freedom: Intellect and Will," in B. Davies (ed.) *Thomas Aquinas: Contemporary Philosophical Perspectives* (Oxford: Oxford University Press, 2002) 275–94.

"Augustine on Free Will," in N. Kretzmann and E. Stump (eds.) *The Cambridge Companion to Augustine* (Cambridge: Cambridge University Press, 2001) 124–47.

"Dialectic in the Eleventh and Twelfth Centuries: Garlandus Compotista," *History and Philosophy of Logic* 1 (1980) 1–18.

"Saadya Gaon and the Problem of Evil," *Faith and Philosophy* 14 (1997) 523–49.

Wandering in Darkness: Narrative and the Problem of Suffering (Oxford: Oxford University Press, forthcoming).

"William of Sherwood's Treatise on Obligations," *Historiographia Linguistica* 7 (1980) 249–61.

Stump, Eleonore and Norman Kretzmann. "Absolute Simplicity," *Faith and Philosophy* 2 (1985) 353–91.

Sturlese, Loris. *Dokumente und Forschungen zu Leben und Werke Dietrichs von Freiberg* (Hamburg: Meiner, 1984).

"Gottebenbildichkeit und Beseelung des Himmels in den *Quodlibeta* Heinrichs von Lübeck OP," *Freiburger Zeitschrift für Philosophie und Theologie* 24 (1977) 191–233.

"Johannes Picardi von Lichtenberg," in W. Stammler *et al.* (eds.) *Die deutsche Literatur des Mittelalters: Verfasserlexikon* (Berlin: De Gruyter, 1977–) IV: 706–10.

Suárez, Gregorio. "El pensamiento de Egidio Romano en torno a la distinción de esencia y existencia," *La Ciencia Tomista* 75 (1948) 66–99, 230–72.

Sudhoff, Karl. "Die Salernitaner Handschrift in Breslau," *Archiv für Geschichte der Medizin* 12 (1920) 101–48.

Sullivan, Thomas. *Benedictine Monks at the University of Paris, A.D. 1229–1500: A Biographical Register* (Leiden: Brill, 1995).

"The *Quodlibeta* of the Canons Regular and the Monks," in C. Schabel (ed.) *Theological Quodlibeta in the Middle Ages: The Fourteenth Century* (Leiden: Brill, 2007) 359–400.

Swanson, Jenny. *John of Wales: A Study of the Works and Ideas of a Thirteenth-Century Friar* (Cambridge: Cambridge University Press, 1989).

Swanson, Scott G. "The Medieval Foundations of John Locke's Theory of Natural Rights: Rights of Subsistence and the Principle of Extreme Necessity," *History of Political Thought* 18 (1997) 403–12.

Sweeney, Eileen. *Logic, Theology, and Poetry in Boethius, Abelard, and Alan of Lille: Words in the Absence of Things* (New York: Palgrave Macmillan, 2006).

"Restructuring Desire: Aquinas, Hobbes, and Descartes on the Passions," in S. F. Brown (ed.) *Meeting of the Minds: The Relations between Medieval and Classical Modern European Philosophy* (Turnhout: Brepols, 1998) 215–33.

Swift, Louis J. "Augustine on War and Killing: Another View," *Harvard Theological Review* 66 (1973) 369–83.

Sylla, Edith. "Mathematical Physics and Imagination in the Work of the Oxford Calculators: Roger Swineshead's *On Natural Motions*," in M. Clagett, E. Grant and J. Murdoch (eds.) *Mathematics and its Applications to Science and Natural Philosophy in the Middle Ages: Essays in Honor of Marshall Clagett* (Cambridge: Cambridge University Press, 1987) 69–101.

"Medieval Concepts of the Latitude of Forms: The Oxford Calculators," *Archives d'histoire doctrinale et littéraire du moyen âge* 40 (1973) 251–71.

"Medieval Quantifications of Qualities: The 'Merton School'," *Archive for History of Exact Sciences* 8 (1971) 9–39.

"The Oxford Calculators," in N. Kretzmann *et al.* (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 540–64.

"The Oxford Calculators and Mathematical Physics: John Dumbleton's *Summa logicae et philosophiae naturalis*, Parts II and III," in S. Unguru (ed.) *Physics, Cosmology and Astronomy, 1300–1700: Tension and Accommodation* (Dordrecht: Kluwer, 1991) 129–61.

The Oxford Calculators and the Mathematics of Motion, 1320–1350: Physics and Measurement by Latitudes (New York: Garland, 1991).

"William Heytesbury on the Sophism '*Infinita sunt finita*'," in J. P. Beckmann and W. Kluxen (eds.) *Sprache und Erkenntnis im Mittelalter* (Berlin: De Gruyter, 1981) II: 628–36.

Synan, Edward. "The Insolubilia of Roger Nottingham, O.F.M.," *Mediaeval Studies* 26 (1964) 257–70.

"The 'Introitus ad sententias' of Roger Nottingham, O.F.M.," *Mediaeval Studies* 25 (1963) 259–79.

Tabarroni, Andrea. "Lo pseudo-Egidio (Guglielmo Arnaldi) e un'inedita continuazione del commento di Tommaso al 'Peryermenias'," *Medioevo* 14 (1988) 371–427.

Tachau, Katherine. "The Influence of Richard Campsall on Fourteenth-Century Oxford Thought," in A. Hudson and M. Wilks (eds.) *From Ockham to Wyclif* (Oxford: Blackwell, 1987) 109–23.

"Introduction," in P. Streveler *et al.* (eds.) *Seeing the Future Clearly: Questions on Future Contingents* (Toronto: Pontifical Institute of Mediaeval Studies, 1995) 1–98.

"Logic's God and the Natural Order in Late Medieval Oxford: The Teaching of Robert Holcot," *Annals of Science* 53 (1996) 235–67.

"The Problem of the *species in medio* at Oxford in the Generation after Ockham," *Mediaeval Studies* 44 (1982) 394–443.

"The 'Questiones in Primum Librum Sententiarum' of Andreas de Novocastro," *Archives d'histoire doctrinale et littéraire du moyen âge* 69 (1992) 289–318.

"Richard Campsall as a Theologian: New Evidence," in B. Mojsisch and O. Pluta (eds.) *Historia philosophiae medii aevi: Studien zur Geschichte der Philosophie des Mittelalters: Festschrift für Kurt Flasch* (Amsterdam: Benjamins, 1991) 979–1002.

"Robert Holcot on Contingency and Divine Deception," in L. Bianchi and R. Eugenio (eds.) *Filosofia e teologia nel trecento: studi in ricordo di Eugenio Randi* (Louvain-la-Neuve: Fédération internationale des instituts d'études médiévales, 1994) 157–96.

Vision and Certitude in the Age of Ockham: Optics, Epistemology and the Foundations of Semantics, 1250–1345 (Leiden: Brill, 1988).

"Wodeham, Crathorn, and Holcot: The Development of the *complexe significabile*," in L. M. de Rijk and H. Braakhuis (eds.) *Logos and Pragma* (Nijmegen: Ingenium, 1987) 161–87.

Talmon, Rafael. "Naẓra ǧadīda fī qaḍiyyat aqsām al-kalām: dirāsa ḥawl kitāb Ibn al-Muqaffaʿ fī al-manṭiq," *al-Karmil* 12 (1991) 43–67.

Tambrun, Brigitte. *Pléthon: le retour de Platon* (Paris: Vrin, 2006).

Tanner, Norman (ed.). *Decrees of the Ecumenical Councils* (London: Sheed and Ward, 1990).

Tardieu, Michel. "Chosroès," in *Dictionnaire des philosophes antiques* (Paris: CNRS Éditions, 1994) II: 309–18.

"La recension arabe des Magika logia," in B. Tambrun-Krasker (ed.) *Oracles Chaldaïques: recension de Georges Gémiste Pléthon* (Athens: Academy of Athens, 1995) 157–71.

Taschow, Ulrich. *Nicole Oresme und der Frühling der Moderne: die Ursprünge unserer modernen quantitativ-metrischen Weltaneignungsstrategien und neuzeitlichen Bewusstseins- und Wissenschaft-skultur* (Halle: Avox Medien-Verlag, 2003).

Tatakis, Basil. *Byzantine Philosophy*, tr. N. J. Moutafakis (Indianapolis, IN: Hackett, 2003).

La philosophie Byzantine (Paris: Presses universitaires de France, 1949).

Tavard, George H. *Trina Deitas: The Controversy between Hincmar and Gottschalk* (Milwaukee, WI: Marquette University Press, 1996).

Teetaert, Amedeus. "La 'Formula confessionis' du frère mineur Jean Rigaud (d. 1323)," in *Miscellanea historica in honorem Alberti de Meyer* (Leuven: Bibliothèque de l'Université, 1946) 651–76.

"La littérature quodlibetique," *Ephemerides theologiae Lovanienses* 14 (1937) 77–105.

Teeuwen, Mariken. *The Vocabulary of Intellectual Life in the Middle Ages* (Turnhout: Brepols, 2003).

Teixidor, Javier. *Aristote en syriaque* (Paris: CNRS Éditions, 2003).

Tellenbach, Gerd. *The Church in Western Europe from the Tenth to the Early Twelfth Century* (Cambridge: Cambridge University Press, 1993).

Terian, Abraham. "The Hellenizing School: Its Time, Place, and Scope of Activities Reconsidered," in N. Garsoian *et al.* (eds.) *East of Byzantium: Syria and Armenia in the Formative Period* (Washington, DC: Dumbarton Oaks, 1980) 175–86.

Teske, Roland. *Studies in the Philosophy of William of Auvergne, Bishop of Paris (1228–1249)* (Milwaukee, WI: Marquette University Press, 2006).

"William of Auvergne's Debt to Avicenna," in J. Janssens and D. De Smet (eds.) *Avicenna and his Heritage* (Leuven: Leuven University Press, 2002) 153–70.

Tessier, Georges. "Jean de Mirecourt, philosophe et théologien," *Histoire litteraire de la France* 40 (1974) 1–52.

Teuffel, W. S. *Geschichte der Römische Literatur*, 6th edn (Teubner: Leipzig, 1910–16).

Theissing, Hermann. *Glaube und Theologie bei Robert Cowton OFM* (Münster: Aschendorff, 1970).

Théry, Gabriel. *Autour du décret de 1210: II. Alexandre d'Aphrodise* (Kain: Le Saulchoir, 1926).

Études dionysiennes (Paris: Vrin, 1937).

Thijssen, Johannes M. M. H. "The Buridan School Reassessed: Buridan and Albert of Saxony," *Vivarium* 42 (2004) 18–42.

Censure and Heresy at the University of Paris, 1200–1400 (Philadelphia: University of Pennsylvania Press, 1998).

"Master Amalric and the Amalricians: Inquisitorial Procedure and the Suppression of Heresy at the University of Paris," *Speculum* 71 (1996) 43–65.

"The Quest for Certain Knowledge in the Fourteenth Century: Nicholas of Autrecourt against the Academics," in J. Sihvola (ed.) *Ancient Scepticism and the Sceptical Tradition* (Helsinki: Societas Philosophica Fennica, 2000) 199–223.

"The Response to Thomas Aquinas in the Early Fourteenth Century: Eternity and Infinity in the Works of Henry of Harclay, Thomas of Wilton and William of Alnwick OFM," in J. B. M. Wissink (ed.) *The Eternity of the World in the Thought of Thomas Aquinas and his Contemporaries* (Leiden: Brill, 1990) 82–100.

Thijssen, Johannes M. M. H. and Jack Zupko (eds.). *The Metaphysics and Natural Philosophy of John Buridan* (Leiden: Brill, 2001).

Thom, Paul. *Logic and Ontology in the Syllogistic of Robert Kilwardby* (Leiden: Brill, 2007).

Thomas, Ivo. "Maxims in Kilwardby," *Dominican Studies* 7 (1954) 129–46.

Thomas, Rudolf (ed.). *Petrus Abaelardus: Person, Wirk, und Wirkung* (Trier: Paulinus-Verlag, 1980).

Thomson, R. B. "Two Astronomical Tractates of Abbo of Fleury," in J. D. North and J. J. Roche (eds.) *The Light of Nature: Essays in the History and Philosophy of Science Presented to A. C. Crombie* (Dordrecht: Nijhoff, 1985) 113–33.

Thomson, S. Harrison. "A Further Note on Master Adam of Bocfeld," *Medievalia et Humanistica* 12 (1958) 23–32.

   "The 'Notule' of Grosseteste on the Nicomachean Ethics," *Proceedings of the British Academy* 19 (1934) 3–26.

   "The Philosophical Basis of Wyclif's Theology," *Journal of Religion* 11 (1931) 86–116.

   "The Works of Magister Adam of Bocfield (Bouchermefort)," *Medievalia et Humanistica* 2 (1944) 55–87.

   The Writings of Robert Grosseteste, Bishop of Lincoln 1235–1253 (Cambridge: Cambridge University Press, 1940).

Thomson, W. R. *The Latin Writings of John Wyclyf: An Annotated Catalog* (Toronto: Pontifical Institute of Medieval Studies, 1983).

Thorndike, Lynn. *A History of Magic and Experimental Science* (New York: Columbia University Press, 1923–58).

   "Manuscripts of the Writings of Peter of Abano," *Bulletin of the History of Medicine* 15 (1944) 201–19.

   Michael Scot (London: Nelson, 1965).

   "A New Work by Robert Holcot (Corpus Christi College, Oxford, MS 138)," *Archives internationales d'histoire des sciences* 10 (1957) 227–35.

Thorndike, Lynn and Pearl Kibre. *A Catalogue of Incipits of Mediaeval Scientific Writings in Latin* (London: Mediaeval Academy of America, 1963).

Thureau-Dangin, Paul. *Un prédicateur populaire dans l'Italie de la Renaissance: Saint Bernardin de Sienne, 1380–1444* (Paris: Bloud et Gay, 1926).

Thurot, Charles. *Extraits de divers manuscrits latins, pour servir à l'histoire des doctrines grammaticales au Moyen Age* (Paris: Bibliothèque Impériale, 1869; repr. Frankfurt: Minerva, 1964).

Tierney, Brian. *Foundations of the Conciliar Theory: The Contribution of the Medieval Canonists from Gratian to the Great Schism*, new edn (Leiden: Brill, 1998).

   "Hierarchy, Consent and the 'Western Tradition'," *Political Theory* 15 (1987) 646–54.

   The Idea of Natural Rights: Studies on Natural Rights, Natural Law and Church Law, 1150–1625 (Atlanta, GA: Scholars Press, 1997).

   "Marsilius on Rights," *Journal of the History of Ideas* 52 (1991) 5–17.

   Medieval Poor Law (Berkeley: University of California Press, 1959).

   Origins of Papal Infallibility, 1150–1350: A Study on the Concepts of Infallibility, Sovereignty and Tradition in the Middle Ages (Leiden: Brill, 1972).

   "'The Prince is Not Bound by the Laws': Accursius and the Origins of the Modern State," in G. Rossi (ed.) *Atti del Convegno Internazionale di Studi Accursiani* (Milan: Giuffrè, 1968) III: 1245–74.

   "Tuck on Rights: Some Medieval Problems," *History of Political Thought* 4 (1983) 429–41.

Tihon, Paul. *Foi et théologie selon Godefroid de Fontaines* (Bruges: Desclée de Brouwer, 1966).

Tinnefeld, Franz. "Ein Text des Prochoros Kydones in *Vat. gr. 609* über die Bedeutung der Syllogismen für die theologische Erkenntnis," in A. Schoors and P. van Deun (eds.) *Philohistōr: miscellenea in honorem Caroli Laga septuagenarii* (Leuven: Peeters, 1994) 515–27.

Tirosh-Samuelson, Hava. *Happiness in Premodern Judaism: Virtue, Knowledge, and Well-Being* (Cincinnati, OH: Hebrew Union College Press, 2003).

"Philosophy and Kaballah: 1200–1600," in D. Frank and O. Leaman (eds.) *The Cambridge Companion to Medieval Jewish Philosophy* (Cambridge: Cambridge University Press, 2003) 218–57.

Tobiass, Marc and Maurice Ifergan. *Crescas: un philosophe juif dans l'Espagne médiévale* (Paris: Cerf, 1995).

Tobin, Frank. "Henry Suso and Elsbeth Stagel: Was the *Vita* a Cooperative Effort?," in C. Mooney (ed.) *Gendered Voices: Medieval Saints and their Interpreters* (Philadelphia: University of Pennsylvania Press, 1999) 118–35.

Tobin, Rosemary Barton. *Vincent of Beauvais' "De Eruditione Filiorum Nobilium": The Education of Women* (New York: Lang, 1984).

Tomson, Peter J. (ed.). *Abraham Ibn Ezra: savant universel* (Brussels: Institutum Judaicum, 2000).

Tornero Poveda, E. *Al-Kindi: la transformacion de un pensamiento religioso en un pensamiento racional* (Madrid: Consejo Superior de Investigaciones Científicas, 1992).

Torrell, Jean-Pierre. *Saint Thomas Aquinas*, vol. I: *The Person and his Work*, tr. R. Royal (Washington, DC: Catholic University of America Press, 1996).

Saint Thomas Aquinas, vol. II: *Spiritual Master* (Washington, DC: Catholic University of America Press, 2003).

Torrell, Jean-Pierre and Denise Bouthillier. *Pierre le Vénérable et sa vision du monde: sa vie, son œuvre, l'homme et le démon* (Leuven: Spicilegium sacrum Lovaniense, 1986).

Touati, Charles. *La pensée philosophique et théologique de Gersonide* (Paris: Éditions de Minuit, 1973).

"La providence divine chez Hasdai Crescas," *Da'at* 10 (1983) 15–31.

Trapp, Damasus. "Augustinian Theology of the 14th Century: Notes on Editions, Marginalia, and Booklore," *Augustiniana* 6 (1956) 146–274.

"Hiltalinger's Augustinian Quotations," *Augustiniana* 4 (1954) 412–49.

"Notes on Some Manuscripts of the Augustinian Michael de Massa (†1337)," *Augustinianum* 5 (1965) 58–133.

"Peter Ceffons of Clairvaux," *Recherches de théologie ancienne et médiévale* 24 (1957) 101–54.

Travaglia, Pinella. *Magic, Causality, and Intentionality: The Doctrine of Rays in al-Kindi* (Turnhout: Micrologus, 1999).

Traver, Andrew. "William of Saint-Amour's Two Disputed Questions 'De quantitate eleemosynae' and 'De valido mendicante'," *Archives d'histoire doctrinale et littéraire du moyen âge* 62 (1995) 295–342.

Trifogli, Cecilia. "Averroes's Doctrine of Time and its Reception in the Scholastic Debate," in P. Porro (ed.) *The Medieval Concept of Time* (Leiden: Brill, 2001) 57–82.

"La dottrina del luogo in Egidio Romano," *Medioevo* 14 (1988) 260–90.

"Giles of Rome on Natural Motion in the Void," *Mediaeval Studies* 54 (1992) 136–61.

"Giles of Rome on the Instant of Change," *Synthese* 96 (1993) 93–114.

Liber Quartus Physicorum Aristotelis: Repertorio delle Questioni, Commenti Inglesi ca. 1250–1270 (Florence: SISMEL, 2007).

"Il luogo dell'ultima sfera nei commenti tardo-antichi e medievali a Phyica IV.5," *Giornale critico della filosofia italiana* 68 (1989) 144–60.

Oxford Physics in the Thirteenth Century (ca. 1250–1270): Motion, Infinity, Place and Time (Leiden: Brill, 2000).

"Il problema dello statuto ontologico del tempo nelle 'Quaestiones super Physicam' di Thomas Wylton e di Giovanni di Jandun," *Documenti e studi sulla tradizione filosofica medievale* 1 (1990) 491–548.

"The *Quodlibet* of Thomas Wylton," in C. Schabel (ed.) *Theological Quodlibeta in the Middle Ages: The Fourteenth Century* (Leiden: Brill, 2007) 231–66.

"Thomas Wylton on Final Causality," in A. Fidora and M. Lutz-Bachmann (eds.) *Erfahrung und Beweis: die Wissenschaft von der Natur im 13. und 14. Jahrhundert* (Berlin: Akademie-Verlag, 2007) 249–64.

"Thomas Wylton on Motion," *Archiv für Geschichte der Philosophie* 77 (1995) 135–54.

"Thomas Wylton on the Immobility of Place," *Recherches de théologie et philosophie médiévales* 65 (1998) 1–39.

Trifogli, Cecilia and Lauge Nielsen. "Thomas Wylton's Questions on Number, the Instant, and Time," *Documenti e studi sulla tradizione filosofica medievale* 16 (2005) 57–117.

Trizio, Michele. "Byzantine Philosophy as a Contemporary Historiographical Project," *Recherches de théologie et philosophie médiévales* 74 (2007) 247–94.

Troeltsch, Ernst. *The Social Teaching of the Christian Churches*, tr. O. Wyon (New York: Macmillan, 1931; repr. New York: Harper, 1960).

Troncarelli, Fabio. *Tradizioni perdute. La 'Consolazione Philosophiae' nell'alto medioevo* (Padua: Antenore, 1981).

Trottmann, Christian. "Verbe mentale et noétique thomiste dans le *De verbo* d'Hervé de Nédellec," *Revue Thomiste* 97 (1997) 47–62.

La vision béatifique: des disputes scolastiques à sa définition par Benoît XII (Rome: École française de Rome, 1995).

Troupeau, Gérard. "'Abdīshūʿ ibn Bahrīz et son livre sur les définitions de la logique," in D. Jacquart (ed.) *Les voies de la science grecque* (Geneva: Droz, 1997).

"La logique d'Ibn al-Muqaffaʿ et les origins de la grammaire arabe," *Arabica* 28 (1981) 242–50.

Trusen, Winfried. *Der Prozess gegen Meister Eckhart: Vorgeschichte, Verlauf und Folgen* (Paderborn: Schöningh, 1988).

Tsirpanlis, Constantine. "The Career and Writings of Nicolas Cabasilas," *Byzantion* 49 (1979) 414–27.

The Liturgical and Mystical Theology of Nicolas Cabasilas (New York: Tsirpanlis, 1979).

Tuck, Richard. "Grotius's *Of the Law of War and Peace*," in J. H. Burns (ed.) *The Cambridge History of Political Thought, 1450–1700* (Cambridge: Cambridge University Press, 1991) 514–22.

Natural Rights Theories: Their Origin and Development (Cambridge: Cambridge University Press, 1979).

The Rights of War and Peace: Political Thought and the International Order from Grotius to Kant (Oxford: Oxford University Press, 1999).

Tugwell, Simon. "Auctor Summularum, Petrus Hispanus OP Stellensis?," *Archivum Fratrum Praedicatorum* 76 (2006) 103–15.

"Petrus Hispanus: Comments on Some Proposed Identifications," *Vivarium* 37 (1999) 103–13.

Turley, Thomas. "John Baconthorpe on Papal Infallibility," *Journal of Ecumenical Studies* 19 (1982) 744–58.

Turner, C. J. G. "The Career of George-Gennadius Scholarius," *Byzantion* 39 (1969) 420–55.

Turner, Denys. *The Darkness of God: Negativity in Christian Mysticism* (Cambridge: Cambridge University Press, 1995).

Tuve, Rosamond. "Notes on Virtues and Vices," *Journal of the Warburg and Courtauld Institutes* 26 (1963) 264–303.

Tweedale, Martin. *Abailard on Universals* (Amsterdam: North-Holland, 1976).

"John of Rodynton on Knowledge, Science, and Theology" (Ph.D. dissertation: UCLA, 1965).

"Logic (i): From the Late Eleventh Century to the Time of Abelard," in P. Dronke (ed.) *A History of Twelfth-Century Western Philosophy* (Cambridge: Cambridge University Press, 1988) 196–226.

Twersky, Isadore (ed.). *Rabbi Moses Nahmanides (Ramban): Explorations in his Religious and Literary Virtuosity* (Cambridge, MA: Harvard University Press, 1983).

Twersky, Isadore and Jay Harris (eds.). *Rabbi Abraham ibn Ezra: Studies in the Writings of a Twelfth-Century Jewish Polymath* (Cambridge, MA: Harvard University Press, 1993).

Työrinoja, Reijo. "God, Causality, and Nature. Some Problems of Causality in Medieval Theology," in E. Martikainen (ed.) *Infinity, Causality and Determinism: Cosmological Enterprises and their Preconditions* (Frankfurt: Lang, 2002) 45–60.

Ullmann, Manfred. "Ḫālid ibn Yazīd und die Alchemie: eine Legende," *Der Islam* 55 (1978) 181–218.

Die Medizin im Islam (Leiden: Brill, 1970).

Die Natur-und Geheimwissenschaften im Islam (Leiden: Brill, 1972).

Ullmann, Walter. "Bartolus on Customary Law," *Judicial Review* 52 (1940) 265–83.

The Growth of Papal Government in the Middle Ages: A Study in the Ideological Relation of Clerical to Lay Power (London: Methuen, 1955).

"John of Salisbury's *Policraticus* in the Later Middle Ages," in *Jurisprudence in the Middle Ages: Collected Studies* (London: Variorum Reprints, 1980) 519–45.

Medieval Papalism: The Political Theories of the Medieval Canonists (London: Methuen, 1949; repr. Westport, CT: Hyperion Press, 1979).

Ullrich, Lothar. *Fragen der Schöpfungslehre nach Jakob von Metz, O.P.* (Leipzig: Benno, 1966).

Uña Juarez, Agustín. *La filosoifa del siglo XIV. Contexto cultural de Walter Burley* (Madrid: Biblioteca 'Ciudad de Dios' Real monasterio de El Escorial, 1978).

Underhill, Evelyn. *The Essentials of Mysticism and Other Essays* (New York: Dutton, 1920).

Undset, Sigrid. *Catherine of Siena* (New York: Sheed and Ward, 1954).

Unguru, Sabetai. "Mathematics and Experiment in Witelo's Perspectiva," in E. Grant and J. Murdoch (eds.) *Mathematics and its Applications to Science and Natural Philosophy in the Middle Ages: Essays in Honor of Marshall Clagett* (Cambridge: Cambridge University Press, 1987) 269–301.

Upjohn, Sheila. *In Search of Julian of Norwich* (Darton, Longman and Todd, 1989).

Urvoy, Dominique. *Ibn Rushd* (London: Routledge, 1991).

Penser l'Islam: les présupposés islamiques de l'"Art" de Lull (Paris: Vrin, 1980).

Vajda, Georges. "Autour de la théorie de la connaissance chez Saadia," *Revue des Études Juives* 126 (1967) 375–97.

"Le dialogue de l'âme et de la raison dans les *Devoirs des Cœurs* de Bahya Ibn Paquda," *Revue des Études Juives* 102 (1937) 93–104.

Isaac Albalag: Averroiste juif, traducteur et commentateur d'Al-Ghazali (Paris: Vrin, 1960).

"La philosophie et la théologie de Joseph ibn Zaddiq," *Archives d'histoire doctrinale et littéraire du moyen âge* 24 (1949) 93–181.

La théologie ascetique de Bahya ibn Paquda (Paris: Cahiers de la Société Asiatique, 1947).

Valente, Luisa. *Logique et théologie: les écoles parisiennes entre 1150 et 1220* (Paris: Vrin, 2008).

"'*Talia sunt subiecta qualia praedicata permittunt*,' Le principe de l'approche contextuelle et sa genèse dans la théologie du XIIᵉ siècle," in J. Biard and I. Rosier-Catch (eds.) *La tradition médiévale des catégories (XIIᵉ–XVᵉ siècles)* (Leuven: Peeters, 2003) 289–311.

Valls i Taberner, Ferran. *San Ramón de Penyafort* (Barcelona: Editorial Labor, 1936; repr. 1979).

Valois, Noël. *Guillaume d'Auvergne, évêque de Paris (1228–1249); sa vie et ses ouvrages* (Paris: Picard, 1880)

"Jean de Pouilli, théologien," *Histoire littéraire de la France* 34 (1914) 220–81.

"Jean Rigaud, frère mineur," *Histoire littéraire de la France* 34 (1914) 286–91

Van Bladel, Kevin. "Hermes Arabicus" (Ph.D. dissertation: Yale University, 2004).

Van den Eynde, Damien. *L'œuvre littéraire de Géroch de Reichersberg* (Rome: Pontificio Ateneo Antoniano, 1957).

Van der Heijden, Maarten and Bert Roest. *Franciscan Authors, 13th–18th Century: A Catalogue in Progress*: http://users.bart.nl/~roestb/franciscan/.

Van der Lecq, Ria. "William Heytesbury on 'Necessity'," in O. Lewry (ed.) *The Rise of British Logic* (Toronto: Pontifical Institute of Mediaeval Studies, 1983) 249–63.

Van Dyke, Christina. "An Aristotelian Theory of Divine Illumination: Robert Grosseteste's Commentary on the Posterior Analytics," *British Journal for the History of Philosophy* (forthcoming).

"Metaphysical Amphibians: Aquinas on the Individuation and Identity of Human Beings" (Ph.D. dissertation: Cornell University, 2000).

Van Engen, John (tr.). *Devotio Moderna: Basic Writings* (New York: Paulist Press, 1988).

Rupert of Deutz (Berkeley: University of California Press, 1983).

Van Esbroeck, Michel. "La version géorgienne de deux commentaires d'Ammonius fils d'Hermias," in G. Fiaccadori (ed.) *Autori classici in lingue del vicino e medio oriente* (Rome: Istituto poligrafico e Zecca dello Stato, Libreria dello Stato, 1990) 55–64.

van Ess, Josef. "Biobibliographische Notizen zur islamischen Theologie," *Die Welt des Orients* 9 (1978) 255–83.

"Ḍirār b. ʿAmr und die 'Cahmīya'," *Islam* 43 (1967) 241–79; 44 (1968) 1–70, 318–20.

Die Erkenntnislehre des ʿAḍudaddīn al-Īcī: Übersetzung und Kommentar des 1. Buches seiner Mawaqif (Wiesbaden: Steiner, 1966).

The Flowering of Muslim Theology, tr. J. M. Todd (Cambridge, MA: Harvard University Press, 2006).

Theologie und Gesellschaft im 2. und 3. Jahrhundert Hidschra: eine Geschichte des religiosen Denkens im fruhen Islam (Berlin: De Gruyter, 1991–7).

Theology and Science: The Case of Abū Isḥāq an-Naẓẓām (Ann Arbor: University of Michigan Press, 1978).

"Wrongdoing and Divine Omnipotence in the Theology of Abū Isḥāq an-Naẓẓām," in T. Rudavsky (ed.) *Divine Omniscience and Omnipotence in Medieval Philosophy: Islamic, Jewish, and Christian Perspectives* (Dordrecht: Reidel, 1985) 53–67.

Van Gelder, G. J. H. "Ancients and Moderns," in G. Krämer *et al.* (eds.) *Encyclopaedia of Islam*, 3rd edn (Leiden: Brill Online, 2008).

Vanhamel, Willy (ed.). *Henry of Ghent: Proceedings of the International Colloquium on the Occasion of the 700th Anniversary of His Death (1293)* (Leuven: Leuven University Press, 1996).

Van Hove, Alphonse. *Commentarium Lovaniense in codicem iuris canonici*, 2nd edn (Mechelen: Dessain, 1930).

Van Leeuwen, Henry. *The Problem of Certainty in English Thought: 1630–1690* (The Hague: Nijhoff, 1970).

Vanneste, Alfred. "La théologie de la pénitence chez quelques maîtres parisiens de la première moitié du xiiiᵉ siècle," *Ephemerides Theologicae Lovanienses* 28 (1952) 24–58.

Van Neste, Roy. "The Epistemology of John of Mirecourt: A Reinterpretation," *Citeaux* 27 (1976) 5–28.

Vanni Rovighi, Sofia. *L'immortalità dell'anima nei maestri francescani del secolo XIII* (Milan: Vita e Pensiero, 1936).

"La psicologia di Taddeo da Parma," *Rivista di Filosofia Neoscolastica* 23 (1931) 504–12.

Van Roo, William. *Grace and Original Justice according to St Thomas* (Rome: Gregorian University, 1955).

Vansteenberghe, Edmond. *Le Cardinal Nicolas de Cues* (Paris: Champion, 1920; repr. Frankfurt: Minerva, 1963).

Van Steenberghen, Fernand. *Maître Siger de Brabant* (Leuven: Publications universitaires, 1977).
La philosophie au XIIIe siècle, 2nd edn (Louvain-la-Neuve: Institut Supérieur de Philosophie, 1991).
Le problème de l'existence de Dieu dans les écrits de S. Thomas d'Aquin (Louvain-la-Neuve: Institut Supérieur de Philosophie, 1980)
St. Thomas Aquinas and Radical Aristotelianism (Washington, DC: Catholic University of America Press, 1980).

Van't Spijker, Ienje. *Fictions of the Inner Life: Religious Literature and Formation of the Self in the Eleventh and Twelfth Centuries* (Turnhout: Brepols, 2004).

Van Veldhuijsen, Peter. "The Question on the Possibility of an Eternally Created World: Bonaventura and Thomas Aquinas," in J. B. M. Wissink (ed.) *The Eternity of the World in the Thought of Thomas Aquinas and his Contemporaries* (Leiden: Brill, 1990) 20–38.

Vasalou, Sophia. "Equal Before the Law: The Evilness of Human and Divine Lies: ʿAbd al-Ǧabbār's Rational Ethics," *Arabic Sciences and Philosophy* 13 (2003) 243–68.

Veit, Raphaela. *Das Buch der Fieber des Isaac Israeli und seine Rezeption im lateinischen Westen: ein Beitrag zur Rezeption arabischer Wissenschaft im Abendland* (Stuttgart: Steiner, 2003).

Veliath, Dominic. "The Scotism of William of Alnwick in his *Determinationes de anima*," *Salesianum* 32 (1970) 93–134.

Verbeke, Gerard *et al.* (eds.). *Corpus latinum commentariorum in Aristotelem Graecorum* (Leuven: Publications universitaires, 1957–).

Verdeyen, Paul. *Guillaume de Saint-Thierry, premier auteur mystique des anciens Pays Bas* (Turnhout: Brepols, 2003).
La théologie mystique de Guillaume de Saint-Thierry (Paris: FAC-éditions, 1990).

Verger, Jacques. *Les universités au moyen âge* (Paris: Presses universitaires de France, 1973).

Verpeaux, Jean. *Nicéphore Choumnos: homme d'état et humaniste byzantin (ca.1250/1255–1327)* (Paris: Picard, 1959).

Verweij, Michiel. "The Manuscript Transmission of the Summa de virtutibus by Guillelmus Peraldus. A Preliminary Survey of the Manuscripts," *Medioevo* 31 (2006) 103–298.

Vetulani, Adam. *Sur Gratien et les Décrétales*, ed. W. Uruszczak (Aldershot: Variorum, 1990).

Veuthey, Léon. "Alexandre d'Alexandrie, maître de Paris et ministre général des frères mineurs," *Études Franciscaines* 43 (1931) 145–76, 319–44; 44 (1932) 21–42, 193–207, 321–36, 429–67.

Vial, Marc. *Jean Gerson: théoricien de la théologie mystique* (Paris: Vrin, 2006).

Vignaux, Paul. "Un accès philosophique au spirituel: l'averroisme chez Jean de Ripa et Paul de Venise," *Archives de philosophie* 51 (1988) 385–400.
"Le concept de Dieu chez Jean de Ripa," in A. Maierú (ed.) *Studi sul XIV sec. in memoria di Anneliese Maier* (Rome: Edizioni di Storia e Letteratura, 1981) 453–97.
"L'être comme perfection selon François de Meyronnes," in *Études d'histoire littéraire et doctrinale* (Montréal: Institut d'études médiévales, 1962) 259–318.
Justification et prédestination au XIVe siècle: Duns Scot, Pierre d'Auriole, Guillaume d'Occam, Grégoire de Rimini (Paris: Leroux, 1934; repr. Paris: Vrin, 1981).
Nominalisme au xive siècle (Montréal: Institut d'études médiévales, 1948; repr. Paris: Vrin, 1981).
"Note sur le concept de forme intensive dans l'œuvre de Jean de Ripa," *Mélanges Alexandre Koyré* (Paris: Hermann, 1964) I: 517–26.

'La preuve ontologique chez Jean de Ripa (I Sent. Dist. II Qu. I)', in H. Kohlenberger (ed.) *Die Wirkungsgeschichte Anselms von Canterbury* (Frankfurt: Minerva, 1975) 173–94.

Vilém, Herold. "Der Streit zwischen Hieronymus von Prag und Johann Gerson: eine spätmittelalterliche Diskussion mit tragischen Folgen," in Z. Włodek (ed.) *Société et église: textes et discussions dans les universités au moyen âge tardif* (Turnhout: Brepols, 1995) 77–89.

Viller, Marcel, Gaetano Raciti, and Aimé Solignac (eds.). *Dictionnaire de spiritualité ascétique et mystique, doctrine et histoire* (Paris: Beauchesne, 1937–95).

Villey, Michel. *Le droit et les droits de l'homme* (Paris: Presses universitaires de France, 1983).

La formation de la pensée juridique modern, 4th edn (Paris: Montchrestien, 1975) 225–62.

Vineis, Edoardo. "La linguistica medievale: linguistica e grammatical," in G. Lepschy (ed.) *Storia della linguistica* (Bologna: Il Mulino, 1990) II: 11–101.

Visser, Sandra and Thomas Williams. "Anselm's Account of Freedom," in B. Davies and B. Leftow (eds.) *The Cambridge Companion to Anselm* (Cambridge: Cambridge University Press, 2004) 179–203.

Vitali, Mari and Zdzislaw Kuksewicz. "Notes sur les deux rédactions des *Quaestiones de anima* de Jean de Jandun," *Mediaevalia Philosophica Polonorum* 27 (1984) 3–24.

Vittorini, Marta. "La teoria delle idee di Pietro d'Aquila ed i suoi fondamenti ontologici," in M. Carbajo Núñez (ed.) *Giovanni Duns Scoto: studi e ricerche nel VII centenario della sua morte in onore di P. César Saco Alarcón* (Rome: PAA – Edizioni Antonianum, 2008) II: 213–55.

Völker, Walther. *Die Sakramentmystik des Nikolaus Kabasilas* (Wiesbaden: Steiner, 1977).

Volz, Walter. *Die Lehre des Johannes de Bassolis von den Produktionen in Gott: ein Vergleich mit der Lehre des Johannes Duns Scotus* (Munich, 1969).

von den Brincken, Anna-Dorothee. "Geschichtsbetrachtung bei Vincenz von Beauvais: die *Apologia Actoris* zum *Speculum Maius*," *Deutsches Archiv für Erforschung des Mittelalters* 34 (1978) 410–99.

von Savigny, Friedrich Carl. *Geschichte des römischen Rechts im Mittelalter*, 2nd edn (Heidelberg: Mohr, 1834–51; repr. Bad Homburg: Gentner, 1961).

von Schulte, Johann Friedrich. *Geschichte der Quellen und Literatur des canonischen Rechts* (Stuttgart: Enke, 1875–80; repr. Graz: Akademische Druck, 1956).

Vorgrimler, Herbert. *Busse und Krankensalbung* (*Handbuch der Dogmengeschichte* IV.3) (Freiburg: Herder, 1978).

Vos, Antonie. *The Philosophy of John Duns Scotus* (Edinburgh: Edinburgh University Press, 2006).

Vuillaume, Christophe. "La connaissance de Dieu d'après Guillaume de Saint-Thierry," *Collectanea Cisterciensia* 57 (1995) 249–70.

Vuillemin-Diem, Gudrun. "Zum Aristoteles Latinus in den Fragmenten der Quaternuli des David von Dinant," *Archives d'histoire doctrinale et littéraire du moyen âge* 70 (2003) 27–136.

Vuillemin-Diem, Gudrun and Marwan Rashed. "Burgundio de Pise et ses manuscrits grecs d'Aristote: Laur. 87. 7. et Laur. 81. 18," *Recherches de théologie et philosophie médiévales* 64 (1997) 136–97.

Wada, Yoko (ed.). *A Companion to* Ancrene Wisse (Cambridge: Brewer, 2003).

Wagner, Claus. *Materie im Mittelalter: Edition und Untersuchungen zur Summa (II, 1) des Nikolaus von Strassburg OP* (Fribourg: Universitätsverlag, 1986).

Wahl, J.A. "Baldus de Ubaldis and the Foundations of the Nation-State," *Manuscripta* 21 (1977) 80–96.

Wakefield, Walter L. and Austin P. Evans. *Heresies of the High Middle Ages* (New York: Columbia University Press, 1969).

Wakelnig, Elvira. "Metaphysics in al-ʿĀmirī. The Hierarchy of Being and the Concept of Creation," *Medioevo* 32 (2007) 39–59.

Walbridge, John. "Suhrawardī and Illuminationism," in P. Adamson and R. Taylor (eds.) *The Cambridge Companion to Arabic Philosophy* (Cambridge: Cambridge University Press, 2005) 201–23.

Walker, Joel. *Legend of Mar Qardagh: Narrative and Christian Heroism in Late Antique Iraq* (Berkeley: University of California Press, 2006).

  "The Limits of Late Antiquity: Philosophy between Rome and Iran," *The Ancient World* 33 (2002) 45–69.

Walker, Paul E. "Abū Tammām and his *Kitāb al-shajara*: A New Ismāʿīlī Treatise from Tenth-Century Khurasan," *Journal of the American Oriental Society* 114 (1994) 343–52.

  Early Philosophical Shiism: The Ismāʿīlī Neoplatonism of Abū Yaʿqūb al-Sijistānī (Cambridge: Cambridge University Press, 1993).

  Ḥamīd al-Dīn al-Kirmānī: Ismaili Thought in the Age of al-Ḥākim (London: I. B. Tauris, 1999).

  "The Ismāʿīlīs," in P. Adamson and R. Taylor (eds.) *The Cambridge Companion to Arabic Philosophy* (Cambridge: Cambridge University Press, 2005) 72–91.

  "The Political Implications of al-Razi's Philosophy," in C. Butterworth (ed.) *The Political Aspects of Islamic Philosophy* (Cambridge, MA: Harvard University Press, 1992) 61–94.

Wallace, William. *The Scientific Methodology of Theodoric of Freiberg: A Case Study of the Relationship Between Science and Philosophy.* (Fribourg: Fribourg University Press, 1959).

Wallach, Luitpold. *Alcuin and Charlemagne: Studies in Carolingian History and Literature* (Ithaca, NY: Cornell University Press, 1959).

Wallerand, Gaston. "Henri Bate de Malines et saint Thomas d'Aquin," *Revue néoscolastique de philosophie* 36 (1934) 387–411.

Wallis, Faith. "The Church, the World and the Time. Prolegomena to a History of the Medieval 'Computus'," in M.-C. Deprez-Masson (ed.) *Normes et pouvoirs à la fin du moyen âge* (Montréal: Ceres, 1990) 15–29.

Walsh, James. "Buridan on the Connection of the Virtues," *Journal of the History of Philosophy* 24 (1986) 453–82.

  "The 'Expositions' of Thomas Gallus on the Pseudo-Dionysian Letters," *Archives d'histoire doctrinale et littéraire du moyen âge* 30 (1963) 199–220.

  "Some Relationships Between Gerald Odo's and John Buridan's Commentaries on Aristotle's 'Ethics'," *Franciscan Studies* 35 (1975) 237–75.

Walsh, Katherine. *Richard FitzRalph in Oxford, Avignon, and Armagh: A Fourteenth-Century Scholar and Primate* (Oxford: Clarendon Press, 1981).

Walsham, Alexandra. *Providence in Early Modern England* (Oxford: Oxford University Press, 1999).

Walzer, Michael. *Just and Unjust Wars: A Moral Argument with Historical Illustrations*, 4th edn (New York: Basic Books, 2006).

Walzer, Richard. *Greek into Arabic: Essays on Islamic Philosophy* (Cambridge, MA: Harvard University Press, 1962).

Ward, Benedicta. *Miracles and the Medieval Mind*, rev. edn (Philadelphia: University of Pennsylvania Press, 1987).

  The Venerable Bede (Harrisburg, PA: Morehouse, 1990).

Wassermann, D. *Dionysius der Kartäuser: Einführung in Werk und Gedankenwelt* (Salzburg: Institut für Anglistik and Amerikanistik, 1996).

Watson, Nicholas. "Middle English Mystics," in D. Wallace (ed.) *The Cambridge History of Medieval English Literature* (Cambridge: Cambridge University Press, 1999) 539–65.

  Richard Rolle and the Invention of Authority (Cambridge: Cambridge University Press, 1991).

Watt, Alan. "Which Approach? Late 20th Century Interpretations of Augustine on War," *Journal of Church and State* 46 (2004) 99–113.

Watt, John A. "Spiritual and Temporal Powers," in J. H. Burns (ed.) *The Cambridge History of Medieval Political Thought c.350–c.1450* (Cambridge: Cambridge University Press, 1988) 367–423.

    The Theory of Papal Monarchy in the Thirteenth Century: The Contribution of the Canonists (London: Burns and Oates, 1966).

Watt, John W. "Syriac Translators and Greek Philosophy in Early Abbasid Iraq," *Journal of the Canadian Society for Syriac Studies* 4 (2004) 15–26.

Watt, W. Montgomery. "Akīda," in H. A. R. Gibb *et al.* (eds.) *Encyclopaedia of Islam*, 2nd edn (Leiden: Brill, 1960–2004).

    The Formative Period of Islamic Thought (Edinburgh: Edinburgh University Press, 1973).

    Islamic Creeds (Edinburgh: Edinburgh University Press, 1994).

Watts, Edward. "Justinian, Malalas, and the End of Athenian Philosophical Teaching in A.D. 529," *Journal of Roman Studies* 94 (2004) 168–82.

    "Where to Live the Philosophical Life in the Sixth Century? Damascius, Simplicius, and the Return from Persia," *Greek, Roman, and Byzantine Studies* 45 (2005) 285–315.

Wawrykow, Joseph. *God's Grace and Human Action: "Merit" in the Theology of Thomas Aquinas* (Notre Dame, IN: University of Notre Dame Press, 1995).

Webb, C. C. J. *John of Salisbury* (London: Methuen, 1932; repr. New York: Russell and Russell, 1971).

Weber, Marie-Luise. *Die Gedichte des Gottschalk von Orbais* (New York: Lang, 1992).

Weber, Max. *The Theory of Social and Economic Organization*, tr. A. M. Henderson and T. Parsons (New York: Oxford University Press, 1947).

Weigand, Rudolf. *Die Naturrechtslehre der Legisten und Dekretisten von Irnerius bis Accursius und von Gratian bis Johannes Teutonicus* (Munich: Hueber, 1967).

    "Studien zum kanonistischen Werk Stephans von Tournai," *Zeitschrift der Savigny-Stiftung für Rechtsgeschichte, kanonistische Abteilung* 72 (1986) 349–61.

    Vinzenz von Beauvais: Scholastische Universalchronistik als Quelle volkssprachiger Geschichtsschreibung (Hildesheim: Olms, 1991).

Weijers, Olga. *La "disputatio" à la Faculté des arts de Paris (1200–1350 environ). Esquisse d'une typologie* (Turnhout: Brepols, 1995).

    La "disputatio" dans les Facultés des arts au moyen âge (Turnhout: Brepols 2002).

    Le travail intellectuel à la Faculté des arts de Paris: textes et maîtres (ca. 1200–1500) (Turnhout: Brepols, 1994–).

Weijers, Olga and Louis Holtz (eds.). *L'enseignement des disciplines à la Faculté des arts, Paris et Oxford, XIIIe–XVe siècles: actes du colloque international* (Turnhout: Brepols, 1997).

Weiler, A. G. "Un traité de Jean de Nova Domo sur les universaux," *Vivarium* 6 (1968) 108–54.

Weinberg, J. R. *Nicolaus of Autrecourt. A Study in 14th Century Thought* (Princeton, NJ: Princeton University Press, 1948; repr. New York: Greenwood Press, 1969).

Weisheipl, James A. *Albertus Magnus and the Sciences: Commemorative Essays, 1980* (Toronto: Pontifical Institute of Mediaeval Studies, 1980).

    "Albertus Magnus and Universal Hylomorphism: Avicebron," in F. Kovach and R. Shahan (eds.) *Albert the Great Commemorative Essays* (Norman: University of Oklahoma Press, 1980) 239–60.

    "Curriculum of the Faculty of Arts at Oxford in the Early Fourteenth Century," *Mediaeval Studies* 26 (1964) 143–85.

    "Early Fourteenth-Century Physics of the Merton 'School' with Special Reference to Dumbleton and Heytesbury" (D.Phil. dissertation: University of Oxford, 1956).

    "Ockham and some Mertonians," *Mediaeval Studies* 30 (1968) 163–213.

"The Parisian Faculty of Arts in Mid-Thirteenth Century: 1240–1270," *American Benedictine Review* 25 (1974) 200–17.

"The Place of John Dumbleton in the Merton School," *Isis* 50 (1959) 439–54.

"Repertorium Mertonense," *Mediaeval Studies* 31 (1969) 174–224.

"Roger Swyneshed, OSB, logician, natural philosopher, and theologian," in *Oxford Studies Presented to Daniel Callus* (Oxford: Clarendon Press, 1964) 231–52.

Weisser, Ursula. *Das "Buch über das Geheimnis der Schöpfung" von Pseudo-Apollonios von Tyana* (Berlin: De Gruyter, 1980).

Wels, Henrik. *Aristotelisches Wissen und Glauben im 15. Jahrhundert: ein anonymer Kommentar zum Pariser Verurteilungsdekret von 1277 aus dem Umfeld des Johannes de Nova Domo: Studie und Text* (Amsterdam: Grüner, 2004).

Welter, Jean Thiébaut. *L'exemplum dans la littérature religieuse et didactique du Moyen Age* (Paris: Occitania, 1927).

Wengert, R. G. "Three Senses of Intuitive Cognition: A Quodlibetal Question of Harvey of Nedellec," *Franciscan Studies* 43 (1983) 408–31.

Wensinck, A. J. *The Muslim Creed: Its Genesis and Historical Development* (Cambridge: Cambridge University Press, 1932; repr. London: Cass, 1965).

Wenzel, Siegfried. "The Continuing Life of William Peraldus's *Summa vitiorum*," in M. D. Jordan and K. Emery (eds.) *Ad Litteram: Authoritative Texts and Medieval Readers* (Notre Dame, IN: University of Notre Dame Press, 1992) 135–64.

"The Seven Deadly Sins: Some Problems of Research," *Speculum* 43 (1968) 1–22.

West, Delno and Sandra Zimdars-Swartz. *Joachim of Fiore: A Study in Spiritual Perception and History* (Bloomington, IN: Indiana University Press, 1983).

Westerink, L. G. "Proclus commentateur des *Vers d'Or*," in G. Bos and G. Seel (eds.) *Proclus et son influence* (Zurich: Éditions du Grand Midi, 1987) 62–78.

Wey, Joseph. "The *Sermo finalis* of Robert Holcot," *Mediaeval Studies* 11 (1949) 219–24.

White, Despina S. *Patriarch Photios of Constantinople: His Life, Scholarly Contributions, and Correspondence Together with a Translation of Fifty-Two of his Letters* (Brookline, MA: Holy Cross Orthodox Press, 1981).

White, Kevin. "The Quodlibeta of Thomas Aquinas in the Context of his Work," in C. Schabel (ed.) *Theological Quodlibets in the Middle Ages: The Thirteenth Century* (Leiden: Brill, 2006) 49–134.

"St. Thomas Aquinas and the Prologue to Peter of Auvergne's *Quaestiones super De sensu et sensato*," *Documenti e studi* 1 (1990) 427–56.

Whittingham, Martin. *Al-Ghazali and the Quran: One Book, Many Meanings* (London: Routledge, 2007).

Wieland, George. "Plato or Aristotle – A Real Alternative in Medieval Philosophy?," in J. F. Wippel (ed.) *Studies in Medieval Philosophy* (Washington, DC: Catholic University of America Press, 1987) 63–83.

Wielgus, Stanislaw (ed.). *Marsilius von Inghen: Werk und Wirkung.* (Lublin: Akten des Zweiten Internationalen Marsilius-von-Inghen-Kongresses, 1993).

Wielockx, Robert, "Autour du procès de Thomas d'Aquin," in A. Zimmermann (ed.) *Thomas von Aquin: Werk und Wirkung im Licht neuerer Forschungen* (Berlin: De Gruyter, 1988) 413–38.

"Henry of Ghent," in J. J. E. Gracia and T. Noone (eds.) *A Companion to Philosophy in the Middle Ages* (Oxford: Blackwell, 2003) 296–304.

"Le ms. Paris Nat. lat. 16096 et la condamnation du 7 mars 1277," *Recherches de théologie ancienne et médiévale* 48 (1981) 227–37.

Wilks, Ian. "Peter Abelard and his Contemporaries," in D. M. Gabbay and J. Woods (eds.) *Handbook to the History of Logic*, vol. II: *Mediaeval and Renaissance Logic* (Amsterdam: North-Holland, 2008) 83–156.

"Peter Abelard and the Metaphysics of Essential Predication," *Journal of the History of Philosophy* 36 (1998) 356–85.

Wilks, Michael. *The Problem of Sovereignty in the Later Middle Ages; The Papal Monarchy with Augustinus Triumphus and the Publicists* (Cambridge: Cambridge University Press, 1963).

"Reformatio Regni: Wyclif and Hus as Leaders of Religious Protest Movements," *Studies in Church History* 9 (1972) 109–30.

(ed.). *The World of John of Salisbury* (Oxford: Blackwell, 1984).

Wyclif: Political Ideas and Practice, ed. A. Hudson (Oxford: Oxbow Books, 2000).

Willard, Charity Canon. *Christine de Pizan: Her Life and Works* (New York: Persea Books, 1984).

Williams, Thomas (ed.). *The Cambridge Companion to Duns Scotus* (Cambridge: Cambridge University Press, 2003).

"From Metaethics to Action Theory," in T. Williams (ed.) *The Cambridge Companion to Duns Scotus* (Cambridge: Cambridge University Press, 2003) 332–51.

Williams, Thomas and Sandra Visser. *Anselm* (Oxford: Oxford University Press, 2008).

Wilson, Curtis. *William Heytesbury: Medieval Logic and the Rise of Mathematical Physics* (Madison, WI: University of Wisconsin Press, 1956; repr. 1960).

Wilson, Gordon. "The Critique of Thomas Aquinas's Unicity Theory of Forms in John Peckam's Quodlibet IV (Romanum)," *Franciscan Studies* 56 (1998) 423–31.

Windeatt, Barry. *English Mystics of the Middle Ages* (Cambridge: Cambridge University Press, 1994).

Winroth, Anders. *The Makings of Gratian's Decretum* (Cambridge: Cambridge University Press, 2000).

Winship, Michael. *Seers of God: Puritan Providentialism in the Restoration and Early Enlightenment* (Baltimore, MD: Johns Hopkins University Press, 1996).

Wippel, John F. "The Dating of James of Viterbo's Quodlibet I and Godfrey of Fontaines' Quodlibet VIII," *Augustiniana* 24 (1974) 348–86.

"Godfrey of Fontaines and Henry of Ghent's Theory of Intentional Distinction Between Essence and Existence," in T. W. Köhler (ed.) *Sapientiae procerum amore: mélanges médiévistes offerts à Dom Jean-Pierre Müller* (Rome: Editrice Anselmiana, 1974) 289–321.

"Godfrey of Fontaines at the University of Paris in the Last Quarter of the Thirteenth Century," in J. Aertsen *et al.* (eds.) *Nach der Verurteilung von 1277: Philosophie und Theologie an der Universität von Paris im letzten Viertel des 13. Jahrhunderts: Studien und Texte* (Berlin: De Gruyter, 2001) 359–89.

"Godfrey of Fontaines' Quodlibet XIV on Justice as a General Virtue: Is It Really a Quodlibet?," in C. Schabel (ed.) *Theological Quodlibets in the Middle Ages: The Thirteenth Century* (Leiden: Brill, 2006) 287–344.

"James of Viterbo on the Essence–Existence Relationship (Quodlibet 1, q. 4), and Godfrey of Fontaines on the Relationship between Nature and Supposit (Quodlibet 7, q. 5)," in *Sprache und Erkenntnis im Mittelalter* (Berlin: De Gruyter, 1981) 777–87.

The Metaphysical Thought of Godfrey of Fontaines: A Study in Late Thirteenth-Century Philosophy (Washington, DC: Catholic University of America Press, 1981).

The Metaphysical Thought of Thomas Aquinas: From Finite Being to Uncreated Being (Washington, DC: Catholic University of America Press, 2000).

"Metaphysics and *Separatio* according to Thomas Aquinas," *Review of Metaphysics* 31 (1978) 431–70.

"The Parisian Condemnations of 1270 and 1277," in J. J. E. Gracia and T. Noone (eds.) *A Companion to Philosophy in the Middle Ages* (Oxford: Blackwell, 2003) 65–73.

"Possible Sources for Godfrey of Fontaines' Views on the Act-Potency Composition of Simple Creatures," *Mediaeval Studies* 44 (1984) 222–44.

"The Relationship Between Essence and Existence in Late Thirteenth-Century Thought: Giles of Rome, Henry of Ghent, Godfrey of Fontaines, and James of Viterbo," in P. Morewedge (ed.) *Philosophies of Existence Ancient and Medieval* (New York: Fordham University Press, 1982) 131–64.

"Thomas Aquinas and the Condemnation of 1277," *Modern Schoolman* 72 (1995) 233–72.

"Thomas Aquinas and Siger of Brabant on Being and the Science of Being as Being," *Modern Schoolman* 82 (2005) 143–68.

"Thomas Aquinas' Derivation of the Aristotelian Categories (Predicaments)," *Journal of the History of Philosophy* 25 (1987) 13–34.

Wippel, John F. and Allan B. Wolter (eds.). *Medieval Philosophy: From St. Augustine to Nicholas of Cusa* (New York: Free Press, 1969).

Wirszubski, Chaim. *Libertas as a Political Idea at Rome during the Late Republic and Early Principate* (Cambridge: Cambridge University Press, 1950).

Wisnovsky, Robert (ed.). *Aspects of Avicenna* (Princeton, NJ: Markus Wiener, 2001).

"Avicenna and the Avicennian Tradition," in P. Adamson and R. Taylor (eds.) *The Cambridge Companion to Arabic Philosophy* (Cambridge: Cambridge University Press, 2005) 92–136.

Avicenna's Metaphysics in Context (Ithaca, NY: Cornell University Press, 2003).

"The Nature and Scope of Arabic Philosophical Commentary in Post-Classical (*ca.* 1100–1900 AD) Islamic Intellectual History: Some Preliminary Observations," in P. Adamson *et al.* (eds.) *Philosophy, Science and Exegesis in Greek, Arabic and Latin Commentaries* (London: Institute of Classical Studies, 2004) II: 149–91.

"One Aspect of the Avicennian Turn in Sunnī Theology," *Arabic Sciences and Philosophy* 14 (2004) 65–100.

"Towards a History of Avicenna's Distinction between Immanent and Transcendent Causes," in D. C. Reisman and A. H al-Rahīm (eds.) *Before and after Avicenna* (Leiden: Brill, 2003) 49–68.

Wittwer, Roland. *Sextus Latinus: die erste lateinische Übersetzung von Sextus Empiricus' Pyrrhoneioi Hypotyposeis* (Leiden: Brill, forthcoming).

Włodek, Zofia. "Le commentaire de Nicolas d'Amsterdam sur le *De anima* d'Aristote. Introduction, textes inédits," *Mediaevalia Philosophica Polonorum* 11 (1963) 23–42.

Wohlhaupter, Eugen. *Aequitas Canonica: eine studie aus dem kanonischen Recht* (Paderborn: Schöningh, 1931).

Wohlman, Avital. *L'homme, le monde sensible et le péché dans la philosophie de Jean Scot Erigène* (Paris: Vrin, 1987).

Wolf, Georges. "La préface perdue des sermons de Raoul Ardent, chapelain de Richard Ier," *Archives d'histoire doctrinale et littéraire du moyen âge* 42 (1979) 35–9.

Wolfson, Elliot. *Abraham Abulafia – Kabbalist and Prophet: Hermeneutics, Theosophy and Theurgy* (Los Angeles: Cherub Press, 2000).

Wolfson, Harry A. *Crescas' Critique of Aristotle* (Cambridge, MA: Harvard University Press, 1929).

"The Internal Senses in Latin, Arabic, and Hebrew Philosophical Texts," *Harvard Theological Review* 28 (1935) 69–133.

"Joseph Ibn Saddik on Divine Attributes," *Jewish Quarterly Review* 55 (1965) 277–98.

"Meaning of Ex Nihilo in Isaac Israeli," *Jewish Quarterly Review* 50 (1959) 1–12.

"Notes on Isaac Israeli's Internal Senses," *Jewish Quarterly Review* 51 (1961) 275–87.

The Philosophy of the Kalam (Cambridge, MA: Harvard University Press, 1976).

"Plan for the Publication of a *Corpus commentariorum Averrois in Aristotele,*" *Speculum* 6 (1931) 412–27.

"Revised Plan for the Publication of a *Corpus commentariorum Averrois in Aristotele,*" *Speculum* 38 (1963) 88–104.

Wolter, Allan B. (ed.). *Duns Scotus*, special issue of *American Catholic Philosophical Quarterly*, 67 (1993).

"The Formal Distinction," in J. Ryan and B. Bonansea (eds.) *John Duns Scotus, 1265–1965* (Washington, DC: Catholic University of America, 1965) 45–60.

The Philosophical Theology of John Duns Scotus, ed. M. M. Adams (Ithaca, NY: Cornell University Press, 1990).

Wood, Diana. *Clement VI: The Pontificate and Ideas of an Avignon Pope* (Cambridge: Cambridge University Press, 1989).

Medieval Economic Thought (Cambridge: Cambridge University Press, 2002).

Wood, Rega. "Adam Wodeham on Sensory Illusions," *Traditio* 38 (1982) 214–52.

"Distinct Ideas and Perfect Solitude: Alexander of Hales, Richard Rufus and Odo Rigaldus," *Franciscan Studies* 53 (1993) 7–46.

Ockham on the Virtues (West Lafayette, IN: Purdue University Press, 1997).

"Richard Rufus of Cornwall and Aristotle's Physics," *Franciscan Studies* 53 (1992) 247–81.

"Richard Rufus of Cornwall on Creation: The Reception of Aristotelian Physics in the West," *Medieval Philosophy and Theology* 2 (1992) 1–30.

"Richard Rufus: Physics at Paris before 1240," *Documenti e studi sulla tradizione filosofica medievale* 5 (1994) 87–127.

"Richard Rufus's *De anima* Commentary: The Earliest Known, Surviving, Western *De anima* Commentary," *Medieval Philosophy and Theology* 10 (2001) 119–56.

"Richard Rufus's *Speculum animae*: Epistemology and the Introduction of Aristotle in the West," in A. Speer (ed.) *Die Bibliotheca Amploniana ihre Bedeutung im Spannungsfeld von Aristotelismus, Nominalismus und Humanismus* (Leiden: Brill, 1995) 86–109.

"Walter Burley on Motion in a Vacuum," *Traditio* 45 (1989–90) 191–217.

"Walter Burley's *Physics Commentaries,*" *Franciscan Studies* 44 (1984) 275–327.

"Willing Wickedly: Ockham and Burley Compared," *Vivarium* 37 (1999) 72–93.

"The Works of Richard Rufus: The State of the Question in 2008," *Recherches de théologie et philosophie médiévales* 76 (2009) 1–73.

Wood, Rega and Robert Andrews. "Causality and Demonstration: An Early Scholastic *Posterior Analytics* Commentary," *The Monist* 79 (1996) 325–56.

Wood, Rega, Ludger Honnefelder, and Mechthild Dreyer (eds.). *John Duns Scotus: Metaphysics and Ethics* (Leiden: Brill, 1996).

Wood, Rega and Michael Weisberg. "Interpreting Aristotle on Mixture: Problems about Elemental Composition from Philoponus to Cooper," *Studies in the History and Philosophy of Science* 35 (2004) 698–704.

Woodhouse, C. M. *George Gemistos Plethon: The Last of the Hellenes* (Oxford: Clarendon Press, 1986).

Woolf, Cecil. N. S. *Bartolus of Sassoferrato: His Position in the History of Medieval Political Thought* (Cambridge: Cambridge University Press, 1913).

Workman, H. B. *John Wyclif: A Study of the English Medieval Church* (Oxford: Clarendon Press, 1926).

Xiberta, Bartolomeu Maria. *De scriptoribus scholasticis saeculi XIV ex ordine Carmelitarum* (Leuven: Bureaux de La Revue, 1931).

Guiu Terrena: Carmelita de Perpinyà (Barcelona: Institució Patxot, 1932).

Yates, Frances. "The Art of Ramon Lull," *Journal of the Warburg and Courtauld Institutes* 17 (1954) 115–73.

Yokoyama, Tetsuo. "Simon of Faversham's *Sophisma: 'Universale est intentio'*," *Mediaeval Studies* 31 (1969) 1–14.

Yousef, Muḥammad ʿAlī Hajj. *Ibn ʿArabī – Time and Cosmology* (London: Routledge, 2007).

Ypma, Eelcko. "Recherches sur la carrière scolaire et la bibliothèque de Jacques de Viterbe +1308," *Augustiniana* 24 (1974) 247–82.

"Recherches sur la productivité littéraire de Jacques de Viterbe jusqu'à 1300," *Augustiniana* 25 (1975) 223–82.

Yrjönsuuri, Mikko. "Duties, Rules and Interpretations in Obligational Disputations," in M. Yrjönsuuri (ed.) *Medieval Formal Logic* (Dordrecht: Kluwer, 2001) 3–34.

"*Expositio* as A Method of Solving Sophisms," in S. Read (ed.) *Sophisms in Medieval Logic and Grammar: Acts of the Ninth European Symposium for Medieval Logic and Semantics* (Dordrecht: Kluwer, 1993) 202–16.

"Words and Things in Peter of Spain's *Syncategoreumata*," in I. Angelelli *et al.* (eds.) *Medieval and Renaissance Logic in Spain* (Hildesheim: Olms, 2000) 3–19.

Zagzebski, Linda. *The Dilemma of Freedom and Foreknowledge* (Oxford: Oxford University Press, 1991).

Zainaty, Georges. *La morale d'Avempace* (Paris: Vrin, 1979).

Zalta, Edward N. (ed.). *The Stanford Encyclopedia of Philosophy* (1997–): http://plato.stanford.edu/.

Zanin, Fabio. "Francis of Marchia, *Virtus derelicta*, and Modifications of the Basic Principles of Aristotelian Physics," *Vivarium* 44 (2006) 81–95.

Zavalloni, Roberto. *Richard de Mediavilla et la controverse sur la pluralité des formes* (Leuven: Éditions de l'Institut Supérieur de Philosophie, 1951).

Zawart, Anscar. *The History of Franciscan Preaching and of Franciscan Preachers (1290–1927): A Bio-bibliographical Study* (New York: Wagner, 1928).

Ziai, Hossein. *Knowledge and Illumination: A Study of Suhrawardī's* Ḥikmat al-ishrāq (Atlanta, GA: Scholars Press, 1990).

Ziegler, Josef. *Die Ehelehre der Pönitentialsummen von 1200–1350* (Regensburg: Pustet, 1956).

Medicine and Religion, c. 1300: The Case of Arnau de Vilanova (New York: Oxford University Press, 1998).

Zimmermann, Albert. *Albert der Große. Seine Zeit, sein Werk, seine Wirkung* (Berlin: De Gruyter, 1981).

"Ein Averroist des späten 13. Jahrhunderts: Ferrandus de Hispania," *Archiv für Geschichte der Philosophie* 50 (1968) 145–64.

"Bemerkungen zum Physikkommentar des William of Clifford," in J. Marenbon (ed.) *Aristotle in Britain during the Middle Ages* (Turnhout: Brepols, 1996) 299–310.

"Die Kritik an Thomas von Aquin in Metaphysikkommentar des Ferrandus de Hispania," in *Atti del Congresso Internazionale: Tommaso d'Aquino nel suo settimo centenario* (Naples: Edizioni domenicane italiane, 1976) II: 259–67.

Ontologie oder Metaphysik: Die Diskussion über den Gegenstand der Metaphysik im 13. und 14. Jahrhundert: Texte und Untersuchungen (Leuven: Peeters, 1998).

"Some Aspects of the Reception of Aristotle's Physics and Metaphysics in the Thirteenth Century," in M. Jordan and K. Emery (eds.) *Ad litteram: Authoritative Texts and their Medieval Readers* (Notre Dame, IN: University of Notre Dame Press, 1992) 217–27.

Zink, Michel. "La rhétorique honteuse et la convention du sermon *ad status* à travers la *summa de arte praedicatoria* d'Alan de Lille," in H. Roussel and F. Suard (eds.) *Alain de Lille, Gautier de Châtillon, Jakemart Giélée et leur temps* (Lille: Presses universitaires de Lille, 1978) 133–70.

Zoubov, Vasilii. "Walter Catton, Gérard d'Odon et Nicolas Bonet," *Physis* 1 (1959) 261–78.

Zuckerman, Charles. "Some Texts of Bernard of Auvergne on Papal Power," *Recherches de théologie ancienne et médiévale* 49 (1982) 174–204.

Zuckerman, Constantine. "A Repertory of Published Armenian Translations of Classical Texts," in G. Fiaccadori (ed.) *Autori classici in lingue del vicino e medio oriente* (Rome: Istituto poligrafico e Zecca dello Stato, Libreria dello Stato, 2001) 415–48.

Zumkeller, Adolar. "Der Augustinertheologe Johannes Hiltalingen von Basel (†1392) über Urstand, Erbsünde, Gnade und Verdienst," *Analecta Augustiniana* 43 (1980) 59–162.

Hugolin von Orvieto und seine theologische Erkenntnislehre (Würzburg: Rita, 1941).

Zupko, Jack. *John Buridan: Portrait of a Fourteenth-Century Arts Master* (Notre Dame, IN: University of Notre Dame Press, 2003).

"On Certitude," in J. M. M. H. Thijssen and J. Zupko (eds.) *The Metaphysics and Natural Philosophy of John Buridan* (Leiden: Brill, 2001) 165–82.

Zwiercan, Marian. "Note sur deux manuscrits du commentaire de Godefroid d'Aspale sur la Physique d'Aristote," *Mediaevalia Philosophica Polonorum* 10 (1961) 103–9.