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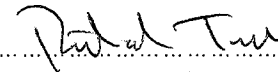
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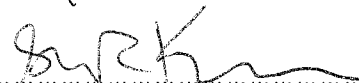
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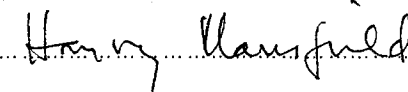
“The Invention of Political Science”

presented by **Noah I. Dauber**

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Date: **May 22, 2006**

The Invention of Political Science

A thesis presented

by

Noah Dauber

to

The Department of Government

in partial fulfillment of the requirements
for the degree
Doctor of Philosophy
in the subject of
Political Science

Harvard University
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The Invention of Political Science

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Abstract

This dissertation tells the story of how political philosophy became a science between the thirteenth and the seventeenth century. Unlike the standard account which opposes an early conception of political knowledge as a kind of practical or skill knowledge to a later conception of political knowledge as a theoretical science, it is argued that there was a theoretical science of politics from the thirteenth century on, after politics was adopted as a subject fit for university teaching.

The change in the conception of political science over this period came thus not from its formulation as a theoretical discipline but through its relationship to natural philosophy and medicine. The dissertation shows how conceptions of political science came to resemble natural philosophy more and more over this period. At first, authors such as Albert the Great were concerned that the new theoretical explanatory science of politics not resemble natural philosophy. Albert's insistence that such a science be explanatory as well as ethical led to his criticism of the method of the best regime and an appreciation of empiricism. These themes, it is argued, were echoed in the Florentine Renaissance, where thinkers such as Machiavelli and Guicciardini are shown to be more continuous with the thinking of the thirteenth century than usually realized.

The position which conceived of politics (and human action more generally) as distinct from natural phenomena and its study thus distinct from that of natural

philosophy gradually gave way over the sixteenth century. This transformation is especially visible in the context of astrological explanations of political behavior, which discussed politics in terms of the natural philosophy of the day. Astrological explanation introduced efficient and material cause explanation into politics, thus making it resemble natural philosophy more closely. This resemblance was also furthered by a group of professors of medicine in Germany who applied the methods of generalization about empirical phenomena to politics. These methods included “for the most part” reasoning, a forerunner of modern probabilistic methods. Taken together, this new sort of causal explanation of political behavior and the methods of empirical generalization constituted a new science of politics.

Acknowledgements

Many people have helped me along the way with the dissertation. The idea for the dissertation was first hatched in the basement of Littauer in discussion with Istvan Hont, who introduced me to the work of Hermann Conring and the Protestant Aristotelians. From time to time, in this Cambridge or that, his advice and encouragement has been invaluable. My longtime teacher Harvey Mansfield has been wonderfully encouraging over the years and has taught me to read carefully and to look out for ironies and subtleties in my sources, especially in the works of Machiavelli. Sharon Krause has always been supportive and generous with her time and advice, which I thank her for. I owe a great debt to Gisela Striker, who in conversation after conversation helped me make sense of Aristotle's practical reasoning, his views of science, fate, and many other issues. Her rigor and scholarship was a model for me in my discussion of many of the more technical issues in the dissertation and I cannot thank her enough for her time and generosity. Richard Tuck, the chair of my dissertation committee, has been a tremendous guide throughout the entire process. His influence on the themes and style of the dissertation will be obvious to anyone familiar with his work.

While writing the dissertation, I spent six months at the Max Planck Institute for the History of European Law in Frankfurt. In a sense much of the dissertation was written there, and the six months spent there was in some ways a complete education. I owe a great debt to Michael Stolleis for hosting me and the hospitality and guidance that he extended to me there. The institute is a great place to work and think and, it turns out, to make friends. The discussions I had and continue to have with the friends I made there, including Dorothee Gottwald, Lorenz Jellinghaus, Tilmann Röder, are an important part

of the education just mentioned. More recently, I have had the opportunity to make a new set of colleagues and friends in Fribourg, Switzerland. Christoph Flüeler, Marco Toste, and Lidia Lanza were the best of hosts and colleagues this January. I cannot thank them enough for their generosity with their scholarship and learning.

Luckily, I have been blessed with great colleagues and friends at home as well as abroad. Early on in graduate school, I shared my enthusiasm for questions in the philosophy of social science with Matt Stephenson, Amanda Friedenber, Ethan Bueno de Mesquita, James Fowler, and Eric Dickson. Many of the conversations we had then echo throughout the dissertation. A good deal of the dissertation was actually written thanks to the encouragement and efforts of Bruno Macaes, Verity Smith, and Annie Stiliz. Our weekly meetings in the summer of 2005 and occasional meetings thereafter were the best kind of work possible; exchanging writing with them has been one of the very best things about graduate school. Liz Mellyn and Leah Whittington have also been of great help, and their assistance with Renaissance and Latin matters much appreciated. In the last stretch, Emer O'Dwyer, Isaac Nakhimovsky, Charles Loeffler, and Eric Nelson have been the best of friends and colleagues. Their help at the oddest hours and at the slightest provocation improved the dissertation immeasurably.

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Introduction: The history of political science and the history of political thought

This dissertation tells the story of how political philosophy became a science between the thirteenth and the seventeenth century. As such, this story belongs as much to the history of science proper as to the history of political ideas, and before turning to the story itself, I would like to point out how the main themes and concerns of the story make it part and parcel of the history of science more generally. In particular, it mirrors many of the themes of the historiography of the scientific revolution in natural philosophy, such as the application of mathematical reasoning to phenomena, the adoption of a logic of discovery, the professionalization of knowledge, and the relationship between practical and theoretical knowledge. Indeed, what two prominent historians of medicine wrote about medicine in this period, could just have easily been written about political science:

The elite minority among medical practitioners who participated fully in the world of Latin academic learning had contact with transmitted texts of Greek and Arabic philosophy as well as medicine, but unlike scholastic natural philosophers they were also involved in a practical, technical activity. Perhaps as a result they were notably self-conscious about the relations in their discipline between authority and experience, theory and practice, the universal and the particular, and speculative philosophy and technical mastery.¹

In so far as political science is a science of human actions and institutions, however, its story has special concerns and themes which unite it more closely to the subsequent history of the social sciences than to the history of natural philosophy of its own age. For example, the authors we will consider are concerned with the possibility of forming general rules and the possibility of reconciling free choice and prediction.

¹ Michael R. McVaugh and Nancy G. Siraisi, "Introduction," *Osiris*, 2nd Series, 6 *Renaissance Medical Learning: Evolution of a Tradition* (1990), pp. 6-15, p. 8.

To say that this is the story of the invention of political science as a science, is to assume some definition of science. The definition used in this study is that used by the protagonists themselves. In general, when they spoke of science—and this is true of the entire period—they were referring to the kind of knowledge that Aristotle called *ἐπιστήμη* and his Latin interpreters called *scientia*.² Science understood as such was a kind of knowledge with a high degree of certainty, produced by a special kind of syllogism, called a demonstrative syllogism, which Aristotle described in his *Posterior Analytics*.³ This is the usual sense of science in the authors discussed here, and the story of the invention of political science is in large measure the story of the application of this standard of knowledge to political reflection.

The strict definition of science from the *Posterior Analytics*, then, relied on a logical framework of explanation with many requirements. Aristotle claimed in the *Posterior Analytics* that science was of eternal and changeless things. It could not be of particulars, since they change and pass away. Rather, there is only scientific knowledge of the genera of things, about which universal propositions can be framed. A science aims to state the essential properties of a genus through syllogisms which are universally quantified, contain a cause, and rely on self-evident principles known by intuition.⁴ All of these features will be of great importance in discussions of whether there can be a science of politics as we shall see.

² Aristotle, *Posterior Analytics*, 88b30, *Nicomachean Ethics*, 1139b18.

³ The *Analytics* was translated by the middle of the twelfth century, but did not attain its full importance until the 1230s. John Marenbon, *Later Medieval Philosophy, 1150-1350: An Introduction* (Florence, KY, 1991), p. 35-6.

⁴ Marenbon, *Later Medieval Philosophy*, p. 48.

In a more casual sense, however, a science is a subject taught at a university. Like the word *Wissenschaft* in German, *scientia* was a kind of knowledge especially suited to the university. In fact, in the thirteenth century, in the early days of the universities, the masters who taught in the universities made a practice of inquiring in the prologues to their commentaries whether a given discipline could be considered a science or not. When they did so, they used the definition from Aristotle's *Analytics*. By the sixteenth century, after the nature of the demonstrative syllogism had been studied in detail and found to be extraordinarily demanding, some professors admitted that many of their subjects did not satisfy the conditions of the definition. Others, however, continued to insist that it was the appropriate definition for science and was readily achievable by the disciplines of the day. It follows naturally that this study is concerned with the attitudes towards political knowledge expressed in the universities, given the close connection between the two. Thus most of the authors discussed in this study were university professors of one kind or another.⁵

The association of science with the universities natural raises the question of the connection between theory and practice. According to the standard account of the development of political science, political knowledge was transformed from a practical science to a theoretical one. This supposed trend is very disappointing to many activist scholars.⁶ But today there is a comfortable relationship between the practical and

⁵ An exception is made in the chapter on the political thought of Florence, in order to consider the works of writers including Salutati, Machiavelli, and Guicciardini, yet even in the Florentine context an attempt is made to refer to the university literature.

⁶ Such as Wilhelm Hennis, *Politik und praktische Philosophie: eine Studie zur Rekonstruktion der politischen Wissenschaft* (Neuwied am Rhein, 1963). and Jürgen Habermas, *Theory and practice*, trans. John Viertel (Boston, 1973).

theoretical parts of political science, a division of labor. Political scientists do their work in university departments, civics teachers do theirs in the high schools, and instructors of management science do theirs in the business and policy schools. And if we think a bit about whom we might say that he has political knowledge, we can quickly notice a continuum from theory to practice. On the most theoretical side are the professional political scientists of the university departments, like Samuel Huntington and Robert Dahl, towards the middle, there are the political strategists, who are not decision makers themselves, but some of whom we would say are the most political savvy, like David Gergen or James Carville, and then at the most practical end, political figures like Bill Clinton, Gandhi, or Bismarck.

The idea that the story of political science is the story of a shift from practical science to theoretical science then has been greatly exaggerated. Not only is there still a practical political science, as we have just seen, but, though this is not well known, there has been a theoretical political science since the adoption of Aristotle's *Politics* in the universities in the thirteenth century. For, I have found that from the thirteenth century on, the conventional distinction between the practical and theoretical aspects of ethics (*ethica utens* and *docens*) was widely applied to politics, and that political knowledge was thought of as both a theoretical and a practical science by nearly everyone, with the possible exception of Francesco Guicciardini.

Since the story of political science is one of two parallel tracks—political knowledge as practical and theoretical science—there are two corresponding sets of themes, and three stories, the story of each one separately and then the story of their relationship. The greatest attention in the scholarly literature has thus far been paid to the

development of practical political reasoning from a kind of moral reasoning to a kind of amoral reason of state. This is not a story that I pay much attention to in this study.

Rather, I am principally concerned here with the development of a theoretical science of politics, though I do at times examine the relationship between practical and theoretical political knowledge and the social status and meaning of the two kinds of political knowledge.

The discussion thus far of theory and practice has been informal, appealing to our usual notions of the words. In large part our usual way of thinking about these issues is identical with the way they thought about these issues in the past. However, they additionally had in mind Aristotle's definitions of practical and theoretical science. Aristotle divided the sciences into three categories, namely, the practical, theoretical, and productive. Practical science was knowledge which aimed at action, was exhibited through action, and was learned by experience. Furthermore, practical science was associated with the knowledge of what to do in particular circumstances. Theoretical science was the knowledge of things in general, which aimed at contemplation rather than action, and which studied eternal and immutable things.

The transformation of political knowledge from a kind of practical knowledge to a kind of theoretical knowledge in the thirteenth century required a significant rethinking of its purposes and characteristics. The questions raised at this time became perennial issues in the history of political science. Most of these issues, however, were not unique to political science, but belonged to the general structure of any science with a theoretical and practical component. The authors concerned with the nature of political science most often drew parallels to medicine, which faced many of the same issues. Medicine was in

fact referred to by Aristotle himself, when explaining the distinctions between theoretical and practical knowledge.

The importance of medicine for this issue has led Michael McVaugh and Nancy Siraisi to note that “among medieval branches of knowledge, medicine had the distinctive feature of bridging academic learning on the one hand and crafts, trades, and professions on the other.”⁷ I will contend that political science had as interesting and distinctive a role. In fact many of the questions that have been asked of medicine in the middle ages and the Renaissance which arose from the tension between theory and practice could be asked of political science as well. Is it a craft or a body of systematic knowledge? Is it based on experience? Who has better knowledge, the university professor or the street practitioner? Let us consider these in turn.

The first question of whether there is a craft or a systematic knowledge of politics or medicine refers to the Aristotelian thought that general knowledge cannot be practical knowledge. The reason for this is that in the Aristotelian way of thinking about things it is not immediately obvious how to apply general rules to particular cases. One might know in general how to cure feverish people, without knowing for sure whether a given person was feverish. Abstract knowledge is not actionable knowledge. Or at least not without experience.

This brings us to the second question of whether politics or medicine should be learned by experience. Experience can mean two things, either the memory of past observations or the experience of having done something. If politics or practicing medicine is a kind of skill, then it might be the kind of thing that is impossible to learn

⁷ McVaugh and Siraisi, “Introduction,” pp. 7-8.

without practicing doing it, like playing the piano or riding a bicycle. The advocates of a theoretical political science had to respond to the objection that politics was an activity of just this kind and that it was impossible to have any knowledge of it without personal experience of it.

If it is admitted that there can be both a theoretical and a practical kind of knowledge in a particular discipline, then it may be asked which is preferable. Though this question may be posed abstractly, as a matter of philosophy, in practice it appeared in the medical field as a tension between the university professors and the untrained street practitioners. In the history of political science, however, there is very little evidence of a conflict between the university teaching of politics and the actual practitioners of politics. There are several reasons for this. On the one hand, the university teaching of politics was much less important and far less established than the medical faculties. Politics was taught in the universities at different periods, but always on an occasional basis until the seventeenth century, when the first chairs in politics were instituted. Thus even if the practical politician wanted to complain about the professors of politics, and armchair politicians, there were hardly any to complain about. Moreover, the tension between medical practitioners and the university faculties of medicine was in large part due to the licensing of physicians. This tension was absent in the relationship between politicians and the faculties of arts, where politics was taught, since there was no corresponding licensing of politicians.⁸ Though there was no closed profession of politicians, strictly speaking, the university faculties did contribute to the professionalization of politics in

⁸ One might say that there was a certain licensing of politicians in Florence, in that the guild system carefully controlled the members of the administrative class. See Lauro Martines, *Lawyers and statecraft in Renaissance Florence* (Princeton, 1968).

this period, as is evident in the university education of administrators in early modern Germany.⁹

The three themes considered here which arose from the conflict between theory and practice, that is, generalization, experience, and the tension between theorists and practitioners, were all themes which were common to politics and medicine and to any other discipline with a theoretical and practical component. The theme of the independence of a discipline from morality arose mainly in the context of ethics and politics. The reason for this is that politics was identified by Aristotle not only as a practical science but also as a kind of practical wisdom (*prudentia*), or prudence. Aristotle defined practical wisdom as a virtue of deliberating well which allowed one to know how act in accordance with the virtues in a given situation. He conceived of politics as such practical wisdom aimed at the common good. In order to know how to act in accordance with the virtues, Aristotle wrote that one needed not only an accurate perception of the situation but also the correct attitude or desire to act correctly. For the advocates of a theoretical science of politics, the place of morality in politics was no longer clear since the correct desire which guided practical wisdom had no obvious place in a theoretical science of politics. Most of the advocates of a theoretical science of politics accommodated morality in their version of political science by in one way or another appreciating the goals of the people whose behavior they were studying.

The difficulties which have been just discussed are perennial issues for political science and the other sciences with a theoretical and practical component. Again, they

⁹ Wolfgang Weber, *Prudentia gubernatoria: Studien zur Herrschaftslehre in der deutschen politischen Wissenschaft des 17. Jahrhunderts* (Tübingen, 1992).

were especially salient at the moment when politics was first adopted into the university curriculum, but the themes, since they are constants, cannot explain the emergence of political science as a science or the trajectory that it has taken over the period discussed here. In particular, the themes raised by the contrast between theory and practice cannot explain the emergence of a science of politics as an empirical and causal science in the late sixteenth and early seventeenth century. To explain this phenomena, one must turn to the encounter between political science and natural philosophy and medicine.

It turns out that as important as the standard of science from the *Analytiks* was, the advocates of a science of politics often had recourse to other models of science, most often to medicine and natural philosophy. Often these were their main intellectual interests, or even occupations. So, for example, Albert the Great, who is considered in this study as the first exponent of a science of politics, is best known as a natural philosopher today as he was in his own time and in the intervening centuries. It is no accident that it was such men who argued for a science of politics. Natural philosophy and medicine were observational sciences, just like political science, and were less precise than mathematics, making for a better fit with political science.

The story told here is one of increasing integration with natural philosophy (and from this point on I include medicine under this heading) which contributed to the changes in the methodology of political science and which altered the causal structure of the explanation of political phenomena. We have seen in the discussion of theory and practice above, that it was controversial to speak about practical matters in terms of generalities. Once this issue had been surmounted, however, and it was maintained that there could be a theoretical science of politics and thus a science of general laws about

political phenomena, the nature of such general laws began to be discussed. In the early part of this study, such rules were thought to be ethical norms, and as such were discovered by deduction and argument about what ought to be done in a political context. Gradually, the laws came to be thought of as empirical laws describing regularities observed in political behavior. In this respect, the story of political science began to track the story of the natural sciences. When we think of empirical science, we naturally think of the discovery of new facts. This is now the essence of observational science. This was not however the concern, or at least not until the very end of the story, of the advocates of a science of politics discussed here. Their initial concern was rather to argue that there were such general laws in the first place and that such laws could be considered scientific. They realized that the phenomena in neither politics nor in natural philosophy were perfectly lawlike or regular, and so were not strictly speaking scientific according to the Aristotelian definitions which were their standard. They argued nevertheless that such general laws as were observable did count as scientific, because they were true “for the most part” (*ὡς ἐπὶ τὸ πολὺ, ut plurimum*). Aristotle had himself hinted that there could be a science of things which happened for the most part, and these hints were developed in the context of both natural philosophy and political science.

The advocates of political science also introduced induction into their scientific method. Aristotle’s standard model, in the *Analytics*, relied largely on deduction from intuited or self-evident premises. In the late sixteenth century, Aristotle’s scientific system was adapted by professors of natural philosophy and logic in Italy to include the induction of premises from particular empirical observations. These principles were then used as the premises for demonstrating conclusions. This method was referred to as the

demonstrative regress and it was adopted by the advocates of a science of politics. In the context of natural philosophy, it has been argued that this adaptation was an important step towards redefining science as a “logic of discovery” which could describe new facts and relationships rather than presenting an axiomatic system of principles.¹⁰ The fact that the demonstrative regress was used in developing political science means that it too was part of the general movement towards a greater empiricism and was well integrated into the history of science.

The description of observable regularities was only part of the task of science, then and now. Scientific statements were also meant to be causal explanations of the phenomena besides stating the fact that they are the case. This was as true of politics as of the other sciences. Aristotle wrote that there were four causes, the final, formal, material, and efficient, though it has been argued recently that they should be called the four “because” since they do not all resemble causes in the sense that we are accustomed to; that is, they do not all precede the phenomena to be explained nor do they all account for some change.¹¹ The causes invoked in political science changed over the period covered by this study, coming to resemble the causes used in natural philosophy more and more. In the beginning of the period, the cause most frequently cited to explain political phenomena is the final cause, which explains an event by citing the goal or aim of the process or actor. By the sixteenth century, on account of the popularity of astrological explanation—which was considered a part of natural philosophy—political science began

¹⁰ John Herman Randall, Jr., “The development of scientific method in the school of Padua,” *Journal of the History of Ideas* 1 (1940), pp. 177-206. Rpt. in *The school of Padua and the emergence of modern science* (Padua, 1961).

¹¹ Max Hocutt, “Aristotle’s four because,” *Philosophy* 49 (1974), pp. 385-399.

to emphasize efficient and material causes. Efficient causes are closest to our conception of cause today, while material cause denotes explanations which refer to the nature of the material of the object which is undergoing some change. In the astrological explanations, the efficient cause was the influence of the stars while the material cause was the make-up of the individuals who were influenced by the stars. Finally, by the close of the sixteenth century, after the growth of a public law approach to constitutionalism, the formal cause, which in politics was said to refer to the constitutions or distribution of offices of a regime, came to be more prominent. Finally, in the wake of the incipient nationalism of the Thirty Years' War, the material cause came more and more to refer to the natures of entire peoples rather than of individuals. This shift in approach from one of almost exclusively final cause explanation to one which included all four causes, meant that political science had come to resemble natural philosophy more closely, in considering the unconscious motives or conditions of political behavior as much as the stated goals and desires of individuals.

Taken together, the trend towards generalization of empirically observed behavior and the shift towards a more naturalistic variety of causal explanation posed a challenge to the traditional notions of free will and the centrality of human agency. This was the natural consequence of a redefinition of the science. Just like the transition of natural philosophy to modern physics required a reworking of the ontology and metaphysics of the natural world, do too political science required a rethinking of human agency as it shifted its mode of explanation. All of the advocates of a science of politics show a concern to preserve the traditional view and values of human agency, but in protesting in

such a manner, they show clearly their concern that this redefinition of political science imperils free will.

The attempts either to model a science of politics on natural philosophy and medicine or to distinguish it from them thus led to a host of interesting issues which prefigured the great issues of eighteenth and nineteenth century social science. These include the questions of theory and practice, generalizability, the susceptibility to causal explanation, and the possibility of a value free science. But while many of these issues do prefigure the concerns of eighteenth and nineteenth century social scientists and their historians, the issues are not identical and one must be careful not to misinterpret the political science of this period in the light of the modern social sciences. While the authors studied here did argue for a theoretical science of politics, this was only as a supplement to the practical conception of political knowledge which continued to be of great importance during this entire period. The generalizability of human behavior was thought to apply to the members of a group or class, such as nations or redheads, not to humans as a whole. There is no concern that such generalization will erase local difference. In fact, there is no concern over individuality as such at all. The concern is rather over free choice. This is naturally a related concern, but the emphasis is quite different. There is no worry about the establishment of a norm but merely of denying the free choice upon which Christian piety and morality was based. The issue of free choice also came up in discussions of the susceptibility to causal explanation. With respect to causal explanation, even the most fervent believers in the causal efficacy of natural causes left room for free choice. Finally with respect to the question of value neutrality, the authors in this period, thanks to their understanding of the final cause, often treated

values with greater subtlety and more appreciation for their explanatory value than many subsequent social scientists and without abandoning their own viewpoints.

If the claim is that this work properly belongs to the history of science, then the motivations of the advocates of a science of politics ought to be at least in part scientific. Perhaps this need not strictly be the case, since many histories of science have been written from the point of view of the later science. Thus the history of astronomy conventionally includes some discoveries which were made not for the sake of astronomy itself but for the purpose of clarifying disputes about the liturgical calendar. But this is a history of political science, so we should not be surprised to find some politics in its history as well. One of the main arguments of this study is that the history of political science is a political history. The question of who has or can have political knowledge has long been contested and it cuts to the very heart of the nature of such knowledge. For, the nature of both theoretical and practical political knowledge varies depending on who the author thinks has such knowledge. Is it a virtue which can only be gained in the exercise? Experience? A set of duties? A demonstrable set of conclusions from fixed axioms? The history of political science is at least in part a political or ideological story, which relied for impetus not only on the development of scientific method more generally, but on the politics of the day, from the peculiarities of monarchy, to the justification of oligarchy, to the resolution of conflict in the age of religious wars. The social role of knowledge is an important theme in the history of science literature more generally, and I draw inspiration in this regard from the corresponding literature in the history of medicine. In keeping with this literature, I will focus not only on philosophical

views of the nature of political knowledge but the role it played in the given societies as well.

While much of the interest in this story is its ideological or political dimension, I do not mean to claim that the history of political science is through and through ideological in the strong sense of the word, whereby various definitions are given to political knowledge for the exclusive purpose of furthering the interests of a particular social class or political party. However, there are moments where this is a fair description, as when Donato Giannotti argued that the popular class of Florence can have political prudence and he described the wisdom of the popular class as a kind of common sense that one could plausibly read as a description of the working class in the twentieth century. One could also read Melanchthon's argument for a demonstrative political knowledge in this vein. Certainly Melanchthon was concerned along with Luther over the political violence of the age, the Anabaptists and the Peasants' Revolt. The conception of political knowledge as demonstrative knowledge was in part a response to the concerns with this political violence.

I do not mean to argue that there is a necessary connection between a particular view on the nature of political knowledge and particular political commitments. Certain definitions of political knowledge were used for political purposes, as when Guicciardini argued that political prudence relied heavily on personal experience which in turn meant that the elite class in Florence deserved to rule.

I also do not want to say that all of the authors considered in this study were politically motivated. It is very difficult to figure out whether these authors were politically or scientifically motivated, because the authors do not announce their agendas.

While the entire story of political science is not one of unambiguous progress wherein the definition becomes more and more clearly scientific until political science was born, it is also not solely a history of taking sides and political maneuvering. Some discussions are clearly more scientific in concern, such as the dispute of the arts in the Renaissance, and certainly Conring's work on political science, in which he is explicitly engaged with the latest philosophy of science and debates on method. Some of the other authors were almost certainly motivated by politics, since their scientific claims are so poorly worked out, so schematic, that it is hard to imagine that they are scientifically motivated. One example would be Melanchthon's treatment of demonstration. Guicciardini is something of a mixed case. He was so clearly politically motivated on the one hand, but on the other, there is much more methodological reflection in his writings, the *Ricordi* and the *Dialogue on the Government of Florence*, than we would expect if he were only concerned with the politics at issue. To some extent the authors' motivations are irrelevant if they result in the political science of today. So, even if the Renaissance emphasis on experience had more to do with politics than science, it resonated with the empiricism of the new method of the seventeenth century scientists who were concerned with experience for the sake of science.

The central narrative here is dictated by developments in the science of politics rather than in the development of the modern state or a modern style of politics. While the political dimension and implications of the various authors' conceptions of political science sometimes inform the nature of that political science, as just discussed, this study has not found a clear institutional story to accompany the story of the development of political science. In this regard, then, the study provides a negative or critical finding. The

state building narratives that have dominated the literature thus far overstate the republicanism of the “pre-state” period on the one hand and the statism of the later period. Much of the literature is politically conservative in the sense of upholding the status quo, but the status quo is seldom statist or absolutist.

This is the first book-length study which tries to integrate the history of political science with the history of science more generally. The literature on the material covered here has thus emphasized the political dimension of the authors’ work with sidelong glances at scientific developments. The works which take the long—and usually impressionistic—view tend to tell the story of a shift from practice to theory, as referred to above. These works show the influence of Karl Marx’s writings on ideology and theory, searching for a new relationship between theory and practice which respects human agency and demands action where required by the moral vision of the theory.¹²

Most of the specialized studies which cover similar material tend to begin in the sixteenth century and as such they take their interpretive frameworks from the historiography of the early modern period. In particular, this means that the history of political science as it can be reconstructed from their works is a history of state-building, of the new science, of the end of Aristotelianism, and in general, a response to the Renaissance. I believe that these works are partial revisions of the late nineteenth and early twentieth century German historiography which pictured the new political science of natural law as a response to the skeptical *lebensphilosophie* of the Renaissance. I believe the older literature introduced an informal cycle of “dogmatists” and “skeptics” into the history of ideas: a period of dogmatic natural law, followed by the skeptical

¹² Hennis, *Politik und praktische Philosophie*.

Renaissance, followed by the dogmatic new science and the Enlightenment, followed by the skeptical nihilism or relativism of Nietzsche and Weber, followed once again by neo-Kantianism.

The literature since the 1960s has substantially revised this account, though much of it continues, perhaps with some justification, to think about the development of political science as a quest for certainty. The source of much of the revision stems from a closer inspection of the relationship between the development of the modern state and political science. Arguments for the state are neither straightforwardly dogmatic or skeptical. The state can be pictured as a bastion of arbitrary decision-making or as a rationalized efficient institution. In emphasizing the former, Richard Tuck has argued that the science of natural law, long thought to be a response to uncertainty, was in some sense a continuation of the literature of reason of state. The arbitrariness of Tuck's science of natural law is by no means identical to that of the reason of state literature, since it required consensus at some very basic level (that is, popular sovereignty) but the role of science appears as something of a fig-leaf to the general trend of the theory. Tuck's account is consistent with that of Maurizio Viroli's who argued that the development of practical political reasoning from the thirteenth through the seventeenth century mirrored an institutional shift from a medieval republican practice of "politics" to a statist and princely "art of the state."¹³ Tuck and Viroli focus more or less until the mid-

¹³ Maurizio Viroli, *From Politics to Reason of State* (Cambridge, 1992).

seventeenth century on the Italian materials, and so see the rise of the state coincide with the “end of Aristotelianism.”¹⁴

Recent students of German political thought in this period, most notably Horst Dreitzel, have postponed the end of Aristotelianism—though perhaps only for some fifty years—and have largely de-emphasized the state building narrative.¹⁵ This is of course natural since Germany at the time was splintered into dozens of different political organizations all loosely tied together in the framework of the Holy Roman Empire. Each of these duchies or principalities styled themselves after the territorial states of Italy and France but they competed with the civic institutions of the free German cities and the electoral framework of the Empire.¹⁶

In turning to the sources of Protestant Aristotelianism, Dreitzel, and more recently, Merio Scattola, have not only shifted the narrative of early modern political thought away from the development of the modern state, but have also come to emphasize the importance of scientific motives for the development of political science in

¹⁴ Tuck considers German political thought as well but emphasized the reception of Tacitism in Germany as well.

¹⁵ Horst Dreitzel, *Protestantischer Aristotelismus und absoluter Staat: Die “Politica” des Henning Arnisiaeus (ca. 1575 - 1636)* (Wiesbaden, 1970), “Hermann Conring und die politische Wissenschaft seiner Zeit,” in *Hermann Conring. Beiträge zu Leben und Werk*, ed., Michael Stolleis (Berlin, 1983), pp. 135-172, “Der Aristotelismus in der politischen Philosophie Deutschlands im 17. Jahrhundert,” in *Aristotelismus und Renaissance. In memoriam Charles B. Schmitt* (Wiesbaden, 1988; Wolfenbütteler Forschungen, Vol. 40), pp. 163-192, “Hobbes- Rezeptionen. Zur politischen Philosophie der frühen Aufklärung in Deutschland,” in *Politisches Denken. Jahrbuch der Deutschen Gesellschaft zur Erforschung des Politischen Denkens* (Stuttgart/Weimar, 1991 or 1992), pp. 134-174, Translated as “The Reception of Hobbes in the Political Philosophy of the Early German Enlightenment,” *History of European Ideas*, 29 (2003), pp. 255-289. “Die ‘Staatsräson’ und die Krise des politischen Aristotelismus: Zur Entwicklung der politischen Philosophie in Deutschland im 17. Jahrhundert” in *Aristotelismo politico e ragion di stato*, ed., A. Enzo Baldini (1995), pp. 129-156, “Reason of State and the crisis of political Aristotelianism: An essay on the development of 17th century political philosophy,” *History of European Ideas*, 28 (2002), pp. 163-187; *Die Philosophie des 17. Jahrhunderts. Band 4: Das Heilige Römische Reich Deutscher Nation. Nord- und Ostmitteleuropa*, eds., Helmut Holzhey and Wilhelm Schmidt-Biggemann with Vilem Mudroch (2001).

¹⁶ Dreitzel, introduction to Arnisiaeus and his review of Stolleis in *Ius Commune*.

the same period.¹⁷ Both scholars have done much to integrate the work of the historians of the Aristotelian contribution to the development of modern science such as John Herman Randall, Charles Schmitt, Charles Lohr, Eckhard Kessler, Heikki Mikkeli, and Sachiko Kusakawa, into the history of political science..¹⁸ Their works represent a revision then not only of the work which is focused on the state but also the more general literature of Habermas and Hennis which pictured the contribution of Aristotelianism as that of practical philosophy rather than science.

This study owes much to the works of Dreitzel and Scattola. It provides a prelude to their findings by charting the story of political science from the thirteenth century on. In doing so, I believe it places the questions of theory and practice in the proper perspective, as a perennial problem for political science. Moreover in telling the story of political science as a science, the contrasts and similarities with natural philosophy emerge more clearly so that men such as Albert the Great, Philip Melanchthon, and Hermann Conring, if not Machiavelli and Guicciardini, appear rightfully as much as scientists as controversialists and politicians.

¹⁷ Merio Scattola, *Dalla virtù alla scienza: la fondazione e la trasformazione della disciplina politica nell'età moderna* (Milan, 2003).

¹⁸ See esp. the essays in *Method and order in Renaissance philosophy of nature: the Aristotle commentary tradition*, eds. Daniel A. Di Liscia, Eckhard Kessler, Charlotte Methuen (Aldershot, 1997) and Heikki Mikkeli, *An Aristotelian Response to Renaissance Humanism: Jacopo Zabarella on the Nature of Arts and Sciences* (Helsinki, 1992).

Chapter 1. A theoretical science of politics

It is widely assumed that thirteenth century authors took political knowledge to be a kind of practical knowledge.¹⁹ But this is only partially true. During the thirteenth century, some of the masters at the university in Paris and in the schools of the mendicant orders argued for the first time that there could be a university discipline of politics. In doing so, they explained how they thought that politics could be a science, despite the fact that it had traditionally been thought of as a kind of practical knowledge. The scholars of the thirteenth century had some sense of the reasons that it was considered a practical science in the classical world, even before the full translations of Aristotle's *Ethics* and *Politics*, due to works on the division of sciences and Aristotle's *De Interpretatione*.

In these works, Aristotle had stated that there could not be scientific knowledge of variable matters such as human action. According to Aristotle, human actions were variable in the sense of being both contingent in a modal sense and particular in a quantification sense. His denial that there could be a science of human action was consistent with his insistence in his philosophy of science, the *Posterior Analytics*, that science had to be of universals and necessary things. Thus in devising a theoretical science of politics, the authors of the thirteenth century faced two questions: How can there be a science of matters which are not universal? And, how can there be a science of matters which are not necessary?

The scholars of the thirteenth century formulated an answer to the first question by closely tracking the manner in which they justified a science of nature though natural

¹⁹ This is true of all of the literature cited in the introduction.

phenomena are also not universal. They argued that though the phenomena themselves were not universal, there could be a science of the organizing principles of the science of nature. In their answer to the second question, they diverged from the model of natural science. While natural phenomena may not strictly be necessary from an Aristotelian point of view, compared to human actions, which were seen to issue from free choice according to the thirteenth century authors, they were necessary. Much of the puzzle for the thirteenth century authors, then, was how to devise a science of politics which was consistent with free choice. This was more difficult than in the similar case of ethical science, since politics had a greater burden of explanation. It was easier to see how ethics could be a science of principles, but politics had to explain actual political phenomena—regime types, conflict, political change. At the same time, politics, in keeping with Aristotle’s suggestions, was considered an ethical science. The challenge then was to develop a science of politics that was ethical, explanatory, and consistent with free choice. They were thus concerned with identifying the causal structure appropriate to a science of human affairs, which led them to distinguish politics from natural philosophy, where causal arguments often assumed the absence of free will.

This chapter illustrates first, how thirteenth century scholars argued that there *could* in fact be a university discipline of politics. Before describing just how these scholars developed a science of politics which—distinct from the model used for natural philosophy—was especially suited to an explanatory ethical science of politics. The place of politics in the university curriculum is explored using the literature on the “division of the sciences” which categorized and discussed the branches of knowledge known at the time. The relationship between natural philosophy and political science is examined

principally using Albert the Great's commentary on Aristotle's *Politics*, though there is some recourse to the partial commentary of Thomas Aquinas and the completion of the work by Peter of Auvergne.

A theoretical science of politics

It was not just politics which the masters were re-imagining as a university discipline. As new institutions themselves, universities had to accommodate all kinds of knowledge to a new setting. The Universities of Paris and Oxford were each founded around 1170. When our story begins, in the mid-thirteenth century, the first colleges at Oxford, namely, University College, Balliol, and Merton were just being built. The accommodation of knowledge to the university setting was and is a gradual process, but it is perhaps most visible in this era and perhaps most labored in its attempts to adapt traditionally practical kinds of knowledge to university teaching. In practice this was a fairly concrete process in which the university masters argued in the introduction to their lectures on a given textbook (usually classical) that scientific knowledge of the subject was possible. These arguments were recorded with the rest of their lectures in books of commentaries. This process of adaptation was standard by the time Aristotle's *Politics* was translated in 1260.

If the process was fairly standard in outline, each subject nonetheless presented its own difficulties. The discipline whose difficulties were closest to those of politics was medicine, since it was and remains both a theoretical and practical science, with general principles on the one hand and particular cases on the other. Moreover, the university lecturers were distinct from the practitioners in both politics and medicine. In the thirteenth century, as for the rest of the period covered by this study, the learned

physicians of the university were defending their position against “street healers” and folk doctors. And, naturally, the university masters, while they may have had some exposure to politics were not actually rulers. The university version of politics was a theoretical discipline, meant for the schoolroom rather than for the court. At the same time as these textbooks based on Aristotle’s *Politics* were being written in the university milieu, traditional practical works, known as mirrors of princes, were being written for kings and princes. These works were spiritual and practical guides to ruling and they emphasize that the king should embody wisdom in his decisions and conduct.²⁰

To trace the development of a science of politics, this study focuses on those works which explored the theoretical discipline of politics. After surveying the traditional views of political knowledge in the thirteenth century, it reconstructs the arguments supportive of such a science of politics and studies their deployment in the commentary of Albert the Great on Aristotle’s *Politics*.

Politics and the division of the sciences

As Aristotle’s conception of political knowledge became increasingly known in the Latin-speaking world, the scholastics tried to fit it into their existing knowledge of Aristotle’s work.²¹ Scholars of the thirteenth century knew of an Aristotelian political science even before the *Politics* was translated. Yet scholars at the University of Paris were unsure of how to classify politics within the existing university structure, because

²⁰ Wilhelm Berges, *Die Fürstenspiegel des hohen und späten Mittelalters* (Leipzig, 1938) and Vincent of Beauvais, *De morali principis institutione*, ed. Robert J. Schneider (Turnhout, 1995).

²¹ This account of the place of politics in the *divisio scientiarum* follows Christoph Flüeler, *Rezeption und Interpretation der aristotelischen Politica im späten Mittelalter* (2 vols., Amsterdam, 1992). See also Janet Coleman, “The science of politics and late medieval academic debate,” in *Criticism and dissent in the middle ages*, ed. Rita Coleman (Cambridge, 1996), pp. 181-214, p. 185.

they were unsure of both its scientific nature and whether it was a distinct science. Aristotle had defined science in the *Posterior Analytics*—which was well known at the University of Paris—both in the sense of a kind of certain knowledge of universals produced by a particular method and a body of principles which cohere and are independent from other sciences. It is natural then that the scholars would have been concerned about whether politics was a science independent from the other sciences in addition to being concerned about whether it was a science in the sense of being a kind of certain knowledge about universals. Like today, the question of where and how something should be studied was as much a question of departmental politics as it was a meditation on the philosophy of science. Both the concerns over institutional politics and the nature of political knowledge were apparent in numerous works on the division of the sciences which described how the different disciplines known at the time were related to one another.

The starting point for medieval authors in this genre was the work of Boethius (d. 524), who classified politics as a kind of practical philosophy, and more particularly, as one of the branches of moral philosophy along with ethics and economics. Boethius wrote that the second division of practical philosophy is “that which while taking care of the commonwealth heals the welfare of other [individuals] by the skill of its foresight and the balance of its justice and the constancy of its fortitude and the patience of its temperance.”²² For Boethius, political knowledge was a kind of virtue or skill knowledge

²² Boethius, *In Isagogen Porphyrii commenta*, eds. Georg Schepss and Samvel Brandt (Vienna, 1906).

(*Corpus scriptorum ecclesiasticorum latinorum*, v.48) (Anicii Manlii Severini Boethii Operum pars I), p. 9 and Boethius, *In porphyrium dialogi*, dialogus I, in PL 64, col. 12a : *secunda vero est quae rei publicae curam suscipiens cunctorum saluti suae providentiae sollertia et iustitiae libra et fortitudinis stabilitate et temperantiae patientia medetur.*

through which one knew how to act appropriately in the domains relevant to politics. Authors of subsequent works on the division of the sciences, including Cassiodorus (ca. 487-ca. 580), Isidore of Seville (d. 636), and Hugh of St. Victor (1096?-1141) echoed Boethius's understanding of politics as a kind of practical knowledge.

The nature and conditions of such knowledge were explored more precisely for the first time in a work on the division of sciences by the late twelfth century Toledan translator Dominic Gundissalinus, who quoted at length from Avicenna's *Metaphysics* and Alfarabi's *Enumeration of the Sciences*.²³ Many of the themes that will be so important in this study appear in the portions excerpted from the tenth century philosopher Alfarabi. Alfarabi identified civil science with the Greek notion of political science in Aristotle and Plato, which he distinguished from jurisprudence and theology.²⁴ In addition to the conception of political knowledge as a kind of virtue, which Alfarabi called "royal virtue," is added a more intellectual discipline called civil science which is charged with finding the ends which constitute true happiness and the dispositions and actions which lead to those ends.

²³ Excerpted and translated in Alfarabi, "Enumeration of the sciences," in *Medieval political philosophy: a sourcebook*, eds. Ralph Lerner and Muhsin Mahdi ([New York, 1963]), pp. 22-30. Gundissalinus's version is available in a number of places including, Dominicus Gundissalinus, *De divisione philosophiae*, ed. Ludwig Baur (Münster, 1903), Fārābī, *Opera omnia quae Latina lingua conscripta reperiri potuerunt*, ed. G. Camerarius (Paris, 1638; Rpt. Frankfurt, 1969), and Angel González Palencia, *Al-Fārābī: Catálogo de las ciencias* (Madrid, 1953), pp. 83-115. For dating, see ed. Baur, pp. 162-3. It was translated in full into Latin in around 1175 by Gerard of Cremona. MS Lat. 9335 BNF Paris fols. 143-151. Edited in González Palencia, *Catálogo de las ciencias*, pp. 117-76. See Michael C. Weber, "Gerard of Cremona: The danger of being half-aculturated," *Medieval Encounters* 8 (2002), pp. 123-134.

²⁴ This point is emphasized by Muhsin Mahdi, "Science, Philosophy, and Religion, in Alfarabi's *Enumeration of the Sciences*," in *The Cultural Context of Medieval Learning*, eds. John Emery Murdoch and Edith Dudley Sylla (Dordrecht, Holland, 1975), pp. 113-146, p. 131. Alfarabi, *De Scientiis*, trans. Cremona, p. 170: Et hoc quidem est in libro qui Politica dicitur, et est liber Ethice Aristotilis. Et est iterum in libro *Ethice* Platonis, et in libris Platonis et aliorum.

Even Alfarabi's conception of virtue was more intellectual than the bare identification of politics with practical philosophy had suggested. The achievement of the ends conducive to happiness still depends on being virtuous, but now that virtue is said to be acquired through contemplation as well as action.²⁵ Royal virtue has two subordinate virtues, one which is attentive to general rules and the other which attends to particular situations. Alfarabi claimed that these virtues are similar to the virtues of the physician who like a ruler moves from general rules to particular cases. The virtue of judging particular cases is gained by experience in both the political and medical context. In the political context it is acquired "through long practice in civil deeds and the long observation of actions in individuals and in particular cities, and of long study of these things through experience and long observation, as is the case in medicine." The reason that experience is important for royal virtue, as for medicine, is that political actions are individuated by particular sets of circumstances, just like individual patients. "Similarly," Alfarabi argued, "it is by means of such a virtue and experience that the royal virtue is able to determine what is to be done with a view to a particular accident, state, and time."²⁶ While Alfarabi's portrait of royal virtue is on the one hand one of a practical

²⁵ Alfarabi, *De Scientiis*, trans. Cremona, p. 168: Et quod regnatus ille non preparatur nisi per virtutem et habitum a quibus sunt operationes stabilitatis et in eis et operationes servantis quod stabilitum est in eis quod super ipsos....Et [scientia civilis] ostendit quod virtus regia optima componitur per duas virtutes.

²⁶ Alfarabi, "Enumeration of the sciences," p. 25. Translation emended to be closer to the Latin translation. Alfarabi, *De Scientiis*, trans. Cremona, pp. 168-69: Quarum una est cum virtute super canones universales et altera est virtus quam acquirit homo per longitudinem assiduationis actionum civilium et visionis operationum in unis et individuis et civitatibus particularibus et studiis in eis per experimentum et longitudinem testimonii secundum similitudinem eius quod est in medicina. Medicus enim non fit medicator perfectus nisi per duas virtutes, quarum una est virtus super universalia et canones que acquirit ex libris medicinae, et altera virtus que advenit ei per longitudinem frequentie actionum medicine in egris et studii in eis per longitudinem experimenti et visionis corporum individuorum. Et per hanc virtutem potest medicus mensurare medicinas et curationem secundum unumquodque corpus in quaque dispositione. Similiter virtuti regie non est possibile ut mensuret actiones secundum unumquodque accidens et quamvis dispositionem et quamvis civitatem in quaque hora nisi per hanc virtutem et est experimentum. The

science—one learned through practice—it is also an intellectual discipline like medicine, based on observation and contemplation.

Thus in Alfarabi's writings (made available in Latin by the mid-thirteenth century), the crucial elements of the conception of political knowledge for the next several hundred years were already present: the two levels of reasoning of general principles and particular cases and a sense of the importance of experience for political expertise. All of these features ultimately stem from the comparison with medicine. These were methodological insights drawn from the practice of medicine and it is this comparison that set the terms of the discussion of political knowledge.

This was a matter of controversy at the University of Paris in the thirteenth century, when, in the absence of a translation of the *Politics* into Latin, there existed a strong tendency to identify politics with legal science. The author or authors of the *Guide de l'étudiant*, a contemporary guide to the curriculum at the University of Paris, exhibited this tendency. So too did Robert Kilwardby (c.1215-1279), a Dominican and regent-master of arts in Paris and, later, master of theology at Oxford, as revealed in his *De Ortu Scientiarum* (ca. 1250).²⁷ In resisting such an identification, the advocates of the new

relevant passage in Gundissalinus, *De divisione*, ed. Baur, p. 135, is very close: Ostendit eciam, quod virtus regia componitur ex duabus virtutibus, quarum una consistit in cognitione regularum universalium, et alia consistit in usu videndi et assiduitate agendi et experiendi, sicut medicus, qui non fit perfectus medicator nisi per cognitionem regularum universalium, que dicitur theorica et per assiduitatem medendi et medicinalis experiendi circa egros, que dicitur practica. Sic virtus regia non sufficit disponere actiones hominum secundum unumquodque accidens et unamquamque civitatem, unumquodque tempus, nisi per virtutem sciencie et assiduitatem experiencie.

²⁷ Claude Lafleur and Joanne Carrier, *Le "Guide de l'étudiant" d'un maître anonyme de la Faculté des arts de Paris au XIIIe siècle* [Archivo de la Corona de Aragón. ; Manuscript.; Ripoll 109, ff. 134-158.] (Québec, 1992), § 75, p. 53: Item anima vivit in bono omnium communiter secundum legem communem, et secundum hoc est scientia que traditur in legibus et decretis. Que 'polita' vocatur a *polis*, quod est 'civitas,' eo quod est de iure et defensione iuris eorum que sunt in civitatibus constituta. Robert Kilwardby, *De Ortu Scientiarum*, ed. Albert G. Judy (Toronto, 1976), p. 126: Ad hanc scientiam pertinent iura canonica et civilia et praecipue ad illam partem quae civilis dicitur, sicut patet ex effectu eorum. Statuunt enim fora,

science of politics were compelled to argue that there was more to the study of politics than merely the study of laws. Janet Coleman argues that this is what Peter of Auvergne meant when he wrote in the introduction to his question commentary that he wished to address politics differently from others before him, that is, to do so in a philosophical manner.²⁸ In fact, it may be that some of the enthusiasm in the faculty of arts over the Latin translation of the *Politics* was due to the discovery of a work on politics distinct from the systems of Roman and canon law of the faculties of law in the universities. The *Politics* furnished the faculty of arts with its own treatment of politics independent of any legal framework.²⁹

The shift at the faculty of arts from this view of politics as law to politics as an art distinct from law is evident in another work on the division of the sciences, written by a Danish master of the faculty of arts at Paris, Jean, some twenty years after William of Moerbeke's translation of the *Politics* in 1260.³⁰ Jean followed the traditional division of moral philosophy into politics, economics, and ethics, noting that the traditional works to read for them are, respectively, the secular and canon laws, Cicero's *De Officiis* on

audiunt partes, dirimunt lites et unicuique quod sibi debitum est secundum merita reddunt, quod totum pertinet ad regimen et pacem vitae publicae ac civilis. After quoting Boethius's definition of politics by way of Hugh of St. Victor, Kilwardby added:

The canon and civil laws pertain to this discipline and chiefly to that part which is called civil, as is clear from their applications. Indeed they judge in court, they listen to the sides, they settle disputes and they give to each person what is due to him according to the merits, which pertains completely to the rule and peace of the public and civil life.

²⁸ Coleman, "The science of politics," p. 201. Christoph Flüeler, "Die Rezeption der 'Politica' des Aristoteles an der Pariser Artistenfakultät im 13. und 14. Jahrhundert," in *Das Publikum politischer Theorie im 14. Jahrhundert*, ed. Jürgen Miethke (Munich, 1992), pp. 127-38.

²⁹ Flüeler, *Politica im späten Mittelalter*, I, p. 7. Coleman, "The science of politics," p. 191.

³⁰ The "divisio scientie" is a preface to a larger work, the "Somme grammaticale." Johannes Dacus, *Opera*, ed. Alfredus Otto (Copenhagen, 1955), vol. 1, p. xii.

family and household life, and Aristotle's *Nicomachean Ethics*. But Jean thought that the traditional curriculum needed altering. He argued that there was sufficient material in Aristotle's *Politics* for politics and economics, while the *Nicomachean Ethics* remained a good guide for ethics. The isolation of politics from other disciplines would become a standard feature of works on the nature of political knowledge.³¹

Moreover Jean argued that the *Politics* taught the art of making laws rather than the laws themselves:

But understand that though some already instituted laws are taught in the secular and canon laws, nevertheless the philosopher [Aristotle] taught the method of instituting laws, from which [it is clear] that neither the emperor nor the pope taught the method of instituting rights or laws, but already instituted rights and laws, while they presuppose and have the method of instituting from philosophers. Indeed the philosopher teaches in the eight books of *Politics* the method of instituting a household, villages, cities and kingdoms, and how one ought to live together with another as much in a household as in a city or kingdom.³²

For Jean politics is a *practical* discipline, that is, a skill of some kind which needs to be taught. The lawyers know what the law is, but presuppose the considerations and the kind of thinking that goes into making the law. Politics according to Aristotle and Jean is learning to live together; this conception is clearly both moral and practical.

Robert Kilwardby whose *De Ortu Scientiarum* was probably written around the same time as Albert's *Super Ethica* (i.e., ca. 1250) and who had access to the full

³¹ Thus it appears prominently in the seventeenth century works on the subject, such as Johannes Caselius's *Propolitikon* and Conring's *De Civili Prudentia*. These discussions remind us that reflection on the nature of political knowledge was motivated both by rivalries between university professors and the professions as well as by a desire to identify the true nature of political knowledge.

³² Dacus, "Divisio scientie," pp. 22-23: Sed intellige, quod quamquam in legibus et decretis tradita sunt quedam iura et leges condite, tamen philosophus docuit modum condendi leges, unde nec imperator nec papa modum condendi iura seu leges tradiderunt, sed iura condita et leges conditas, modum autem condendi a philosophis supposerunt et habuerunt. Docet enim philosophus in octo libris politicorum modum constituendi domum, vicos, civitates et regna, et quomodo quilibet alteri convivere debet tam in domo quam in civitate seu regno.

translation of the *Ethics* and the Greek commentaries thereto, continued to think of politics as a practical science not susceptible to demonstration. Kilwardby discussed the practical sciences and their relationship to demonstrative science at length. He followed Aristotle in a more orthodox manner, arguing that demonstration was reserved to a certain class of theoretical sciences.³³ He is altogether more hesitant to attribute scientific knowledge to various fields of inquiries. There is a kind of conjectural knowledge of natural philosophy, which is more certain than the knowledge of practical matters, but this is short of scientific knowledge. The reason that knowledge in natural philosophy is any better than knowledge in the practical sciences, though both are concerned with contingent matters, is that physical phenomena are often contingent in set ways, while human actions are infinite and widely varied.³⁴ Kilwardby did not distinguish between a *docens* and *utens* approach in practical sciences, or between knowledge of universal principles and particulars in theoretical contingent sciences like natural philosophy.

The method of proceeding in the practical sciences is the rhetorical and dialectical method described by the Byzantine Eustratius in his commentary to the *Ethics*, translated by Grosseteste at the same time as the full translation of the *Ethics*. This is the method of the conjectural mechanical arts, including government and medicine. The method does not deduce conclusions from true and immediate premises with causes as required for science by Aristotle's *Posterior Analytics* but makes arguments on both the affirmative

³³ Kilwardby, *De Ortu Scientiarum*, p. 134: quod ostendit Aristoteles scientiam esse de universalibus, ostendit de scientia demonstrativa, et ideo illud pertinet ad speculativam partem philosophiae quae habet demonstrationem facere et demonstrative probare, et non ad activam quia ipsa non habet demonstrative probare aliquid, ut docet Aristoteles in *Ethicis*.

³⁴ Kilwardby, *De Ortu Scientiarum*, p. 137.

and negative side of a proposition.³⁵ The practical sciences are called arts because they refer to what happens frequently, and are consistent now with one side of a proposition, now with the other.³⁶

Kilwardby's discussion juxtaposes ethics and politics with more mechanical practical sciences such as hunting and the building of houses. His juxtaposition between ethics, politics and the mechanical arts is striking. Kilwardby did distinguish between the practical sciences which aim at the spiritual good of man, blessedness, and practical sciences which aim at the corporal good. Practical sciences concerned with the spiritual good are called ethical, those concerned with corporal good are called mechanical.³⁷ Kilwardby presumed that there is a science or method in ethics and mechanics, but his interpretation of their origin stresses their practical nature. In ethics, he described a process of discovery by men who wished to find blessedness. They realize that it will require virtue, and that this primarily means virtue acquired by habit. The philosophers in turn realize that it would be helpful to develop a science of ethics and to lay down some principles.³⁸ In this account, the science of ethics is developed not in a theoretical fashion, but rather because it is useful to achieve blessedness. The methods of the mechanical sciences are similarly discovered in a piecemeal and experimental method, which is based on closely observing the way things work in nature. For example, it was

³⁵ Kilwardby, *De Ortu Scientiarum*, p. 135.

³⁶ Kilwardby, *De Ortu Scientiarum*, p. 136.

³⁷ Kilwardby, *De Ortu Scientiarum*, p. 124: *Ars igitur operativa propter bonum humanum consequendum inventa, aut propter bonum spirituale inventa est, aut propter corporale, quarum prior ethica dicitur et secunda mechanica.*

³⁸ Kilwardby, *De Ortu Scientiarum*, p. 125: *Viderunt igitur quod oportuit virtutem agnoscere et eius species atque operationes ex quibus etiam et qualibus operationibus virtutes generantur, foventur, augentur et consummantur.*

recognized in the art of building that just as rain ran off mountains into the valleys, so too would rain run off a house on a rise.³⁹

Kilwardby's discussion gives us another view into the social dimension of political knowledge. Kilwardby claimed that there was more certain knowledge of ethics than the mechanical arts, since its end was more noble,⁴⁰ but in general, the discussion of the practical sciences lumps ethics and politics with arms-making, hunting, weaving, and agriculture, among other mechanical arts. The mechanical arts are more fitting for the masses and the ignoble, while the liberal arts are more fitting for nobles, because leisure is required for them.⁴¹

Kilwardby thereby provided a radically different approach than would be found in similar discussions by Albert and Aquinas, through whose efforts ethics and politics would find their place in the universities. It may in fact be that Kilwardby reflected a more antiquated view in his work, which is suggested by the fact that the exposition closely follows the works of Isidore (d. 636) and Hugh of St. Victor (1096?-1141).

Aristotle's Politics

Serious reflection on the nature of political knowledge began after the full translation into Latin of Aristotle's *Nicomachean Ethics* and *Politics*. As we will see, the fact that political science was based on Aristotle's works shaped the discipline's

³⁹ Kilwardby, *De Ortu Scientiarum*, p. 127: Qui domum fecit montem vidit, quia sicut mons non retinet aquas in cacumine descendentes sed descendunt mox ad convalles, ita domus in cacumen elevanda erat ut descendentes supra se imbres et grandines non retineret sed mox a se demitteret.

⁴⁰ Kilwardby, *De Ortu Scientiarum*, p. 137: Aestimo etiam quod plus habeat ethica quam mechanica tum quia de nobilioribus agit, tum quia ad nobiliorem finem ordinatae, tum quia nobilioris est cognitionis.

⁴¹ Kilwardby, *De Ortu Scientiarum*, p. 129: Corporalis enim operatio plus decet plebeios et ignobiles, otium autem meditationis et studii plus nobiles, ut unuscuiusque secundum conditionem propriam congrua sit exercitatio.

development for centuries to come. Aristotle's political science had its own set of preoccupations and concerns which determined the form taken by political science. Of course, this was true of the use of Aristotle's works as the bases of other sciences as well.

The teaching of Aristotle's *Nicomachean Ethics* was required in Paris from 1215 on, even though only a partial translation in Latin was available at the time.⁴² Suffice it to say that, given the incompleteness of the text, the early interpreters of Aristotle, like Kilwardby, were not entirely accurate in their guesses about what it was that Aristotle was trying to say.⁴³ But these early commentaries did set some of the terms of the debate and their influence can be seen centuries later.⁴⁴ The whole of Aristotle's *Nicomachean Ethics* was made available to the Latin reader for the first time in 1246 or 7 when Robert Grosseteste (c. 1170-1253), bishop of Lincoln, finished his complete translation of the *Ethics* into Latin.

Several commentaries on the *Nicomachean Ethics* and *Politics* which address the nature of political knowledge survive from the thirteenth century.⁴⁵ The best known were written by Albert the Great (ca. 1200-1280) and Thomas Aquinas (ca. 1225-1274), members of the mendicant order of the Dominicans. By the time Aristotle's *Ethics* and *Politics*, Albert was in Paris, having been sent there in 1243 or 1244 by the master

⁴² Marenbon, *Later Medieval Philosophy*, p. 16.

⁴³ This has been shown by R.A. Gauthier, "Arnoul de Provence et la doctrine de la fronesis, vertu mystique supreme," *Revue du moyen age latin* 19 (1963), pp. 135-170 and elaborated on in Anthony J. Celano, "The End of Practical Wisdom: Ethics as Science in the Thirteenth Century," *Journal of the History of Philosophy* 33 (1995), pp. 225-243.

⁴⁴ See for example Pufendorf's use of the ethica docens-utens distinction below.

⁴⁵ The commentaries on the *Politics* and the contents of many of them are listed in Flüeler, *Politica*. Particular questions on the nature of political knowledge in the thirteenth and early fourteenth century include besides Albert and Aquinas, Peter of Auvergne (bk.1, qq. 1-4), MS Milan (bk. 1, qq. 1,3), MS Pal. Lat 1030 (bk. 1, qq. 1-3), Jean of Jandun on Libri Oeconomice (bk. 1, q.6).

general of his order. After lecturing on the *Sentences*, he became a Regent Master in theology in one of the two Dominican chairs. In 1245, Thomas Aquinas began his studies in theology under Albert's instruction.⁴⁶ In the summer of 1248, Albert and Aquinas left Paris to found a new Dominican school of higher learning (*studium generale*) in Cologne.

Over the course of the next few years (ca. 1250-52), Albert used the newly available materials to lecture on the *Ethics*, and the result was a commentary known today as the *Super Ethica*, written in the scholastic style of a running textual commentary (*expositio litterae*) followed by questions and answers on the text (*quaestiones*). Albert's lectures on the *Ethics* were transcribed by Aquinas, and there can be little doubt of the impression they left on their scribe.

Albert's role in the Dominican order went beyond teaching. In 1254, he was elected prior provincial of the Dominican Province of Teutonia, which included over fifty priories and cloisters of nuns. While serving as a lector at the school in Cologne, he had been asked to arbitrate between disputing parties, and there is no doubt that the task of administering his province had provided Albert with experience in "politics" of an informal kind by the late 1250s.⁴⁷ Such experience could only have been augmented upon his appointment by the Pope to the bishopric of Regensburg in 1260. Just one year later, Albert traveled to Italy to resign his post as bishop, and it was there he was to stay for the next couple of years, in Viterbo and Orvieto at the court of the Pope of Urban IV.

⁴⁶ James A. Weisheipl, "The Life and Works of St. Albert the Great," in *Albertus Magnus and the Sciences*, ed. James A. Weisheipl (Toronto, 1980), pp. 13-51, p. 23.

⁴⁷ The question of the relationship between ecclesiastical "politics" and politics more generally has begun to be taken up by Matthew Kempshall. This is an important line of inquiry, though, and deserves much more research.

Aquinas was a lector at the Dominican priory in Viterbo and Aquinas and Albert discussed the new translation by William of Moerbeke of Aristotle's *De motu animalium*.

Around the same time, Albert revisited the *Ethics*, writing a paraphrase of the book. In 1260, William completed a partial translation of the *Politics* (*Politica imperfecta*) in Greece, finishing the translation (*Politica integra*) around 1265 at the Papal Court.⁴⁸ Albert wrote a commentary on the *Politics* sometime afterwards, probably between 1267 and 1280.⁴⁹ Finally, Aquinas wrote a commentary of his own on the *Ethics* in 1271-2 in the style of *expositio litterae*, but without the *quaestiones*.⁵⁰ Aquinas wrote a partial commentary on the *Politics* sometime between 1269 and 1271, which was completed by Peter of Auvergne (1240/50-1304) sometime between 1272 and 1295. Peter also wrote a series of questions on the *Politics* around the same time. Besides these commentaries, Albert and Aquinas discussed the theory of human action in a number of other writings, perhaps most notably in Aquinas's *Summa theologica*.

Utens-Docens

The full translation of the works was significant for discussions of the nature of practical philosophy not only because of the newly available contents of those works, but because the very existence of such theoretical treatments of ethics and politics stimulated reflection on theory and practice in practical philosophy. In prefatory material to the

⁴⁸ Willy Vanhamel, "Biobibliographie de Guillaume de Moerbeke," in *Guillaume de Moerbeke: Recueil d'études à l'occasion du 700e anniversaire de sa mort (1286)*, eds. Jozef Brams and Willy Vanhamel (Leuven, 1989), pp. 301-383. Moerbeke's translation is available in *Aristotelis Politicorum libri octo cum vetusta translatione Guillelmi de Moerbeke*, ed. Franz Susemihl (Leipzig, 1872).

⁴⁹ Flüeler, *Politica*.

⁵⁰ Georg Wieland, "The reception and interpretation of Aristotle's Ethics," in the *Cambridge History of Later Medieval Philosophy*, Norman Kretzmann, Anthony Kenny, Jan Pinborg and Eleonore Stump, eds. (Cambridge, 1982), pp. 657-672, pp. 659-662.

commentaries on these works—both the partial and full translations—commentators tried to imagine how there could be written theoretical works of practical philosophy, which as we have seen in our discussion of Alfarabi, was meant to be a kind of skill knowledge based on experience and practice. In response to this puzzle, the commentators applied the *utens-docens* distinction to ethics and politics.

A distinction between *ethica utens*, practical ethics, and *ethica docens*, academic ethics, was noted in the very earliest commentaries on Aristotle's ethics. Drawing on Avicenna, who made such a distinction with respect to medicine, the commentators on the *Ethics* posited a theoretical and practical side within ethics, apart from the general classification of the arts into theoretical and practical disciplines.⁵¹

There are two criteria which distinguish *ethica utens* and *docens*, namely, aims and methods. *Ethica utens* aims at actions themselves, while *ethica docens* treats ethics as a subject of study and discusses propositions about ethics. These two ways of considering ethics were associated with different methods. *Ethica docens* demanded more rigorous methods, while *ethica utens* used the methods of example or imitation.

An anonymous commentator on the partial translation of the *Nicomachean Ethics* distinguished between the kinds of method necessary to learn academic and practical ethics. There the distinction was drawn between the person “who wishes to have knowledge (*cognitio*) of moral philosophy,” and the person “who wishes to become a good man.” The distinction drawn here between the two possible aims of moral philosophy broadly understood—knowing moral philosophy in an abstract sense and becoming a good person—would be repeated thousands of times over the following

⁵¹ Wieland, “*Ethica docens—ethica utens*,” p. 599.

centuries. Theory and practice would become rival ways of living and thinking rather than complementary approaches to knowledge. The same commentator explained that the man who wished to have knowledge should use “the uncertain method” while the man who wished to become good should use “the method of examples or parables.”⁵²

Another early commentator conceived of the aims of practical and theoretical knowledge differently. According to the commentary on the more complete, but still not complete, translation (*vetus et novus*) of the *Ethics* (falsely attributed to the Franciscan master John Peckham (d. 1292)), one sort of method is required when teaching a subject while another sort is required when applying what one has learned. He distinguished further between disciplines where teaching the subject matter and applying the subject matter require the same method and those where they require different methods. There are, on this account, two kinds of knowledge, one where “there is the same method of proceeding in teaching and practice,” and one where there is not. For example, the theory of logic or demonstration, such as appears in the *Posterior Analytics*, requires the same sort of thinking whether taught in the classroom or applied by the philosopher. There are other subjects which we think about differently depending whether we are teaching them or applying them, and he included “the subject matter of the *Topics* and civil science” among these.⁵³ Though the commentator did not state in this passage what he took to be

⁵² *In Ethicam veterem*, Ms. Codex Avranches 232, f. 93r: “Per hanc doctrinam potest instrui aliquis, qui intendit habere cognitionem moralis philosophiae, et apud ipsum est incertitudinalis modus. Et potest iterum instrui operans, qui intendit fieri bonus, et ei expedit modus exemplaris et parabolicus. , quoted in Georg Wieland, “Ethica docens—ethica utens” in *Sprache und Erkenntnis in Mittelalter*, ed. Jan p. Beckmann et al. (Berlin, 1981), p. 597

⁵³ Pseudo-Peckham, *In Ethicam novam et veterem*, Ms. Oxford, Bodl. misc. lat. 71, f. 8 ra: Duplex est scientia: quaedam in qua idem est modus procedendi in docendo et utendo, et talis non habet determinare modum procedendi (quoad usum), et talis est doctrina Posteriorum; alia est in qua differt modus procedendi

the method of teaching the subject matter of the *Topics* or civil science, the important point is that whatever the method, whether through parable or orderly presentation of material in propositions, it is not the same as the kind of thinking required when applying these disciplines. So the skills that make one good at teaching civil science—whether they consist of the ability to tell a good story or to arrange material in an orderly and concise fashion—are not the same as the skills of a good leader. The thinking of an applied logician and a teacher of logic, the argument runs, are much closer.

This is both an expression and abstraction of the reality that in some fields the scientist and the practitioner are very far apart, while in other fields they are one and the same. As will be recalled, discussion of the distance between the medical professor and the street healer stimulated great controversy during this period. This controversy, in turn, reflected a broader conflict between the learned knowledge of the rising universities the untutored practitioners of the subjects corresponding to the university disciplines. If political science and applied political science required fundamentally different thinking and fundamentally different talents then the gulf between theory and practice would indeed be very real. If on the other hand, no such fundamental differences existed and there was no such theory of politics, then any supposed gulf between theory and practice would disappear completely.

The difference between these two commentators may be explained in the following terms. The second commentator assumed that political knowledge must be practical knowledge while the first commentator assumed that there can be a kind of

in docendo et utendo, talis est doctrina Topicorum et scientia civilis, et talis determinat modum non quoad doctrinam, sed quoad usum, quoted in Wieland, “Ethica docens—ethica utens,” p. 597.

theoretical knowledge of practical subjects. Both commentators in fact make room for what we might think of as a science of politics or at least a theoretical presentation of the facts or propositions about politics, but they would conceive of the status of these presentations differently. For example, both authors would agree that it was possible to teach carpentry via a written manual setting out the principles of carpentry, such as the qualities of different woods, the usefulness of different kinds of tools, etc... The first author might entitle such a manual “the theoretical science of carpentry set out in principles” while the second author might only modestly claim “how to learn carpentry in ten easy steps.” The second author is much closer to the spirit of a virtue theory of knowledge in which the knowledge itself is said to be in the exercise and not in the means used to acquire such knowledge.

Like these commentators, there is reason to believe that Albert also thought that there was scientific *docens* knowledge of politics. He certainly thought that this was the case with ethics. “It must be noted that the method [of this discipline] in so far as it is *utens* is persuasive, in so far as it is *docens* is demonstrative just as any other science.”⁵⁴ Albert presumably would have thought that politics was equally susceptible to a *docens* approach and so to scientific demonstration.

Aquinas similarly applied the *ethica utens-docens* distinction to political knowledge. In the *Summa theologica* Aquinas considered an objection that politics, among other disciplines, cannot be part of prudence because it is a science. To this, he responded that “here domestic and civic prudence are not to be taken as sciences, but as

⁵⁴ Albertus Magnus, *Super ethica commentum et quaestiones*, ed. W. Kubel in *Opera omnia*, XIV in 2 vols. (Münster in W., 1968, 1987), I, p. 4, vv. 37-43: Dicendum, quod modus huius, in quantum est utens, est persuasivus, in quantum est docens, est demonstrativus sicut cuiuslibet alterius scientiae.

kinds of prudence.”⁵⁵ The response implies that it was commonplace by the early 1270s to think of political knowledge as a kind of theoretical knowledge as well as a kind of practical knowledge.

The possibility of a docens science

Albert and Aquinas both argued that there could be a *docens* science of ethics and politics. There are several possible reasons they thought such a theoretical science of these subjects was possible. They may have been participating in a more general project to argue for scientific knowledge as part of the legitimization of universities. The universities, as relatively new institutions, were keen on establishing a special class of abstract “teacherly” knowledge consistent with the definition of science in Aristotle’s *Posterior Analytics*. In some cases, this was because there were strong rival claims to knowledge, such as in the case of medicine, where there were healers of all kinds in addition to university-trained physicians. Thus it may have been important to those who wished to teach politics in the university to establish a firm basis for their contention that there was a *docens* science of politics in addition to the practical political knowledge employed by rulers and administrators. They may also have been motivated to argue for a *docens* political science to reconcile the existence of Aristotle’s theoretical description in his *Politics* with the familiar notion of it as a kind of practical knowledge. Finally, they

⁵⁵ Thomas Aquinas, *Summa Theologica*, II^a-II^ae q. 48 ad 2: Ad secundum dicendum quod oeconomica et politica non accipiuntur hic secundum quod sunt scientiae; sed secundum quod sunt prudentiae quaedam. The Latin text of Aquinas’s *Summa* used throughout is the *Summa Theologiae* (Leonine ed., Rome, 1888) and the English translation used is *The “Summa theologica” of St. Thomas Aquinas*, trans. Fathers of the English Dominican province (London, 1920). Occasionally the translation has been emended to make the meaning clearer in the context of the discussion.

may have been concerned to argue for a *docens* science in order to make a place for the principles of ethics and politics.⁵⁶

Though Albert and Aquinas would argue that there can be a *docens* science of ethics and politics, they were equally well aware of the many reasons why such subjects could not be claimed as sciences if it were understood as a form of practical knowledge. Even before the translation of book VI of the *Ethics* revealed the Aristotelian taxonomy of intellectual virtues and opposed prudence to science, the masters were aware of Aristotelian arguments against the scientific knowledge of human action. Perhaps the key argument appeared in chapter nine of Aristotle's *De Interpretatione*, in which Aristotle argued against a deterministic view according to which future events are said to be necessary. Among other arguments in the chapter, Aristotle maintained that the fact that people deliberate proves that not all outcomes are predetermined.⁵⁷ For if the outcome of future contingents were determined it would make deliberation about the future pointless, which surely cannot be, since we are naturally endowed with the capacity to deliberate about the future. The fact that there are at least some cases of human action in Aristotle's view in which an agent deliberates, that is, entertains the thought of doing or not doing something, means that for Aristotle there are at least some cases in which human action could have been otherwise.

⁵⁶ A version of this claim appears in Celano, "The End of Practical Wisdom," p. 242, where he argues that the thirteenth century authors took a more scientific approach to ethics than Aristotle because of their commitment to a universal morality and a fixed conception of the end for man, expressed in natural law principles. Celano's concept of science is related but distinct from the concept here. He is interested in contrasting the flexible view of practical reasoning in Aristotle with the more routinized combination of prudence and natural law in the thirteenth century commentators. My focus is in this chapter is more on the contrast between conceptions of ethics and politics as theoretical and practical knowledge.

⁵⁷ Aristotle, *De Interpretatione*, 18b26.

Aquinas elaborated on Aristotle's characterization of human action and deliberation in his commentary on the *De Interpretatione* written in 1271. He provided different arguments for the contingency of human actions, and agreed that science is concerned with necessary things and prudence with contingent things.⁵⁸ The principal source of variability in human actions according to Aquinas is the infinity of circumstances which individuate actions. "It is because the infinite number of singulars cannot be comprehended by human reason, that 'our counsels are uncertain' (Wis. 9:14)."⁵⁹ Here, Aquinas expanded on Aristotle's notion that actions are particulars. He applied Cicero's seven rhetorical circumstances to Aristotle's discussion of the particulars of an action in *Nicomachean Ethics* III. The circumstances correspond to seven questions that can be asked of an action: who, what, where, by what aids, why, how, and when. Aquinas's view was that this set of circumstances individuate an action and characterize it as a particular action. Aristotle used some of these circumstances to show that an action can be described as voluntary or involuntary, while Aquinas used the circumstances for a number of purposes, including the determination of whether a given act is sinful or not.⁶⁰

Aquinas proposed another source of variability that is internal to the agent. This source is also part of what Aquinas sees as contributing to free will and the contingency of human action. Human freedom for Aquinas is not the operation of a will which arbitrarily chooses between options. This would be to commit the so-called homuncular

⁵⁸ On the definition of science and prudence, Thomas Aquinas, *Summa Theologica*, IIa IIae q. 47 a. 5.

⁵⁹ Thomas Aquinas, *Summa Theologica*, IIa IIae q. 47 a. 3 ad 2.

⁶⁰ Aquinas, *Summa Theologica*, Ia IIae q. 7 aa. 1-2; citing Aristotle, *Nicomachean Ethics* 1110bff. and Cicero, *De Inventione*, bk. I.

fallacy, by which one imagines that the will is a kind of smaller version of oneself which makes one's choices. It is a fallacy because it is not clear what the basis of the homunculus's freedom would be any more than it would be clear what the basis of one's own freedom would be. Aquinas's view of freedom was instead a property of his entire theory of human action, a function of the way that goods are represented to the desires and the judgments that are made about them.⁶¹

Aquinas was concerned that there may be a determinism caused by the presentation of irresistible goods that would operate necessarily on the human will, which is understood to be an inclination towards the good. Happiness is such a good, and any goods without which one cannot be genuinely happy are also such goods, such as living and thinking. But not all goods are of this kind, and especially not the particular goods to which human actions direct themselves. The source of contingency and free choice (Aquinas equated them) is in the presentation of given actions to the will. In the case of particular means to necessary ends there is freedom because either one need not represent any particular means as necessary to achieve an end or because one need not conceive of a particular action as an instance of a necessary good. For example, it may be that several different foods would satisfy one's hunger, so one can be said to be free in choosing between them.⁶²

Albert and Aquinas's recognition of the contingency of human actions did not lead them to deny the possibility of any scientific knowledge of human actions. Each

⁶¹ Eleonore Stump, *Aquinas* (London, 2003), pp. 277-307. This view of the free will is quite similar to Boethius's in the *De Consolatione*, bk. v.

⁶² Thomas Aquinas, *Expositio Peryermeneias*, lib. 1 l. 14 n. 24. Thomas Aquinas, *Aristotle: On interpretation*, trans. Jean T. Oesterle (Milwaukee, 1962), pp. 119-120.

made a crucial distinction between knowledge of the contingent matters in themselves, that is, the particular events or actions and the general principles which characterize such actions. Both Albert and Aquinas inferred from the generally held view that there can be knowledge of contingent matters in natural philosophy to the conclusion that there can be such knowledge of contingent matters in practical philosophy.

Albert had argued that there could be a science of nature in his commentary to the *Physics* written in Cologne probably shortly before 1250. Albert rejected the objections of the pre-Socratics that natural phenomena were too variable and Ptolemy's objection that the Aristotelian standard of demonstrative knowledge was possible only in mathematics. The variety of natural phenomena did not mean that there could not be a science, because science considers the species rather than the individuals, and natural species have essential properties which can be demonstrated and attributed to causes.⁶³

Around the same time, Albert made the more controversial claim that there can be a science of morals in so far as it is understood as *docens*. In the prologue to the *Super Ethica*, he considered several objections to the possibility of there being scientific knowledge of morals just as he had considered the question of whether there could be scientific knowledge of natural phenomena. There were four objections: science must be of necessary things, but morals are not necessary since they depend on the will; all science is greatly aided by knowing something, but this is not the case with morals; all science is concerned with universals, but moral reasoning is concerned chiefly with particulars; all science is of unchanging things, but morals are not unchanging. As in

⁶³ William A. Wallace, "Albertus Magnus on suppositional necessity in the natural sciences," in *Albertus Magnus and the Sciences*, pp. 103-128, pp. 111-112.

natural philosophy, Albert argued that there can be a science of morals since its properties can be demonstrated. Albert responded to the objections in turn. To the objection that morals are not concerned with necessary matters, he responded that one must make a distinction between moral actions in themselves and moral actions considered with respect to their intentions and reasons. Considered in themselves, they are not necessary and not subject to demonstration. Considered with respect to their reasons and intentions they are necessary and there can be a science of them in just the same way there can be a science of contingent natural phenomena due to their general principles.⁶⁴

Albert invoked the *utens-docens* distinction to respond to the last three objections. To the objection that there is not a science of morals because all sciences are aided by knowing something, which is not the case with morals, he argued that it is not helpful to know something in morals understood as practice, but it is very helpful to have knowledge when considering morals in theory. To respond to the objection that all science is concerned with universals (which is not the case with morals), he claimed that as practice (*utens*), morals are concerned with particulars, as theory (*docens*), with universals. Finally, to the objection that science is of unchanging things and morals are changeable, he argued that there are diverse moral actions with respect to practice, but the principles of the theory are the same for everyone. Aquinas held identical views. He thought that there could be scientific knowledge of contingent things, including the moral

⁶⁴ Albertus Magnus, *Super Ethica*, 1, p. 2, vv. 11-19.

sciences.⁶⁵ On his account, such knowledge of the universal principles of actions are known indirectly through the intellect.⁶⁶ In morals and politics the universal principles are principles of natural law and principles derived from the natural law.

There is only one exception to Albert and Aquinas's view that there is no scientific knowledge of particulars. The exception is the special case where there is only one possible means to an end:

When a thing can be accomplished by one means, but in different ways, doubt may arise, just as when it can be accomplished by several means: hence the need of counsel. But when not only the means, but also the way of using the means, is fixed, then there is no need of counsel.⁶⁷

Thus there is no scientific knowledge according to Albert and Aquinas of particular actions—except perhaps in this special case where there is only one means—but there can be scientific knowledge of ethics and politics understood as theory, as a set of universal principles, that is, in a *docens* sense.

An explanatory ethical science of politics, or how to write a theoretical guidebook to a practical discipline harmonious with free choice

Albert's categorization of politics as a branch of ethics affected his considerations of how it should be taught and for what purpose. He argued that when Aristotle said that

⁶⁵ Aquinas, *Summa Theologica*, I^a q. 86 a. 3 s. c: Sed contra, omnis scientia est in intellectu. Sed quaedam scientiae sunt de contingentibus; sicut scientiae morales, quae sunt de actibus humanis subiectis libero arbitrio; et etiam scientiae naturales, quantum ad partem quae tractat de generabilibus et corruptibilibus. Ergo intellectus est cognoscitivus contingentium.

⁶⁶ Aquinas, *Summa Theologica*, I^a q. 86 a. 3 co: Dictum autem est supra quod per se et directe intellectus est universalium; sensus autem singularium, quorum etiam indirecte quodammodo est intellectus, ut supra dictum est. Sic igitur contingentia, prout sunt contingentia, cognoscuntur directe quidem sensu, indirecte autem ab intellectu, rationes autem universales et necessariae contingentium cognoscuntur per intellectum. Unde si attendantur rationes universales scibilium, omnes scientiae sunt de necessariis. Si autem attendantur ipsae res, sic quaedam scientia est de necessariis, quaedam vero de contingentibus.

⁶⁷ Aquinas, *Summa Theologica*, Ia IIae q. 14 a. 4 ad 3. Cf. Aquinas, *Expositio Peryermeneias*, lib. 1 l. 14 n. 24: In his enim in quibus media sunt determinata, non est opus consilio, ut dicitur in III Ethicorum. Aquinas, *Aristotle: On interpretation*, p. 120.

politics was the chief science this was only in comparison to the mechanical arts. The principles that govern politics and are used in syllogisms when teaching politics are borrowed from ethics.⁶⁸ Thus, what Albert thought the purpose of a university discipline of politics was can be gathered in part from what he thought the purpose of such a discipline of ethics was. The commentators on the *Ethics* considered the possibility that moral education was purposeless, since it was useless for the wicked and unnecessary for the good. Eustratius wrote that instruction in ethics was actually useful, since it made good men more conscious of what they were doing and gave bad men a chance to mend their ways.⁶⁹

If Albert's political science was in some sense an ethical science, and differed from natural philosophy accordingly, it shared the aim of explanation with natural philosophy more closely. Unlike ethics, politics had a set of political institutions that needed to be explained. This made the task of differentiating political science from natural philosophy more difficult but just as important if politics was to be preserved as a human activity. Political institutions needed to be explained in a way which was considered satisfactory from an explanatory point of view while preserving free choice and human dignity. There is no question that Albert meant for his political science to illustrate the role of ethical principles in political life, but they serve an explanatory function in the political science as much as a normative or practical function. Values and principles are used as much to explain as they are to instruct. So, Albert's political science may have had the improving purpose suggested by Eustratius, but if so, it still

⁶⁸ David A. Lines, *Aristotle's Ethics in the Italian Renaissance (ca. 1300-1650): the universities and the problem of moral education* (Leiden, 2002), p. 146.

⁶⁹ Lines, *Aristotle's Ethics in the Renaissance*, p. 142.

resembled his approach to other sciences in emphasizing causal explanation and the relation of phenomena to principles.

Albert was concerned with many of the methodological issues which would haunt the history of political science for the next few centuries. Albert clearly wished to distinguish his political science from his natural philosophy. In doing so, he spoke to the contemporary issue of “reducing” the social sciences to the natural sciences, either in the sense of reducing human action to external physical stimuli or in the sense of reducing the method of the social sciences to the model used in the physical sciences. He shared both concerns.

In the next section, I show how Albert’s views were distinctive in this direction by comparing his commentary on the relevant sections of Aristotle’s *Politics* with the commentary of Aquinas or Peter, depending who commented on the relevant passage. In doing so, I show that Albert minimized the role of instinct in his interpretation of Aristotle’s categorization of man as a political animal and his account of the origins of conjugal and master-servant communities. Moreover, Albert stressed the importance of moral principles and the goals of human life throughout, even reinterpreting Aristotle on the role of stratagems in politics so that it appeared wholly in line with Albert’s vision of an appropriate ethical science.

Albert’s concern about the relationship between natural philosophy and political science can be seen clearly in his account of the difference between humans and animals, and especially with regards to social life. Albert distinguished between political behavior and animal behavior in his great zoological work, the *De Animalibus*, which he wrote

before his *Politics* commentary, and probably even before he read the *Politics*.⁷⁰ In a crucial passage, Albert compared the “government of life” (*regimen vitae*) of humans and animals. Animals sometimes appear to have virtues and to employ government, as the goose and cat imitate shame, the lion generosity, while bees and cranes imitate monarchy. This is not real virtue or government but an imitation of the human kind. “Therefore, animals which participate in a lifestyle only participate in it through some sort of imitation, for the principle of their actions does not possess virtue but rather some natural inclination to a likeness of virtue.” This is indicated by the fact that what appear to be instances of the virtues in animal can be shown by careful observation not to be virtuous at all. Bees “do not, however, share with any other swarm, either by sharing the work or by distributing what is loss or profit, and they exhibit no piety towards the parents from which they emerged.” The key difference is that animals act out of instinct rather than for ends. “But by the same token, they do not do what they do for the end of that social happiness which lies in the richness of home and family. Neither do they do it for the end of that social happiness which lies in the perfect and prudently accomplished governance of a people.”⁷¹

Albert took his basic methodological approach to a distinctively human political science from Aristotle and then applied it more consistently than Aristotle himself did. Aristotle set out his methodological principle at the very beginning of the *Politics*: “Every state is a community of some kind, and every community is established with a view to some good; for everyone always acts in order to obtain that which they think is

⁷⁰ Albertus Magnus, *On animals: a Medieval Summa Zoologica*, trans. and ed. Kenneth F. Kitchell, Jr. and Irvn Michael Resnick (2 vols., Baltimore, 1999). There is no mention of the *Politics* in the *De Animalibus*.

⁷¹ Albertus Magnus, *On animals*, I.1.4, pp. 65-6.

good.”⁷² Albert paid close attention to this principle, which would be his guiding methodological principle throughout his commentary. “From this [Aristotle] concludes,” wrote Albert, “that all people so acting with respect to their own actions, ‘conjecture some good.’ And he says ‘they conjecture,’ because this knowledge is *utens*, not *docens*. So it is directed more to experience than to theory.” Albert explained that the reason that political thinking was *utens* and so relied on experience, as signaled by Aristotle’s use of the word “conjecture,” in that knowing what to do for the sake of the ultimate good of society is dependent both on an idea of the good and the relevant circumstances of the situation at hand. “They conjecture the good therefore to which they wish to arrive, according to the circumstances both of the agents and the actions.”⁷³

This seems an odd statement for Albert to make in a work of theoretical political science. How can he say that politics is an *utens* discipline when he himself is writing a *docens* work? Albert was dedicated to what he took to be Aristotle’s solution to this dilemma of writing a textbook of practical philosophy, namely, a discussion of what it is that people should do based on their understanding of what the good is, for a number of reasons. This approach allowed Albert to develop a science of politics that was at once

⁷² Aristotle, *Politics*, I.1, 1252a1.

⁷³ Albertus Magnus, *Commentarii in octo libros politicorum Aristotelis in Opera Omnia*, ed. August Borgnet (38 vols., Paris, 1890-5), VIII, pp. 7-8: Ex hoc concludit, quod omnes sic operantes in omnibus operibus suis, *bonum aliquod conjecturant*. Et dicit *conjecturant*, quia haec scientia utens est, non docens: eo quod usus magis attenditur quam doctrina...Conjecturant ergo bonum ad quod cupiunt pervenire, ex circumstantiis et agentium et actuum. Albert was relying here on Moberbeke translation of the *Politics*, which provides *manifestum quod omnes bonum aliquod conjecturant* for *δηλον ὡς πάσαι μὲν ἀγαθοῦ τινοῦ στοχάζονται* (*Politics* 1252a1). *Conjecturant* is an interesting choice for translating *στοχάζονται*, which means both to guess and to aim at something, in this case the good. *Conjecturo* does not appear in classical Latin, though *conjectura*, meaning pretty much “conjecture,” does appear. Leonardo Bruni was clearly annoyed by *conjecturant* and revised the translation to read *conjectant* from *conicio*, which means both to conjecture and to shoot or aim at a target, among other things, thereby preserving the ambiguity of the Greek. This moment of philology is worthwhile, since it is important to see how exactly these authors and translators were imagining the process of political reflection.

explanatory, consistent with free choice, and normative. It was explanatory because it discussed the purposes of political institutions as final causes, that is, as explanations for why something was the case. This reasoning was familiar from other Aristotelian sciences which Albert practiced, such as the description of the parts of animals. Just as animals have pointed teeth for the purpose of chewing meat, a political community has the division of labor to provide for self-sufficiency, which is understood to be an aim of political community. Such a science is consistent with free choice because the purposes of the community are not hard-wired in man's nature but freely chosen. And it is a normative science since it is concerned with men's values and passes judgment on these values. Albert's account is descriptive in the sense of noticing different views of what the good consists in but normative in believing that there is a good which is consistent with what would be freely chosen by all if they understood properly what their good consisted of. Like survey research of the present, it is an inquiry into the values held by different sorts of people and explains institutions and behavior in the light of those values. Albert does not attempt to explain political behavior institutions or behavior in terms of natural impulses or qualities except in so far as humans take these into account as conditions in reasoning about how to achieve their good.

When Albert turned to the argument in book 1 of the *Politics* that humans are naturally political animals, he had this material from his *On Animals* in mind. He was concerned there, as elsewhere in the work, to preserve the distinctive human quality of political activity and institutions. Neither Albert nor Aquinas develop any sort of natural instinct here though Aristotle briefly suggests that there is one.⁷⁴ In leaving the hint at a

⁷⁴ Albert, *Politica*, I.1, p. 9b, litt. y, where Albert wrote almost nothing on the natural impulse.

natural instinct undeveloped, Albert distinguished human political behavior from animal behavior. So he contrasted the political behavior of humans with that of a flock of cranes, which he says fly in “letter formation,” using the same example he used in his *On Animals* when distinguishing between animal and human political behavior there.

Rather, both Albert and Aquinas took seriously the argument that men are naturally political animals owing to their capacity for speech. This is in some sense an argument of the kind that was familiar from Aristotelian natural philosophy, but which had no reductionist implications. Aristotle argued that the fact that men have speech unlike other gregarious animals shows that they must be fit for political life since otherwise nature would have given them speech in vain. And, it is a fixed principle in Aristotelian natural philosophy that nature does nothing in vain. Albert recognized that this was a typical argument from natural philosophy. It compared a distinctive feature of a species against the features of the relevant genus, here the gregarious animals. The relevant genus provides the limitation on the possibilities, here that there would be some sort of communication through sound. Yet humans were given the power of articulated speech in order to share articulate conceptions of justice and the good.⁷⁵ Here he distinguished between natural philosophy and political science in the sense of distinguishing between the causes of animal and human behavior, while the method of explanation, namely, the argument that nature does nothing in vain was familiar from natural philosophy.

⁷⁵ James G. Lennox, “Nature does nothing in vain,” in *Beiträge zur antiken Philosophie. Festschrift für Wolfgang Kullmann*, eds. Hans-Christian Guenther und Antonios Rengakos (Stuttgart, 1997), pp. 199-214.

The difference between men and other creatures is reflected in Albert's concern that the methodology of the sciences which study them should also be distinct. Albert's distinction between political science and natural philosophy in terms of methods of explanation is apparent in his discussion of the "component parts" of the political community, that is, the subsidiary communities between husband and wife, master and servant, and the village. He explained the differences between these communities in light of their final causes and suppressed any attempt to explain them in terms of material or efficient causality. As Aristotle suggested, these communities must be differentiated by species since, as Albert wrote, "they aim at goods which differ in kind."⁷⁶ Albert's interpretation will emphasize the fact that these subsidiary communities differ because of their joint purposes, their idea of the good, just as the regime types will differ for this reason.

An instance of Albert transforming an efficient cause explanation of Aristotle's into a final cause explanation of his own appears in his discussion of the differences between the subordinate communities to the political community, including the communities of husband and wife. Aristotle wrote that "there must be a union of those who cannot exist without each other; namely, of male and female, that the race may continue (and this is a union which is formed, not of choice, but because in common with other animals and with plants, mankind have a natural desire to leave behind them an image of themselves)."⁷⁷ Albert suppressed the notion that this community was "not of choice" (*non ex electione*), ignoring that phrase completely in his commentary,

⁷⁶ Albert, *Politica*, p. 9a, litt. e: diversa bona specie conjecturant.

⁷⁷ Aristotle, *Politics*, I.2, 1252a25-30.

discussing it rather in the conventional terms of practical reasoning about one's ends, that is, the good of the "preservation of the species." It is clear from the context that he thought that this was a good of the kind that could be chosen and aimed at, though the desire to do so was natural and given by God. Albert is equivocating here, but the effect is certainly to de-emphasize the sense of natural compulsion.⁷⁸

Aquinas argued otherwise, taking up the explication of "not of choice" deliberately in his commentary. For him, the point is that there is a "natural appetite," common to men and animals. "This then does not belong to him as a result of choice, that is, in so far as he has a reason that chooses; rather it belongs to him in so far as he has a reason that is common to him and to animals and even to plants."⁷⁹ Since the dating of Albert and Aquinas's commentaries is uncertain, it is impossible to know whether Aquinas was responding to Albert's omission here. However, what is clear is that Aquinas wished to emphasize the existence of a natural basis to the conjugal relationship, if not to the political community.

On the subject of community between master and servant, the difference between Albert and Aquinas is subtle but significant. Albert reinterpreted the aim of the community to include not only the preservation of life but "the good living of the family" and welfare of the household. The effect of such a reinterpretation is to make the community between master and servant, though grounded in the natural mental deficiency of the servant, a matter of optimizing the good of the household rather than a

⁷⁸ Albert, *Politica*, p. 9a, litt. f

⁷⁹ Thomas Aquinas, "Commentary on the *Politics*," trans. Ernest L. Fortin and Peter D. O'Neill, in *Medieval political philosophy*, eds. Lerner and Mahdi, pp. 297-334, p. 303; Thomas Aquinas, *Sententia libri politicorum*, in *Opera* (Rome, 1971), XLVIII, p. A73b.

matter of survival. “Indeed he is the lord, who according to his excellence in wisdom and prudence, suitably guides and arranges those things through which the family, that pertain to the household, is able to best arrive to the height and full extent of its virtue.”⁸⁰ The effect of this is to hint that the community between master and servant is somewhat more a matter of choice than if the aim were merely survival. Aquinas’s reading is closer to the original, stressing that it is their survival that is at stake and so implying that this community is strictly necessary for both parties.⁸¹ Albert connected his opposition to the method of the best regime to his desire to fully investigate the varieties of regime types. In doing so, he opposed an empiricism of a kind to the method of best regime. This opposition appears in his commentary to book four of the *Politics*. It is now thought that books four to six may have been part of a different work of Aristotle’s or at least a separate essay of Aristotle’s which he later tried to integrate into the work as whole. These books have been characterized as the “empirical” books, while books one to three and seven and eight have been considered the “utopian” books. Albert noticed the break between these books, but did not characterize it in this fashion. This is because he opposed the method of the best regime on the one hand and reinterpreted the contents of book five as more ethical on the other hand. He himself characterized the contents of the middle books as follows: book four is concerned with specifying the division of regime types into species, as they had previously been divided by genus. The fifth book is about political change, and the sixth book is about the order of offices. The introduction to book

⁸⁰ Albert, *Politica*, I.1, p. 9b, litt. g: Dominus enim est, qui secundum mentem sapientia et prudentia praeditus, convenienter praeordinat et disponit ea per quae familia, quae ad domum pertinet, optime potest devenire ad suae virtutis optimum et extremum.

⁸¹ Aquinas, “Commentary on the *Politics*,” p. 304.

four he thought of as a general treatment of the causes of subdividing regimes into species. The first subsection of this is dedicated to the causes of subdividing regimes into narrow classes. The second subsection states which is the best regime (chap. 9a). The third subsection treats which regime is fitting for whom (chap. 10a).

Albert believed that this followed the general method of Aristotelian science. Up until this point, the work considered the differences of each regime by genus and so was subject to universal propositions as stated in the second book of the *Prior Analytics*. Now he considered the details of each regime type. He took the point of Aristotle's analogy to be that each individual should choose that occupation or kind of exercise to which he is naturally fit. "Just as, for example, he who has long thin legs is fit for running, and he who has hard bones and agile arms to boxing and the military."⁸²

The general tendency of Albert's reading is to emphasize that there is a best regime for every particular state, just as some people are fit for different occupations. In a sense, there is an acknowledgment that it is one of the tasks of political science to tend to less than ideal regimes, but Albert subsumed this task under the knowledge of what institutions are fitting for particular communities. He acknowledges briefly that there is an ideal and second best regime, but the main thrust remains that there is no single best ideal but rather the best for an individual regime. The ideal regime is one in which many are wealthy, while the less than ideal regime is the regime of the poor, since they have to earn their food by labor and therefore spend less time on issues of common concern.⁸³

⁸² Albert, *Politica*, IV.1, p. 318b, litt. a: Sicut verbi gratia, qui longa et gracilia crura habet, ad cursoriam: et qui dura ossa et brachia agilia, ad pugillatoriam et militare.

⁸³ Albert, *Politica*, IV.1, p. 319b, litt.c and 320a, litt. e.

In sum, the method of Albert's political science is much the same as his method of natural philosophy—a commitment to an ever more detailed definition and categorization of phenomena in line with their particular natures. The thrust of Albert's interpretation is against a utopianism or method of the best regime and towards a taxonomy of differences among constitutions. This is the force of Albert's recollection of Aristotle's passage in the *Nicomachean Ethics*, where the best shoemaker is said not to be the one who makes a single best shoe, but the one who fits a shoe best to the foot. While Aristotle argued that the task of political science is to deal with particulars because one cannot always realize the one best regime, Albert emphasized that the best was due to particular circumstances.

Once again, Peter's reading disagrees with that of Albert. Peter understood that the purpose of all practical sciences was to define the best disposition or institution. The same is the case for politics. To arrive at this view, he read the same text completely differently than had Albert. Where Albert had seen the point of Aristotle's discussion of the art of exercise and other occupations as an illustration that it is important to investigate the particular qualities of a person, Peter read these as examples of demonstrating what the best disposition of a given art was. "And if anyone should object that the art of exercise should not consider that best disposition, because no one attains to it, he [Aristotle] responds to this, saying that if anyone does not desire the best disposition, or what is possible for him, neither the knowledge, or the habit of that exercise, nevertheless the art of exercise should consider these things. Likewise the art of exercise ought to ...Similarly medicine considers health, and what and what kind of thing it is, to which and to which kind of body it corresponds. It even considers the dispositions

of bodies, that is, the complexions, and which complexion is best, and which complexion health is most in keeping with. ...And the reason for this is, since if any science consider any nature, it considers its qualities (*passiones*), it even considers all those which are attributed to that nature.” And the first quality of a science is the best disposition.⁸⁴

If Peter was an advocate of the method of the best regime, he was no utopian. Rather, he distinguished between the best regime (*politia optima*) and the conditionally best regime (*politia optima ex suppositione*). People err by mistaking these and only speaking about the best regime without qualification. “And therefore they consider only that which can hardly ever or never be.”⁸⁵ Laws are especially particular and need to fit the particular regime type, and even the particular regime within that type, since the ends of regimes vary and it is the end of the regimes that determines what the proper set of laws for that regimes should look like.⁸⁶

Albert’s approach is neither wholly empirical nor wholly deductive. Again, his ideas of political science can only be reconstructed from his commentary on Aristotle. But as in his other commentaries to Aristotle, there is evidence of an empirical mind at work and the comparison of Aristotle’s observations of the political institutions of his time with those of Albert’s own. But there is no sense of an empirical study of political behavior.⁸⁷

⁸⁴ Peter of Auvergne, *Scriptum super libros iii-viii politicorum*, ed. Christoph Flüeler and Lidia Lanza (forthcoming), sig. 72ra.

⁸⁵ Peter, *Scriptum*, sig. 72rb: Et ideo solum de illa que uix aut nunquam esse potest, considerauerunt.

⁸⁶ Peter, *Scriptum*, sig. 72va.

⁸⁷ Fioravanti, .

The distinctive character of Albert's Aristotelian political science is clarified further in his discussion of political change. In this discussion Albert showed how an ethical principle could be both explanatory and normative. He also showed how he conceived of the good as embodied in terms of general ethical principles which then needed to be applied to particular situations. This discussion begins a new section in the commentary, since according to Albert the preceding chapters are devoted to the study of the species of polities.⁸⁸ He reminded the reader that here as in all sciences the task is to find the relevant principle. The principle here is that in all the varied forms of regime the people acknowledge some principle of justice and equality.⁸⁹ This principle explains change because it is the misunderstanding of this principle which leads to disturbances and eventually to change in regime. So, for example, Albert explained that Aristotle "shows from where it arises that oligarchy appears, and from where the sin (*peccatum*) arises that changes it. Indeed because they are unequal in one regard, just as for example in wealth, in which the rich and poor are unequal, they think wickedly that they should be unequal in all matters of commutative and distributive justice, and from this sedition arises dissolving the polity."⁹⁰ Albert labeled such sedition *the* cause of political change.⁹¹ And in general in the discussion, he is more careful than Aristotle to point out the causal structure of the argument, always tying the propositions back to sedition as the

⁸⁸ Albert, *Politica*, v.1, p. 425b, litt. a.

⁸⁹ Albert, *Politica*, v.1, p. 425b, litt. b.

⁹⁰ Albert, *Politica*, v.1, p. 426a, litt. c: Deinde cum dicit, *Oligarchia autem ex eo*, etc. ostendit unde oligarchia transmutatur, et unde oritur peccatum transmutans eam: quia enim inaequales sunt in aliquo, sicut scilicet secundum substantiam, in qua divites egenis inaequales, putant et male quod in omnibus commutandis et distribuendis debeant esse inaequales: et ex hoc oritur seditio dissolvens politiam.

⁹¹ Albert, *Politica*, v.1, p. 427a, litt. f: Ex his eleicit quod seditioes sunt causae transmutationes politiarum.

cause of change. So Albert explained Aristotle's assertion that the mixed regime which includes elements of the other regime types is the most secure regime, by noting that "the cause of this is that it has no cause for sedition."⁹²

Albert's commitment to his mode of political science was so complete that he even absorbed Aristotle's discussion of stratagems in book IV of the *Politics* into the framework of an ethical science based on principles. According to Albert, Aristotle is continuing in book IV to teach what it is fitting or suitable to do even though to the modern reader the book is a collection of stratagems used by different groups in a regime against one another. One example of Albert's reinterpretation concerns a stratagem whereby Aristotle demonstrated how oligarchical legislators aimed at excluding the masses from political and military participation without their knowledge. The trick which oligarchical legislators use, Aristotle wrote, is to allow all to participate in assemblies and bear arms but impose fines for non-compliance only on the rich. The effect of the law is that only those subject to punitive action feel compelled to participate; there is simply no incentive for the poor to comply. Thus on the surface, the law appears charitable and broad-minded by exempting the poor from fines. Closer inspection, however, reveals its effect is oligarchical by ensuring that only the wealthy will be motivated to participate in the assemblies and to bear arms.⁹³

Albert commented that in this section, Aristotle "is teaching what it is fitting to usefully tell the people in assembly."⁹⁴ Albert's approach here was distorted by the

⁹² Albert, *Politica*, v.1, p. 429b, litt. p: Et quia ante dixit, quod politia quae simpliciter dicitur politia...*quae quidem est securissima talium politiarum*: huius causa est, quod nullam habet causam seditionum.

⁹³ Aristotle, *Politics*, IV.13, 1297a15ff., p. 2059.

⁹⁴ Albert, *Politica*, IV.10, litt. h, p. 388.

translation with which he was working. It took *πρόφασις*, or pretext, as *prolocutio* which means a “preamble” or “speech” instead. Later Latin translations made Aristotle’s meaning more plain. So, the translation of Leonardo Bruni (1369-1444) gave, “The things about which they dissimulate and falsely pretend to the people are five in number.”⁹⁵ Albert’s interpretation is not merely the result of mistranslation, and it is clear that Albert understood that there was dissimulation at work here, but the force of Bruni’s translation highlights it in a way that is lost in the old Moerbeke translation from the thirteenth century.

Albert understood the passage then not to be about five categories of tricks used by oligarchical lawmakers against the populace but rather those areas where it is appropriate to refer the matter in question to the populace. Aristotle is thus, to Albert’s mind, saying that these five subjects, namely, the assembly, the magistracies, the courts, arms, and exercises are fitting to be proposed to the people since they refer to the people.

Once again Albert applied his method of identifying the basic principles or axioms at work. Here he introduced a well-known principle of the time into the discussion to clarify the ethical basis of Aristotle’s conclusions: “Quod omnes tangit omnibus approbatur,” “What touches all is approved by all.”⁹⁶ This legal and ethical principle became the basis for understanding the conclusions about the five topics set out by Aristotle. The principle is ethical, it is implied, because it appears in the Bible when God commanded Moses to make two silver horns to assemble the whole people when the

⁹⁵ Cited in Albert, *Politica*, IV.10, p. 383: *Sut autem illa circa quae simulant ac fallaciter praetextunt ad populum, quinque numero.*

⁹⁶ Ulpian digest 1,1,1,1.

camp was to be moved. Since moving the camp affected the whole people, by ordering that the people be assembled beforehand God was embodying the principle of discussing with the whole people what affects the whole people.⁹⁷

Albert did not read the fact that only the rich were to be fined as a pretext for only including the rich in politics, but as a sound conclusion drawn from the ethical principle. The rich should be fined more than the poor for non-attendance at an assembly about concerns which touch all, since it pertains to the rich even more than the poor. For the same reason those who are honorable may not refuse to participate in an assembly about the choice of magistracies; since they are more fitting to be such magistrates they should be required to be present, but the poor may be excused. Again, there is recourse to the principle. The same holds for courts.

The most evident misreading in this passage is Albert's discussion of bearing arms and participating in exercises. It is at this point that Aristotle explains the basis of the trick, the fact that the effect of the fines, which first appear to be punitive, is to ensure the participation of the rich and not the poor. Albert, however, thought that Aristotle was referring here to a legal restriction which was familiar to Albert from his own day, namely, the inability of the poor to bear arms. "And this is preserved up until now in many states in which the prefect of the state assign horses and arms according to the capabilities of the citizens."⁹⁸ The poor do not bear arms because of their status not because they have been tricked. There is no trick here at all on Albert's reading, simply the just distribution of duties to the orders of society. In keeping with this reading, he

⁹⁷ Albert, *Politica*, IV.10, litt. i, p. 388.

⁹⁸ Albert, *Politica*, IV.10, litt. m, p. 389a: Et hoc adhuc servatur in multis civitatibus, in quibus praefectus civitatis ordinat equos et arma secundum facultates civium.

concluded that Aristotle meant the applied wisdom which was evident in the work of the legislators in oligarchies by the word *sophismata*, which was left untranslated in Moerbeke's translation of the *Politics*.

Peter of Auvergne read these texts completely differently and more as tricks. This section is concerned, according to his reading, with "the oligarchical laws through which they intended *sophistice* to exclude the multitude from the polity."⁹⁹ Peter grasped Aristotle's point exactly. Thus, Peter, following Aristotle, interpreted the oligarchical practice of only fining the rich for lack of participation as a law aimed at excluding the multitude. "From this it is clear that through this law the poor were excluded from political life (*a civitate*) because the rich on account of this great fine were compelled to come; by contrast, the poor, because they did not have to pay a fine, did not care to come, and therefore they did not participate freely in political life."¹⁰⁰ The same holds for offices. The rich ordained that the poor could hold office but were also free not to serve; the rich however were required to serve. Since the poor were occupied with other matters the effect was for the poor to be excluded. Peter argued similarly closely to Aristotle about judging and carrying arms.¹⁰¹

Aristotle (and Peter) presupposed a view of politics in which there were opposing interests. The oligarchs were opposed to the multitude and wished to use laws to exclude

⁹⁹ Peter of Auvergne, *Scriptum super libros iii-viii politicorum*, ed. Christoph Flüeler and Lidia Lanza (forthcoming), sig. 82vb: In prima tangit leges oligargicas per quas intendunt sophisticè excludere multitudinem a politia.

¹⁰⁰ Peter of Auvergne, *Scriptum*, sig. 82vb: Et manifestum est quod per istam legem pauperes excluderentur a ciuitate, quia diuites ex hoc quod dampnum magnum reportabant compellerentur uenire; pauperes, quia nullum dampnum reportabant, non curabant uenire, et ita non participabant ciuitate libenter.

¹⁰¹ Peter of Auvergne, *Scriptum*, sig. 82vb-83ra.

them from political participation. The ethical and scientific approach of Albert presupposed by contrast that there was a harmonious social order. The idea of a harmonious social order appears in a wealth of medieval literature under various guises but often as the theory of the “three orders” where society is conceived of as composed of by a class of those who pray, those who fight, and those who work. The three orders were said to be mutually beneficial; the broad division of labor was necessary for the benefit of the whole. Albert appears to have presupposed some such picture of the distribution of various social roles to the different orders when he referred to the practice of the poor being forbidden from carrying arms in some cities. This reflected the traditional sentiment that the order of those who work, the peasants, were not the same as those who fight, the nobles. In general, his use of the principle “what touches all is approved by all” functions here more as a justification of a varied set of duties than as a democratic slogan. He used it here to mean that the groups which are most rightly concerned with an issue should be consulted on that issue. The content of who should be concerned with what in Albert’s scheme is wholly traditional. Yet Albert’s assumption is that the oligarchs and the people are not at odds here. They are governed in common by the ethical principle of “what touches all is approved by all.” Albert can practice a political science based on such principles since he assumed that the different orders of society were not at odds. Both can agree that such a principle is in keeping with the requirements of distributive justice. If Albert thought that the rich and the poor were opposed than he would have conceived of the principle as the ideological justification of the trickery of the oligarchical party rather than an ethical principle which embodied the common good. Albert’s commitment to the possibility of a harmonious social order, in other words,

meant that it was possible for him to take seriously a political science of principles which were not ideological but ethical.

A science of practical reasoning?

In the discussion above we have seen how Albert reinterpreted Aristotle's *Politics* in light of Albert's views about the appropriate methodology for an ethical science. We have seen how this entailed a rejection of explanations based on instinct. It is difficult to say from these sources exactly how Albert thought of instinct, though it is clear that acting out of instinct in his mind is opposed to voluntary and thoughtful action. A consideration of Aquinas's views on practical reasoning show a similar rejection of instinct as appropriate for human practical reasoning. If in Albert's work there was the hint of instinct as passion, Aquinas articulated a view of instinct as algorithm. While Aquinas raised the issue in connection with practical reasoning itself, that is, from the agent's point of view, and Albert from the point of view of the analyst or scientist, it is clear that neither wishes for humans to be reduced to purely natural phenomena.

As we have seen from the discussion of the division of arts, it was traditional to think of politics as a kind of practical knowledge. Thus when Albert and Aquinas read in book vi of the *Ethics* that Aristotle equated politics with the intellectual virtue of practical reasoning which they called *prudentia*, prudence, it would have been a completely familiar idea. In the foregoing discussion the conception of politics as practical knowledge has been opposed to a conception of political knowledge as theoretical knowledge, and so it has been assumed that practical knowledge is opposed to science. This strictly speaking would have been true on their account, since Aristotle's *Posterior*

Analytics required that scientific propositions be universal, which was impossible for practical reasoning about precise, unique, situations.

While this is the case, there are certain features of the scholastic account of practical reasoning that make it more scientific in both our sense and their sense of the word, that is, at once more suitable to generalization and more inductive. Aquinas's prudence has been characterized alternately as proto-scientific and as resistant to scientific reductionism. On the one hand, it has been argued that the shift in emphasis from the man of practical wisdom to the application of the principles of natural law was a kind of rationalization, which amounted to reducing ethics to a science. In fact, it has been claimed that in the thirteenth century "ethical principles and the subsequent practical syllogisms functioned as rigidly as the laws of motion."¹⁰² On the other hand, those authors who focus on Aquinas's prudence, on the application of the principles to circumstances without considering the principles themselves, argue that Aquinas's moral reasoning was not scientific at all and that his method of deliberation or practical reasoning is not reducible to some instrumental model of reasoning. They are concerned to prove that there is no determinate "solution" to the process of deliberation in these authors and that, even given some end, there is no way to predict the means. They wish to prove that the practical thinking of Aristotle and Aquinas is not similar to the economic models of rational choice and instrumental reasoning.¹⁰³

¹⁰² Celano, "The End of Practical Wisdom," p. 242.

¹⁰³ The commentators claim that there is not a determinate process because Aristotle and Aquinas demand reflection about incommensurable goods, which cannot be ranked on any common metric. David Wiggins has argued that Aristotle's account of deliberation and prudence is not concerned with rule-case reasoning and that it is not exclusively, or even largely, concerned with means-ends reasoning, but with reasoning about the precise specification or identification of goods. David Wiggins, "Deliberation and Practical Reason" in *Essays on Aristotle's Ethics*, ed. Amélie Rorty (Berkeley, 1980), pp. 221-240. Scott MacDonald

Their prudence was not identical to Aristotle's *phronesis*. For Albert and Aquinas, the essence of prudence by the 1250s was the application of the general principles of natural law to particular circumstances.¹⁰⁴ Aristotle himself denied that there were such principles in ethics and politics, arguing that the standard in ethics was the practical judgment of the man of practical wisdom, who was usually an experienced and older citizen of a polis.¹⁰⁵

Aquinas applied the same understanding of prudence as the application of general principles to particular circumstances in political thinking. There are several sources of general principles for political reflection. There are the laws and constitutions of other polities from the past and the present,¹⁰⁶ the law of nature (*ius naturae*) and the law of peoples (*ius gentium*).¹⁰⁷ The law of nature is not too useful for political life, since it is the law shared among all animals, though it does provide some relevant principles, such as that we should tend to the education of our children. The law of peoples is the set of laws shared by all rational beings, and it is a stock of important general principles, such

has applied this to Aquinas in his "Ultimate Ends in Practical Reasoning: Aquinas's Aristotelian Moral Psychology and Anscombe's Fallacy," *The Philosophical Review* 100 (1991), pp. 31-66. They argue that their respective authors think that practical reasoning is as much about the specification of a good as about the best means to some end. So, part of prudence and practical reasoning is thinking about what the best instance of a good is, but there is not an instrumental relationship between the instance and the good, and the basis of comparison may not be measurable.

¹⁰⁴ Aquinas, *Summa Theologica*, IIa IIae q. 49 a. 5. For an emphasis on taking circumstances into account, see Ia IIae q. 14 a. 3. For more on his view of prudence as application of principles, see IIa IIae q. 49 a. 2 ad 1 and IIa IIae q. 47 a. 3. The chief work of prudence is the application of these principles to singulars, which is why even if one forgot the principles, or some of them, one would not become completely imprudent, IIa IIae q. 47 a. 16 ad 3.

¹⁰⁵ For this contrast, see Celano, "The End of Practical Wisdom."

¹⁰⁶ Thomas Aquinas, *Commentary on Aristotle's Nicomachean Ethics*, trans. C.I. Litzinger, O.P. (Notre Dame, 1993) (hereafter cited as CNE), §. 2178.

¹⁰⁷ Aquinas, CNE, §§. 1018-19.

as that diplomats ought to be protected when they are on missions abroad. Political prudence, as a capacity of judging particulars,¹⁰⁸ specifies the particular forms of the law, such as the precise punishments or prices of commodities, both of which vary according to Aquinas.¹⁰⁹ These would be instances of legislative prudence, which would be open to the rulers rather than the subjects.¹¹⁰

Both characterizations of Albert and Aquinas's practical reasoning as either scientific or anti-scientific are overstated. Their concept of practical reasoning is far from being a rigorous science, and both Albert and Aquinas took pains to preserve the importance of its flexibility, despite allowing for general principles. At the same time, there is a greater systematicity to practical reasoning in the thirteenth century than the philosophical critics of decision theory suggest. These commentators share a common concern with Albert and Aquinas not to reduce human decision-making to a routine process. Albert and Aquinas were concerned about this because such a routine process would threaten the operation of free choice. The motivation of the contemporary literature is not as clear, though it is apparent that they fear a standardization or "rationalization" of some kind.

While the application of these principles to particular situations is flexible and dependent on the individual, once they have been applied there are general criteria for thinking about the best means to the ends provided by them. This is most clearly stated in Aquinas's discussion of deliberation in his commentary to the *Nicomachean Ethics*,

¹⁰⁸ Aquinas, CNE, §§. 259, 1152. On prudence in general and particulars, 1194; On civil prudence and particulars, 1197-8..

¹⁰⁹ Aquinas, CNE, §. 1030, ad 1134b35-a5.

¹¹⁰ Aquinas, *Summa Theologica*, IIa IIae q. 47 a. 12 s.c.

where it is apparent that he is thinking about means-ends reasoning.¹¹¹ Aquinas noted that there is essentially a two-step process to deliberation, after having chosen an end by some other means. The first step is to inquire by which movement or action or *instruments* can one move or act towards the end, and he names a ship or horse as an example. The second step is to inquire which means is easiest and best (*et facilius et melius*).¹¹² Aquinas is absolutely clear in his commentary that he is thinking of instruments, but this is not as clear in Grosseteste's translation of Aristotle, and it may not be in the original.¹¹³ In his discussion of *electio*, choice, in his commentary on the *Ethics*, Aquinas again seems to be thinking of means-ends, or instrumental thinking, as medicine to health (*medicinalia to sanitas*).¹¹⁴ The criteria by which one evaluates which means are chosen is relevant to the question of the scientific status of such reasoning, since the existence of general criteria would make the resulting behavior more interpretable and explicable if not more predictable due to the variety of circumstances.

¹¹¹ Commentary to *Nicomachean Ethics*, 3.3, 1112b15-20.

¹¹² Aquinas, *Sententia Ethic.*, lib. 3 l. 8 n. 3: Deinde cum dicit: sed ponentes finem etc., ostendit de quibus et quomodo sit inquisitio consilii. Circa quod tria ponit. Quorum primum est quod supposito aliquo fine, prima intentio consiliantium est qualiter, idest quo motu vel actione possit perveniri ad illum finem; et per quae instrumenta oporteat moveri vel agere ad finem, puta per equum vel navem. Secunda autem intentio est quando ad finem aliquem per plura perveniri potest sive instrumenta sive actiones, per quid eorum et facilius et melius perveniatur. Et hoc pertinet ad iudicium in quo quandoque aliqui deficiunt bene se habentes in inventione viarum ad finem. Tertia autem intentio est, si contingat quod per unum solum instrumentum vel motum vel per unum optime perveniatur ad finem, ut procuretur qualiter per hoc ad finem perveniatur. Ad quod requiritur constantia et sollicitudo. Et si illud per quod est deveniendum ad finem non habeatur in promptu, oportet inquirere ulterius per quid haberi possit et similiter de illo, quousque perveniatur ad causam quae occurrit prima in operando, quae est ultima in inventione consilii.

¹¹³ Sed ponentes finem aliquem, qualiter et per quae erit intendunt. Et si per plura quidem videatur fieri, per quod facillime et optime intendunt.

¹¹⁴ Thomas Aquinas, *In decem libros Ethicorum Aristotelis ad Nicomachum expositio*, ed. Raymond M. Spiazzi (Turin, Italy, 1964), p. 134: sed electio est solum eorum quae sunt ad finem, non autem ipsius finis, quia finis praesupponitur ut iam praedeterminatus, ea vero quae sunt ad finem inquiruntur ut a nobis disponenda in finem. Sicut sanitatem, quae est finis medicationis, volumus principaliter, sed eligimus medicinalia per quae sanemur.

Though the general concern of the thirteenth century authors was for free choice and not individuality, their emphasis on the variability stemming from free choice shows that they were at least in some measure concerned with individuality. This is evident in a passage of the *Secunda Secundae* of Aquinas's *Summa*. Aquinas, considering the question of whether prudence was natural or not, concluded following Aristotle that prudence is "in us, not by nature, but by teaching and experience." One of the reasons for this is that the capacity for decision-making in humans is not natural like that of the animals.

Even in dumb animals there are fixed ways (*viae determinatae*) of obtaining an end, wherefore we observe that all the animals of a same species act in like manner. But this is impossible in man, on account of his reason, which takes cognizance of universals, and consequently extends to an infinity of singulars.¹¹⁵

So, all rabbits will sneak into the garden in the same way, while humans are more unpredictable. This is clear for instance in Albert's *De Animalibus*, where following Aristotle, he spoke of the behavior of animals that is analogous to prudence. The animals of the same species are all said to be prudent in the same way.

Albert and Aquinas opposed human decision-making to that of animals, while contemporary critics oppose it to that of a mechanism or a computer. Experience emerges here as uniquely human way of thinking about the world and decision-making. This is clearly stated in Albert's *De Animalibus*. He considered the possibility that animals have experiential knowledge since some animals know that certain foods have medicinal properties.¹¹⁶ So, for example, according to Albert the leopard "sometimes eats the

¹¹⁵ Aquinas, *Summa Theologica*, IIa IIae q. 47 a. 15 ad 3.

¹¹⁶ Albertus Magnus, *On animals*, VIII.6.1, p. 767.

poisonous plant which is called the *fridalyon* in Greek but the ‘leopard strangler’ in Latin. When the leopard begins to choke and suffocate it seeks out human excrement. By eating this it is freed from the poison in the plant.”¹¹⁷ It thus appears that animals learn what to do from experience. But animals do not have the power of generalization and so do not have experiential knowledge in this sense. Rather they only know whether a certain plant is good for them or not. It is the lack of the power of thinking in general terms that marks animals’ practical thinking in general. Animals judgments are of the suitability of a given action or thing for themselves, while humans judgments stem from “the rules and universal principles of law.”

Thus animals and humans according to Albert and Aquinas interact with the world in entirely different ways. Experience is required for humans because they are normative beings and so are faced with the challenge of applying general principles to particular situations. Experiential knowledge is required for doing so.

It is the lack of the power of generalization according to Albert that also entails that animals cannot participate in politics. They cannot conceive of a greater whole and while they act in situations in a way that may benefit the whole and may even be coordinated, it is not done for the sake of the whole. “Neither do they perceive of community as ‘community’ grasped in and of itself rather as a certain similarity grasped in individual cases and they thus safeguard and defend it. In this way they imitate a sort of society. Humans alone, possessing an intellect, safeguard communities in a

¹¹⁷ Albertus Magnus, *On animals*, VIII.2.2, p. 685.

commonwealth, resembling a community in no one case, but as a condition suitable to the whole and not this or that part.”¹¹⁸

Experience according to Aquinas has very different connotations than those we are accustomed to. For us, experience would consist of recognizably similar situations and actions. For Aquinas, however, experience is what helps one judge that particular situations are similar to one another, that is, that they fall under the same principle. Again, this is the experience of applying principles, and it is the application of those principles, the decision that a particular situation falls under a general rule that is the essence of the decision-making. Once the decision has been made, then the course of action is clear.

Experience played an important role in Aquinas’s work, one that surpasses its place in Aristotle’s theory of practical reasoning. He emphasized experience more than Aristotle because he was following Cicero, Macrobius, and Albert in maintaining that experience and memory were essential components of prudence. According to Aristotle, the man of experience may know what to do in a particular situation due to his experience, but he will know neither why he is doing it, nor what the underlying causes are that make his action effective. He will definitely be able to make some low level generalizations, but he will not see the whole picture. In politics, the man of experience will not be able to teach the skill of politics to another, since he does not understand its principles, but only has the ability to do it himself.¹¹⁹ Experience alone may also mean that the politician will not know what to do in a novel situation, though it is clear that

¹¹⁸ Albertus Magnus, *On animals*, VIII.6.2, p. 771.

¹¹⁹ Aquinas, CNE, §. 2170.

someone who was really a political scientist would know how to do this, just as a doctor is capable of devising new remedies.

Experience has two functions in Aquinas's theory of prudence. First, experience helps one to describe secondary rules of prudence to supplement the universal practical principles discussed above.¹²⁰ Second, experience contributes to a kind of practical knowledge which can judge particular cases quickly. "Prudence does not reside in the external senses whereby we know sensible objects, but in the interior sense, which is perfected by memory and experience so as to judge promptly of particular cases."¹²¹ But he hastened to add that this is not the primary location of prudence, which mostly resides, or relies on, reason. There is a tension here between prudence as a conscious thoughtful activity, that is, prudence as an intellectual virtue, and prudence as a moral virtue, or practical skill, which is acquired through experience and habit.

Aquinas briefly referred to a process of comparison (*collatio*) whereby one compares one's past experiences with the future: "to obtain knowledge of the future from knowledge of the present or past, which pertains to prudence, belongs properly to the reason, because this is done by a process of comparison."¹²² Aquinas elaborated elsewhere on what must be the same process:

Prudence regards contingent matters of action, as stated above. Now in such like matters a man can be directed, not by those things that are simply and necessarily true, but by those which occur for the most part (*in pluribus*): because principles must be proportionate to their conclusions, and "like must be concluded from like" (*Ethic.* vi [*Anal. Post.* I. 32]). But we need experience to discover what is true for the most part: wherefore the Philosopher says (*Ethic.* II, 1) that "intellectual

¹²⁰ Aquinas, *Summa Theologica*, IIa IIae q. 47 a. 15.

¹²¹ Aquinas, *Summa Theologica*, IIa IIae q. 47 a. 3.

¹²² Aquinas, *Summa Theologica*, IIa IIae q. 47 a. 1.

virtue is engendered and fostered by experience and time.” Now experience is the result of many memories as stated in *Metaph.* 1, 1, and therefore prudence requires the memory of many things. Hence memory is fittingly accounted a part of prudence.¹²³

There is much that is important here for our purposes. The method Aquinas described opens the door to an observational science of politics and human action, by suggesting that practical reasoning must be based on rules derived from experience which are true for the most part. These rules would not satisfy the strict requirements of universality demanded by the *Posterior Analytics*, but would be sufficiently scientific from the perspective of the modern social sciences which are accustomed to including probabilistic statements in their domain. It is unclear however how these empirical generalizations fit into the process of deliberation and prudential thinking described elsewhere by Aquinas. In fact it is not clear whether this process of reasoning is a process of reasoning at all. Aquinas’s wording suggests that the process is a conscious and articulate one since he speaks of principles and conclusions (*principia, conclusiones*), of concluding from like cases, and of considering (*considerare*) what is for the most part the case. But on the other hand, Aquinas spoke of the individual’s being directed by what happens for the most part in the passive (*dirigi*), rather than of the free choice of the individual. This last observation suggests that experience acts upon the individual without conscious reflection, a position that there is some support for in the text, both in the

¹²³ Aquinas, *Summa Theologica*, IIa IIae q. 49 a. 1: Respondeo dicendum quod prudentia est circa contingentia operabilia, sicut dictum est. In his autem non potest homo dirigi per ea quae sunt simpliciter et ex necessitate vera, sed ex his quae ut in pluribus accidunt, oportet enim principia conclusionibus esse proportionata, et ex talibus talia concludere, ut dicitur in VI Ethic. Quid autem in pluribus sit verum oportet per experimentum considerare, unde et in II Ethic. philosophus dicit quod virtus intellectualis habet generationem et augmentum ex experimento et tempore. Experimentum autem est ex pluribus memoriis; ut patet in I Metaphys. Unde consequens est quod ad prudentiam requiritur plurium memoriam habere. Unde convenienter memoria ponitur pars prudentiae. Translation emended.

passage cited above about the interior sense becoming more habituated by experience and memory and in a distinction that he drew between experience and memory.

Commenting on Aristotle's position that prudence cannot be forgotten, Aquinas noted that "the experience required by prudence results not from memory alone, but also from the practice of commanding aright."¹²⁴ Here it is clear that experience contributes to a practical or skill sort of knowledge in part from the conscious memory of events and in part from a practical--if not unreflective—experience of trial and error in making choices. For by "command" Aquinas was referring to the last stage of the process, that of practical reasoning or decision making, in which one commands oneself to do what has been approved of by reason. If it is true that Aquinas defined experience as unreflective practice, then the experience he spoke of shared very little either with the empiricism of a Francis Bacon or that of that found in our day. However, if he indeed thought of the process of practical reasoning as including an inductive process of generalization of experience then one can speak more correctly of an empiricism in his political science. Since the evidence on balance suggests that Aquinas thought of decision-making as an individual matter, the experience he refers to most probably has more to do with either personal decision-making qualities or personal judgments about the best way to achieve one's chosen ends than the data of objective or intersubjective general laws.

An actual instance in which Aquinas was involved in giving advice shows how sensitive he was to the notion that practical matters are about particular cases and cannot be generalized. The advice appears in a letter answering the questions of the Duchess of Brabant about the treatment of the Jews in her kingdom. Aquinas set out some general

¹²⁴ Aquinas, *Summa Theologica*, IIa IIae q. 47 a. 16.

principles for the treatment of usurers, but was reluctant to suggest a particular course of action. The particular policies to be adopted depend on the customary treatment of the Jews in your kingdom, he emphasized. So, he wrote, speaking abstractly (*absolute*) rulers would be allowed “to treat their goods [i.e. those of the Jews] as their own property” but “it would seem more correct to forego what is permitted by the law, and to abstain from forced loans which it has not been the custom to exact in the past; for what is unaccustomed always rankles more deeply in men’s minds.”¹²⁵

The flexibility of Aquinas’s reasoning should be obvious here. There are three general principles: (1) We must bear ourselves honestly lest the name of Christ be blasphemed, (2) Jews, in consequence of their sin, are or were destined to perpetual slavery and so rulers are entitled to their property, (3) accustomed hardships rankle less. The Duchess is advised to do the same as her predecessors, but if the Jews are treated terribly in Brabant and wonderfully in Naples, this would be consistent with the three principles. Precedent in Naples does not establish precedent in Brabant. This is not a strictly legalistic way of thinking, but rather a system of general maxims and a maximum of application of those maxims. Aquinas named only one fixed principle, namely, that the Jews must be allowed to keep such property as necessary to sustain life. This example of practical political reasoning shows how distant Aquinas’s conception of political reflection is from a generalized science of natural law principles.

In turning to this example we have briefly left the province of the university. The story being told here, though, is one of learned politics, to imitate the historians’

¹²⁵ Thomas Aquinas, *Selected political writings*, ed. A.P. d’Entrèves, trans. J.G. Dawson (Oxford, 1959), p. 85.

distinction between learned and practical medicine. In the next chapter, we will take a detour from the story of learned politics to discuss the thinking of the great Florentine political theorists, but before doing so, I will sketch the fate of learned medicine from the end of the thirteenth century until the story is resumed in the sixteenth century in chapter three.

While Albert, Aquinas, and Peter assumed that politics could be a university discipline, it did not achieve the same centrality to the university curriculum as other subjects, including ethics. The surviving commentaries on the *Politics*, including their own, were written mostly outside of the university setting, albeit by men associated with the universities. Indeed, there is no evidence that the *Politics* was lectured on in Paris, and it was an optional subject at Oxford. The *Politics* was lectured on more regularly in the fourteenth century and thereafter, though often *extraordinarie*, that is, outside of the regular curriculum, on Sundays and feast days.¹²⁶

Commentaries on the politics continued to appear from this period through to the seventeenth century. The number of unique commentaries is not large given the time period and the number of universities in question. However, studies of manuscript distribution suggest that the reason for this relative paucity may have been that some of these commentaries, principally the question commentaries of Peter of Auvergne and Walter Burley, became the standard works. These commentaries were not printed in the early modern period, however, suggesting that those that *were* printed, the one attributed to Jean Buridan and that of Thomas Aquinas, became the standard works in this tradition. Though the political science of the seventeenth century differs from this tradition and

¹²⁶ Flüeler, *Politica im späten Mittelalter*, I, pp. 33-34.

makes little mention of it, the occasional mention of these works suggest that they were known to later authors.¹²⁷

In the fifteenth century there were still commentaries being written in the general manner of Albert and Aquinas. The commentary of Donato Acciaiuoli, discussed in the chapter on Florentine political thought that follows, is one good example. But the commentaries of the next century, such as those of Vettori, Giphanius, and Lambin, are almost wholly philological and unsystematic.¹²⁸ They could not have served as a basis for the science and may have suggested to the proponents of political science in the seventeenth century that the basis of science was elsewhere.

Science in the thirteenth century continued to mean certain knowledge of propositions. However, there were now intimations of an interest in political phenomena and even in the possibility of generalizing about such phenomena. This is evident in Aquinas's view of experience as including knowledge of "for the most part" generalizations about human action as well as his presentation of prudence as instrumental reasoning of a kind.

The story told over the next few chapters emphasizes the distancing of the methods of theory from practice as that theory or teaching (the Latin word *doctrina* signifies both) becomes more and more scientific. The qualities and the mental activities of the scholar, philosopher, historian, and astrologer are all very different from the qualities and activities of the king, politician, or citizen. While this distinction was known in the Arabic speaking world, it was formalized here for the first time in the Latin West

¹²⁷ Aquinas's commentary on the politics is mentioned in Conring's *Dissertatio de ratione status*.

¹²⁸ For the parallel story of how the *Ethics* commentaries became philological, see Lines, *Aristotle's Ethics in the Renaissance*.

as the distinction between *utens* and *docens*. The authors in this study after the thirteenth century who support a science of politics all refer to the distinction between *utens* and *docens*. The worry of some modern authors writing in the post-Marxist tradition that this disjunction between theory and practice leads to a conservative and complacent politics was not the concern of these authors, though they were worried about whether one could be virtuous in theory and thus be said to have practical political knowledge without ever having put it into practice. In general it can be concluded that while the authors of the thirteenth century were interested in the relationship between theory and practice, they saw it as no obstacle to the advancement of a theoretical science of politics.

Besides calling attention to the break between theory and practice in this period, it is worth emphasizing the importance of Albert's rejection of the method of the best regime. Albert's rejection represents a departure from the tenets of Aristotelian political science and so calls into question the periodization of the history of political science into a period of a political science of the best regime before Machiavelli and a realistic political science after Machiavelli. In keeping with this interest in particular regime types rather than a single best regime, Albert used ethical principles and values in an explanatory fashion. In doing so, he anticipated another of the features that is supposed to be distinctive of Machiavellian political science. While Albert was aware of the implication of using ethical principles in an explanatory fashion for preserving free choice, he did not see this leading to a "value free" political science. Like most authors in the tradition of Aristotelian political science such an understanding of ethical principles as at once explanatory and normative coupled with an openness to various regime types lead to a limited relativism in the sense that the good regime depended on the

circumstances, but this is not a true relativism in that there are not truly different conceptions of the good in operation, just the application of one correct conception of the good to different circumstances and other political institutions and behavior which result from incorrect understandings of the good. Thus by distinguishing political science from natural philosophy and emphasizing human choices and goals in response to circumstances and experience, Albert developed a science of politics that was explanatory and ethical but which raised many of the issues of perennial interest to the human sciences. In the next chapter, we will see how many of these themes played themselves out in the Florentine context.

Chapter 2. Renaissance Realism Revisited

It has often been argued that a new style of political thinking arose in the Italian Renaissance and that it is with the rise of that new style that political science was born. I will argue in this chapter that the new style of political thinking was not in fact scientific, in neither our sense of the term nor their own. In addition, I will argue that debates over the nature of political thinking in Florence continued to exhibit signs of the virtue theory of political knowledge, and as a result reflected contemporary debates on virtue and nobility more generally. This last claim implies further that the debates about the nature of political knowledge in Florence were tied to issues of social class and stratification.

In this chapter on the Florentines, we will see that there is also a turn to experience, but it cannot be characterized as a Machiavellian moment or a new kind of realism, since it comes from the scholastics. In the last chapter it was shown how the scholastics considered experience to be a distinctively human process or feature, distinguished from science. It was held to be the feature which distinguishes human thinking from animal instinct. Experience was also opposed to the method of the best regime. It is also not scientific in any way, since it is opposed to the reduction of human actions to laws. Thus, though the Florentines heavily emphasized experience, they did not conceive of experience as providing the data for an objective inductive political science. Only when experience was transformed into a true empiricism, would it become scientific, cease being opposed to animal instinct, and stop being identified as uniquely human. For the moment, the Florentines continued to think of experience as contributing to the prudence of the individual. Moreover, Machiavelli and Guicciardini are in fact less empirical than Albert, since they maintain that there is an absolutely best kind of

government, the republican regime, while Albert insisted that the best regime was relative to the particular circumstances of the regime. Albert is then more empirical in the sense of valuing particular circumstances in the physical and social world above abstract normative concerns.

Various historians have pointed to the emergence of a new style of politics in Italy at various points from the 1380s to the 1520s. So Alfred von Martin said that a new style of politics was reflected in the writings of the Coluccio Salutati in the 1380s;¹²⁹ Gene Brucker wrote that there was a new style of politics in the *consulte e pratiche*, the records of the meetings of Florentine consultative councils, after 1411; Alison Brown has argued that a new style of politics reflecting the rise of the Medici and the political application of Platonism was reflected in the writings of Bartolomeo Scala in the 1480s; it is of course traditional to find a new style of politics in the writings of Machiavelli, and finally some scholars, such as Maurizio Viroli, have claimed that the new style of politics was announced in Francesco Guicciardini's *Dialogue on the Government of Florence*. The most convincing claim is that this new style was born in the late fourteenth century in the chancellorship of Coluccio Salutati, with its emphasis on experience and history. It is fair to say that it is a new style of politics that is at issue, and not simply a new style of political theory, because the style was reflected not only in political theory but in political argument, as in the *consulte e pratiche*.

¹²⁹ Alfred von Martin, "Der Traktat 'Vom Tyrannen'," in *Coluccio Salutati's Traktat "Vom Tyrannen,"* ed. Alfred v. Martin (Berlin, 1913), pp. 25-74, p. 38. Cf. Baron, *The crisis of the early Italian Renaissance* (2 vols., Princeton, 1955), I, p. 125: "The shrewd realism, stripped of all illusions, with which Salutati sets forth the conditions of ancient Rome, has been considered a great pioneering achievement, and it would indeed be impossible to name any forerunner (including Petrarch) or contemporary parallel of equal achievement."

Alfred Von Martin suggested that a more detailed understanding and appreciation of the values expressed in the Roman historians lead to Salutati's new attitude towards politics.¹³⁰ This is an unlikely explanation. Many of the works of the Roman historians were available throughout the medieval period, and we know for example that even such an "unrealistic" author as Thomas Aquinas studied such works at the university of Naples.¹³¹ There is a sense in which an engagement with Roman values may have inspired Salutati's realism in part, but not through the reading of the historians alone, and only if realism is understood in the *realpolitik* sense. Salutati's notarial education in Bologna focused on Roman law in its second year, and there are echoes of this education throughout his letters.¹³² For example in a discussion in one of his letters of the necessity of defending Florence with violence, one can observe both his realistic attitude towards political necessities and the imprint of his training in Roman law.

Gene Brucker offered two explanations for the advent of a new style of politics. First he finds the new emphasis on experience in the *consulte* and *pratiche* to be more or less consistent with Hans Baron's crisis thesis. The problem with this explanation is that the records of the *consulte* and *pratiche* predate the engagement with the Visconti which was supposed to have precipitated the crisis. Brucker also offers a functionalist explanation for the continued appearance of arguments based on experience and history in the *consulte e pratiche*. He claimed that the continued existence of such arguments implied that they must have been effective. But how do we know that such arguments

¹³⁰ von Martin, "Der Traktat 'Vom Tyrannen'," , p. 38.

¹³¹ Jean-Pierre Torrell, *Saint Thomas Aquinas* (2 vols., Washington, DC, 1996-2003), I.

¹³² Ronald G. Witt, *Hercules at the crossroads: the life, works, and thought of Coluccio Salutati* (Durham, NC, 1983), p. 21.

were effective? And compared to what other kind of argument? If such arguments based on experience and history were new, what kind of arguments were used in the *consulte e pratiche* beforehand? Finally, the main difficulty with this explanation is that it does not explain why such arguments would have suddenly proven effective and what experience meant to the Florentines.

It has been argued by Alison Brown that the new realism was part of a political Platonism that was used to justify the Medici and was opposed to an anti-political Platonism or utopianism of the early humanists. There are several problems with Alison Brown's explanation. The first is that much of what appears in Scala has already appeared in the *consulte e pratiche*. The other difficulty is that Brown's characterization of the Platonism of the early humanists (from Petrarch to Scala) as utopian is anachronistic and does not account for the fact of Salutati's realism. Certainly it is a mistake to assume that the Petrarchan praise of the solitary life is the same as political utopianism or the same as an Aristotelian deductive politics.

Other commentators have given ad hoc or tautological reasons—like the growth of a “realistic spirit” in Florence visible in the visual arts as well as in politics. This canard originated with Burckhardt and has been repeated widely in surveys, but it trades in ambiguity. It is not at all clear what realism in art is nor how it is similar to a realism in politics. If realism in politics is understood in the *realpolitik* sense of accepting departures from conventional morality for the common good, then what does this possibly have to do with realism in art? And if it is replied that what is common to the two is the portraiture of man as he is—warts and all—then we should only see the

corollary of realism in politics in the art of the nineteenth century, in the paintings of the Parisian bohemians.

It has also been argued that the new style of politics is a reflection of a new scientific spirit. Here it is argued that the new politics or political thinking was effected by science and not that the scientific mindset was part of a general movement towards value relativism. In other words, according to this argument, the causal direction is reversed. This is an argument that is made by Leon Olschki with respect to Machiavelli; he claims that Machiavelli is part of a new movement in Florence with Leonardo and others. The problem with this explanation is that one would expect the emphasis on experience to come from the medical literature, which is so closely related to political science later, but the Galenism of Nicolò Leoniceno (1428-1524), a professor of medicine and moral philosophy at the University of Ferrara, was introduced around 1508, which is too late to explain this change. While the importance of experience in medicine was highlighted by Tommaso del Garbo (d. 1370), his work was only printed for the first time in Venice in 1506.¹³³ And practical medicine became a more important part of the medical curriculum only over the course of the sixteenth century in Italy. By the end of the century, the professors of practical medicine were being paid more than the professors of theoretical medicine.¹³⁴ While there was an increasing emphasis on experience in medicine, it was not absorbed into intellectual debate until after the discussions about political knowledge which feature in this chapter.

¹³³ Tomaso del Garbo, *Summa medicinalis* (Venice, 1506).

¹³⁴ Paul F. Grendler, *The Universities of the Italian Renaissance* (Baltimore, 2002), p. 352.

The attitude or point of view which is most often said to arise is realism. While realism is understood in several senses, its most basic sense is the attitude which accompanies or enables *realpolitik*. Political realism in its various senses has been identified with the beginnings of political science, but this is not because it resembled the political science of our day or the natural science of their own day. Rather, those who claim that the beginnings of political science were located in the Renaissance did so because they understood Renaissance thinkers—and Machiavelli in particular—to espouse a “relative standard of value.”¹³⁵

Circumstances and experience

The denial that there could be regular rules of politics was a commonplace in Florentine politics at least from the time of Bartolomeo Scala. Bartolomeo Scala (1430-1497) was a Chancellor of Florence and a leading humanist. Scala rehearsed the traditional Aristotelian argument for equity in legal matters. It is impossible to make a law which foresees all circumstances, so when it becomes clear to conscience that a law

¹³⁵ Though some interpreters have made Machiavelli out to be a scientist, Machiavelli himself never said so, and the substance of his work suggests otherwise. Controversy over the issue has arisen because Machiavelli often referred to necessity, because he relied on historical examples rather than on deductive argument or utopian idealization, because he put forth general rules and maxims, because he supposedly severed politics from morality, and finally, because he suggested that the purpose of his work was to investigate the nature of politics. Machiavelli emphasized practical knowledge, flexible adaptation to the situation at hand, imitation of historical examples. While Machiavelli may have provided much of the material for a science of political prudence, he was extremely skeptical that the use of such knowledge was possible given the inflexibility of human nature. That he is a scientist: Francesco de Sanctis, *History of Italian Literature*, trans. J. Redfern (2 vols., Oxford), II, chap. 15; George H. Sabine, *A history of political theory* (London, 1937); Augustin Renaudet, *Machiavel, Etude d'histoire des doctrines politiques* (Paris, 1942); Ernst Cassirer, “The myth of the state,” *Fortune*, (1944), p. 167 and *The myth of the State* (New Haven, 1946), ch. 12; Leonardo Olschki, *Machiavelli: The Scientist* (Berkeley, 1945). That he is not: Herbert Butterfield, *The statecraft of Machiavelli* (London, 1940 and 1955); Habermas, *Theory and Practice*, p. 60; Harvey C. Mansfield, Jr., “Machiavelli’s Political Science,” *American Political Science Review* 75 (1981), pp. 293-305, reprinted in his *Machiavelli’s Virtue* (Chicago, 1996), pp. 258-280; Maurizio Viroli, *Machiavelli* (Oxford, 1998). For a review of Machiavelli interpretations more generally, see Isaiah Berlin, “The originality of Machiavelli,” in *Studies on Machiavelli*, ed., Myron P. Gilmore (Florence, 1972), pp. 147-206, and for his possible sources, Allan H. Gilbert, *Machiavelli’s Prince and Its Forerunners* (Durham, NC, 1938).

is inapplicable, an exception should be made. Scala thought that there would be a natural revulsion when a law should not be applied, when a punishment should not be rendered, as when Brutus had his sons killed for threatening liberty. Scala argued that this divergence between the law and what should be decided cropped up often (*saepe*). For this reason, Scala concluded, “how much better we could live by following the judgment of a good man and good judge who is guided by nature than we can under the constraint men have assigned to themselves, which they must needs obey willy-nilly.” It has been suggested that this argument was made to justify Medici rule, but in fact, it is Bernardo who spoke of Cosimo and said that Cosimo was a great defender of the rule of law, which he reported Cosimo used to call the “citadel of justice.”¹³⁶ Also, Cosimo was a great patron of Platonist philosophy, which upheld Bernardo’s view of the necessity of laws, including both eternal, unchanging principles and more flexible civil laws.

He wrote

For we see many things happening every day, so many chance events affecting human affairs and so many different situations arising every day that need to be dealt with by freer powers and more discretionary sentences.

The politics of a pragmatic—or what I have been calling a particularist view—have been traced by Brown and even appear in a letter to the Captain and Podestà!

Given the nature of human affairs, one should not regard it as foreign to rulers of republics to annul the laws of cities and to institute new laws daily. Indeed there can be no such human wisdom which truly knows the perfection of things, or which can foresee everything, since varying time affects everything.¹³⁷

¹³⁶ Bartolomeo Scala, “Dialogue on laws and legal judgments,” in *Cambridge translations of Renaissance philosophical texts*, ed. Jill Kraye (Cambridge, 1997), pp. 174-193, p. 187.

¹³⁷ Scala to the Podestà and Captain, 8 Oct. 1465, Florence, Archivio di Stato, Missive, fo.33v. Cited in Brown, *Scala*, p. 335: Ut res sunt hominum non debet reputari alienum a rerum publicarum rectoribus si quotidie abrogantur instituta civitatum et quotidie novas instituuntur leges. Nulla enim humana sapientia

This letter may have been inspired by a letter of Cicero's to Atticus which has very similar wording. So, then it may be part of a self-conscious understanding of politics as pragmatism. Cicero is responding to Atticus's question of what he thinks should be done about Marc Antony. Cicero responds that he approves of Pansa's thinking on that, "We must adapt our plans to circumstances, which you see change every hour."¹³⁸ It is clear from Cicero's letter that he thinks of such thinking as a part of politics, since in the same breath he replies to Atticus, who had apparently cited Epicurus at him not to practice politics (*μὴ πολιτεύεσθαι*). But Cicero taunts back that he would have thought that Brutus's severe countenance—surely, we are to think, a reminder of one's political obligations—would have cured him of any Epicurean leanings.

If Scala's position is a realism of a kind, it is not in the *realpolitik* sense of realism. The attention to the particular is not the same as a recognition of the necessity of evil for the welfare of the state. There is no talk of doing evil here, or even values at all. What is at issue is only the general versus the particular and the impossibility of human wisdom to foresee it all. In some sense this is realistic, because it takes general principles to be inapplicable ideals, but this again is not realistic in the same sense of value neutrality or acceptance of the use of wicked means.

The best known treatment of these issues is naturally that of Niccolò Machiavelli. The locus classicus for discussions of Renaissance realism is chapter fifteen of

tanta esse potest, quae et perfectionem rerum penitus cognoscat, aut quae praevidere cuncta possit, quae tempus omnia penitus commutans affert.

¹³⁸ M. Tullius Cicero, *Letters to Atticus* (ed. L. C. Purser) book 14, letter 20, section 4: consilia temporum sunt quae in horas commutari vides.

Machiavelli's *The Prince*.¹³⁹ In this chapter Machiavelli explained how he is different from previous authors in the treatment of the virtues and vices of rulers. Unlike these authors, Machiavelli intimates, his intention is to write something useful (*cosa utile*), which treats real princes rather than imagined republics and principalities. This statement suggests a methodological realism, and so we expect a lecture on empiricism and the observation of phenomena. What we get instead is Machiavelli's famous conclusion that "to maintain his state" (*mantenere lo stato*) a prince must learn how to act wickedly, as required, since it would be impossible for a prince to be entirely good, since he would "come to ruin among so many who are not good."¹⁴⁰

The second kind of realism, or empiricism, then comes in when Machiavelli stated that it is for this reason that the prince must not "let go of what is done" (*quello che si fa*) for "what should be done" (*quello che si dovrebbe fare*). Methodologically speaking, then, Machiavelli's realism comes with presenting examples of princes successful in the real world, among "so many who are not good," despite having to act badly at times. This is the "what is done" as opposed to the examples of the idealized princes of the mirror of princes literature.

The study of occasional wickedness is empirical because it is really the study of the means required for a given end, here, the maintenance of the prince's state. In the traditional theory of political prudence the identification of the means to an end was also an empirical problem, since there was no unique solution to the selection of the means.

¹³⁹ Niccolò Machiavelli, *The prince*, trans., Harvey C. Mansfield (Chicago, 1998).

¹⁴⁰ What is unclear, and this is a crucial question for Machiavelli, is whether this is not a successful strategy for rival princes, each trying to maintain his own state, or whether this is the case for any government pursuing safety and security.

There might be many means that would suffice for the end. As the Aristotelians put it, the means is a particular, which is why an empiric might be better at times at healing a particular person than a broadly educated doctor.

Machiavelli implied that if this were not true—if one held that wicked means were never necessary—then the nature of the ideal ruler could be set out deductively. There is a confusion here. It is not that the precise actions of the ruler in given circumstances could be set out deductively, since there would certainly be more than one way of acting that would be consistent with virtue in about all situations. Rather what could be set out deductively would be the virtues of an ideal ruler, based on some deductive criteria about the good man and rulership, as in Aristotle's *Ethics* and *Politics*. For Machiavelli the qualities of a good ruler, meaning one who can successfully maintain his rule, have become reduced to one quality, the ability to adapt oneself to the circumstances. As we shall see later there is a moral dimension to this quality, but more or less the interest has moved from the virtue—the capability—to the circumstances themselves. The scholastics also emphasized circumstances, but presupposing the fact that the ruler almost should be virtuous they can describe those virtues without regard to time and place. Machiavelli cannot do so—he cannot say what the ideal ruler is like because the ideal ruler will be different and require different virtues in different times and circumstances. This is what Meinecke no doubt meant by the relative standard of value in Machiavelli. The theme is well developed in Machiavelli—one should be generous in one situation but cruel in another. Machiavelli's method then is necessarily empirical because no abstract list of virtues can be drawn up—they require investigation of the particular circumstances. Machiavelli raised this issue in connection with the ideal ruler, but the

same might be said of the ideal constitution or best regime. There is no one best type, since it depends on the circumstances.

Circumstances were important to the scholastics as well, but did not imply Machiavelli's conclusions. There were virtues that the scholastics could list—and did list—but virtuous *actions* were a matter of circumstances that could not be enumerated. Machiavelli's insistence that there was only one virtue—of adapting oneself to the circumstances—entailed then not only an empiricism but the true end to a virtue theory of political knowledge, since the definitions of the virtues became so particularized. Here we see another moment in the end of the virtue theory of political knowledge. The question is whether this means that Machiavelli was a scientist. In Meinecke's sense it does and there is something to the empirical investigation of success. Once virtue has been defined relative to success its exact nature will be undetermined and so subject to empirical investigation unless one is a moralist and success is only defined as such if achieved through moral action.

Like the traditional exponents of prudence, as well as the more modern particularists, such as Guicciardini, Machiavelli thought that one must adapt one's practical thinking to the circumstances at hand.¹⁴¹ Such prudence would look very different from traditional prudence, since it would mean that a prince should sometimes act cautiously and with art, as in traditional prudence, but sometimes impetuously and with violence, which never had a place in traditional prudence.¹⁴² The ability to be

¹⁴¹ Machiavelli, *Prince*, chap. 25. Niccolò Machiavelli, *Discourses on Livy*, trans. Harvey C. Mansfield and Nathan Tarcov (Chicago, 1996), III.9.

¹⁴² In keeping with Jacob Burckhardt's stimulating characterization of Renaissance political theory as thinking of the state as a work of art, Jürgen Habermas argued that Machiavelli thinks of politics as a form of maker's knowledge, or *technē*. Habermas, *Theory and Practice*, pp. 59-60. So, according to Jürgen

flexible is the master definition of prudence in the *Prince*: “And so he needs to have a spirit disposed to change as the winds of fortune and variations of things command him, and as I said above, not depart from good, when possible, but know how to enter into evil, when forced by necessity.”¹⁴³

What is the connection here between empiricism or attention to real events and details and a “relative standard of value?” First we should note the difference between the view expressed in this passage and traditional scholastic views. As we have seen in chapter one, circumstances were understood by Albert, Aquinas, and others to determine the actual moral and legal status of an action for both legal judgment and the determination of sin. An action may be murder in one set of circumstances and just war in another. Here in Machiavelli the circumstances do not so much determine the moral nature of an action but justify or require it regardless of whether it is good or bad. As far as I can tell there is no reason to assume that the scholastics would be any less interested in circumstances than Machiavelli; they play a crucial role in both theories. We only think of Machiavelli as more empirical because he gives us example after example while the scholastics do not, though theoretically their theory could have inspired works of casuistry and example as detailed in the works of Machiavelli.

Machiavelli’s examples in the relevant chapter in the *Discourses* further emphasize the importance of flexibility and adaptation to circumstances. In the tenth

Habermas, what is striking and modern about Machiavelli’s view is that he thinks, unlike the ancients, that human behavior could be worked on like clay. Humans and their humors could be manipulated in the manner of the artisan. Habermas drew on Hannah Arendt for this view. Hannah Arendt, *Vita Activa* (Stuttgart, 1961), p. 293. Cited in Habermas, *Theory and Practice*, chap. 1 n. 34, p. 287. There is, however, no evidence that makes this a sensible reading of Machiavelli, whose art of war and prudence share more with the traditional Aristotelian *phronesis* than with *technē*.

¹⁴³ Machiavelli, *Prince*, chap. 18, p. 70.

chapter of book three, the Roman general Fabius's caution and slow deployment of the troops fit the circumstances of alarm at Rome after Hannibal's victories. But Fabius did not purposively adapt himself to the times; it was luck that his nature happened to fit the needs of the moment. Machiavelli concludes that individuals do not change their mode of operating, and so he vitiates this traditional aspect of prudence for individuals.¹⁴⁴

In this chapter Machiavelli retreated considerably from what seems to be the point of the *Prince* and the *Discourses*, that one can learn to be prudent by imitating the examples of past princes or republics. Machiavelli was skeptical that anyone has such prudence and can adapt himself to his circumstances, "because he cannot deviate from what nature inclines him to or also because, when one has always flourished by walking on one path, he cannot be persuaded to depart from it."¹⁴⁵ If Machiavelli really subscribed to the opinion that "he cannot deviate from what nature inclines him," then there is no such thing as prudence or deliberation, but merely luck. This would then contradict Machiavelli's statement which appears shortly before that "in order that our free will not be eliminated I judge that it might be true that fortune is the arbiter of half our actions, but also that she leaves the other half, or close to it, for us to govern." If Machiavelli, on the other hand, holds that men are not flexible because "when one has always flourished by walking on one path, he cannot be persuaded to depart from it," then there is still room for free will in Machiavelli in that one could logically do otherwise, but in fact will not. If

¹⁴⁴ Machiavelli proposed a solution to this problem in terms of institutional choice. He argued that republics fare better than principalities, since there are varied types of individuals who can come to the fore as needed. The general effect of the chapter is to exclude one of the principal components of traditional political prudence in favor of broad institutional choice—republics over principalities. But the question of the interaction of institutions and political knowledge is too broad for treatment here.

¹⁴⁵ Machiavelli, *Prince*, chap. 25, p. 100.

then Machiavelli believed that it was this reluctance to be persuaded that made princes fail to be prudent, then we can imagine that he meant the *Prince* and the *Discourses* as a plea for its readers to let themselves be persuaded to be flexible.

The fact that Machiavelli thought that there could be generalization of rules of human action at least some of the time is attested to not only by the multitude of maxims and generalizations that appear in all of his works, but also by his insistence on the similarity between individuals and peoples over time. So, in his preface to book one of the *Discourses*, he argued that imitation of the ancients was possible, because the world has not changed.¹⁴⁶ Yet Machiavelli rejected the possibility that one can always generalize rules of prudence, “because of the great variability of things which have been seen and are seen every day, beyond every human conjecture.”

Machiavelli did not lay out the political dimension of his methodology and it is difficult to piece together what he thought about the relationship of his method to politics. For, his method of deliberation and persuasion is used by both advocates of the *grandi* and the *popolo*. In Machiavelli’s depiction of the run-up to the *Ciompi* revolt in his *Florentine Histories*, Luigi Guicciardini, a magistrate, and aristocrat, used Machiavelli’s method of examples, and indeed his examples, to try to persuade the *popolo* to call off the revolt and recognize that all of their reasonable demands and even some of their unreasonable ones had been accommodated as much as possible if the unity of Florence

¹⁴⁶ Machiavelli, *Discourses*, book 1, preface. This is a key piece of evidence for those who think that Machiavelli is a scientist. Olschki and Walker refer to it as an axiom of the similarity of human nature. Olschki, *Machiavelli*, p. 30. Olschki looks forward to Galileo rather than back to Salutati in connection to this passage. Butterfield, *Statecraft of Machiavelli*, p. 26.

was still to be preserved.¹⁴⁷ But the examples do not work, since the leaders of the *Ciompi* have their own examples, and again we see clearly that Machiavelli's method does not have a straightforwardly impersonal application, which yields a determinate answer to the question, "What is the best policy for the city?" At least the *Ciompi* do not think so, since they fear that they have gone too far, and retreating at this point would mean their end. There is the slight indication that Luigi Guicciardini is probably talking good sense, that he is articulating what is best for the city, but the *Ciompi*, while self-interested, are not imprudent in Machiavelli's sense, since they are probably right too about what would have happened to them had they surrendered their arms at Luigi Guicciardini's urging.

In fact the anonymous *Ciompi* leader gives a perfectly Machiavellian speech, which has all the features of Machiavellian deliberation. While many of the speeches in the *Florentine Histories* sound like Machiavelli, in the same way that all the characters of most novelists sound more like the novelist than individuals, it is probably no accident that Machiavelli had a popular leader in perhaps the most famous popular revolt in Florentine history gave a speech which is a perfect exemplification of the teaching of the *Prince*. And if this is right, it is probably no accident that this anonymous leader is described as one of the "more experienced" of the member of the *Ciompi*. Machiavelli is saying that there is prudence among the *popolo* as well. They know how to reason and deliberate about politics as well as the Guicciardinis.¹⁴⁸

¹⁴⁷ Niccolò Machiavelli, *Florentine histories*, trans. Laura F. Banfield and Harvey C. Mansfield, Jr. (Princeton, 1988), pp. 119-20.

¹⁴⁸ Machiavelli, *Florentine Histories*, pp. 122-3.

Francesco Guicciardini explicitly endorsed the new “realistic” method of studying regimes rather than of imaginary republics. Bernardo introduces a new method of evaluating governments soon after the discussion begins in which governments are evaluated in light of their effects rather than their constitutional type, such as monarchy, democracy, or aristocracy. Del Nero clarifies that he is not interested in evaluating the Medici rule by classifying it according to regime type in the manner of Aristotle’s *Politics*, but in evaluating it according to the criteria that he has set forth. That this is a new criterion or criteria of the man of experience rather than a philosophical one is clear from Bernardo’s comment that he is unsure of what the philosophers would make of this.¹⁴⁹

Bernardo does not make an explicit connection between being experienced and his new criterion of judging regimes, but the implication is that this criterion is suggested by Bernardo because he is the man of experience par excellence. This criterion does introduce an element of empiricism into discussions of politics, since it is impossible to judge the regime a priori, by its type, without knowing, “where men are best governed, where laws are better observed, where there is better justice, and where there is more respect for the good of all, distinguishing each person according to his work.”¹⁵⁰ These criteria are general in some sense, but there is no one best regime type, or set of institutions which maximize these criteria. Rather, in the Florentine case, for instance, the Medici rule, despite being a kind of boss or patronage politics—a fact which is basically

¹⁴⁹ Francesco Guicciardini, *Dialogue on the government of Florence*, ed. and trans. Alison Brown (Cambridge, 1994), p. 14.

¹⁵⁰ Guicciardini, *Dialogue*, pp. 13-14.

admitted by all of the interlocutors—does a better job of meeting these criteria than the popular Savonarolan regime.

There might have been an empiricism to judging by type as well, as attested by the many discussion over the classification of Rome's regime type over the centuries, but probably less so than demanded by Bernardo's criterion. Though Bernardo himself has not read widely in history, he knows the utility of doing so and echoes Machiavelli's position perfectly, "For the world is so constituted that everything which exists at present has existed before, under different names, in different times and different places."

Guicciardini argued in the *Ricordi* that the variability of affairs and the need for discretion and equity mean that one must be a man of experience. He generalized the traditional argument about equity in legal matters to the informal rules of prudence and our habits in general.¹⁵¹ Individual judgment in turn required personal experience and not just a clear mind free from the passions, as was more traditionally emphasized. So Guicciardini wrote:

Let no one trust so much in native intelligence that he believes it to be sufficient without the help of experience. No matter what his natural endowments any man who has been in a position of responsibility knows that experience attains many things that natural gifts alone could never attain.¹⁵²

Guicciardini, like Machiavelli, referred often to experience in his *History of Italy* as a quality of a man, usually of a soldier, but sometimes of a politician. It is far more rare to find in Guicciardini the sense of experience as a record of historical data, and so Guicciardini rarely says that experience has taught us some lesson or some general rule.

¹⁵¹ Francesco Guicciardini, *Maxims and Reflections of a Renaissance Statesman (Ricordi)*, trans. Mario Domandi, introd. Nicolai Rubinstein (New York, 1965), Q₂ 12, B 35, 121, C 6, 186. Cited in Rubinstein, "Introduction," p. 24.

¹⁵² Ricordo 10. Cited in Felix Gilbert, *Machiavelli and Guicciardini* (1965; New York, 1984), p. 279.

Perhaps the most attention that experience garners in the *History* is the debate in 1495 over what the nature of political institutions in Florence should be after the fall of the Medici. In this debate experience is appealed to both as a teacher, as a record of past actions and events, as well as a quality of men. Paolo Soderini argued that there should be popularly elected magistrates “according to reason and experience.”¹⁵³ In response, Guido Vespucci, who we can only assume is Guicciardini’s favorite if not his mouthpiece, argued:

I am conscious, that reason teaches, experience shows, and the authority of great men confirms, that in no multitude was ever to be found such prudence, such experience, such order, as is sufficient to persuade us that they will prefer the learned to the ignorant, the good to the bad, and the experienced to those who were never employed in public affairs.¹⁵⁴

This reported debate closely matches the appeals to experience in the *Consulte e Pratiche* from the time. Felix Gilbert noted in one of the first articles using these materials that frequent appeal was made to experience in the political arguments of *Pratiche*.¹⁵⁵ The *practica* had been an elite aristocratic institution from 1495 to 1512, a set of consultative groups which were appointed only by the Gonfaloniere and were mostly composed of aristocrats.¹⁵⁶ Later larger *practica* were summoned, which were thus more inclusive. Guicciardini wrote that the aristocrats opposed Soderini’s use of

¹⁵³ Francesco Guicciardini, *The history of Italy*, trans. and ed. Sidney Alexander (New York,[1969]), vol. I, p. 245.

¹⁵⁴ Guicciardini, *The history of Italy*, vol. I, p. 252.

¹⁵⁵ November 13, 1495, vol. 61, fol. 92 and August 21, 1497, vol. 63, fol. 23. Felix Gilbert, “Florentine Political Assumptions in the Period of Savonarola and Soderini,” *Journal of the Warburg and Courtauld Institutes* 20 (1957), pp. 187-214, p. 203.

¹⁵⁶ Felix Gilbert, “Florentine assumptions,” p. 189.

only the *practica larga*.¹⁵⁷ This suggests again that Guicciardini saw the elite as the proper owners of an expert knowledge that should be drawn on in practice.¹⁵⁸

Guicciardini's identification of practical *political* knowledge with the *grandi* opposed the traditional identification, or in medicine at the very least, of practical knowledge with low social status. If there was an explicit revaluation of practical political knowledge it would have antedated Guicciardini, since it is apparent, to a lesser degree, in Scala and the in the *Consulte* and *Pratiche* of Scala's time, two generations before Guicciardini.

In Guicciardini's *Dialogue on the Government of Florence*, the character Bernardo del Nero cannot stop talking about his personal experience with government and how it qualifies him to speculate about the nature of the Florentine government, past, present, and future. He constantly refers to his great age as well, and all in all, the tone is quite similar to Scala's praise of Cosimo's experience.¹⁵⁹ Though Bernardo is supposed to be unlearned and a practical man of experience, he is actually an expert methodologist and philosopher of method who reflects consistently on the nature of their discussion in the dialogue and the sort of evidence and argument that they are carrying out. Del Nero almost certainly stands in for Guicciardini in the dialogue.

¹⁵⁷ Francesco Guicciardini, *Storie Fiorentine*, ed. R. Palmarocchi (Bari, 1931), p. 270. Cited in Gilbert, "Florentine assumptions," p. 190.

¹⁵⁸ The echoes of the significance of this for the rule of experts was not lost on Felix Gilbert: "The conviction of the Florentine aristocrats that they had a special competence for high policy-foreign affairs and finances-cannot be simply dismissed as the rearguard action of an aristocracy from which a democratic revolution had wrested political control, and which was now falling back on the argument of the need for the expert, so frequently used by a defeated ruling group against the influx of new elements into a political bureaucracy." Gilbert, "Florentine assumptions," p. 190. Gilbert is almost certainly thinking of the arguments of the Junkers as analyzed by Max Weber and others.

¹⁵⁹ Guicciardini, *Dialogue*, pp. 7, 8, 15-16, 21.

Guicciardini's commentary on Machiavelli's chapter in the *Discourses* on "However deceived in generalities, men are not deceived in particulars,"¹⁶⁰ is a further example of Guicciardini's equating experience with the elite. In the original text, Machiavelli had stated that the people had thought that the upheavals in the city were due to ambitious men, but then changed their minds after receiving better information. Guicciardini interpreted this passage of Machiavelli's to be a recommendation for first-hand knowledge. This is obviously another argument of Guicciardini's for elite political knowledge and expert rule. Guicciardini argued that "it is not surprising if someone ignorant of the particulars of matters should change his mind after he has known and seen them at first hand."¹⁶¹ For Guicciardini, experience means this sort of first hand knowledge.

But in the realm of medicine, this sort of first hand knowledge had been criticized for a long time, and especially virulently at the end of the fifteenth century. While by Guicciardini's time experience may have been more acceptable, some fifty years beforehand it was the watchword of rustics and ignoramuses. So, in Giovanni d'Arezzo's dialogue on law and medicine, another entry in the dispute over the arts, one Niccolò ridicules the presumption of unlearned rich men who judge which doctors are best:

For those who have riches and are honored by the masses, unless they are tempered by natural prudence become so inflated and presumptuous and swollen that they rely not on reason but on some windy opinion, so that they think that according to this they can distinguish one thing from the next. Therefore if their lucid visions suggest to their corrupt judgments that some rough ass sings poetic verses, they want him to be crowned with laurel by official proclamation as a poet. But if anyone should object to them that the hexameters or pentameters of

¹⁶⁰ Machiavelli, *Discourses*, bk. i, chap. 47.

¹⁶¹ Niccolò Machiavelli, *The sweetness of power: Machiavelli's Discourses & Guicciardini's Considerations*, trans. James V. Atkinson and David Sices (Dekalb, Ill., 2002).

this ass are not verses, since they lack a spondaic or dactylic foot, as the arithmetic or rational rules order, they will dare to answer: "I rely not on reason but experience." This they want even with respect to their doctors. For if they see some naked pustule cured by them, which these cunning fellows say is a cancer, then they bark that they have seen a cancer cured by an innkeeper, whom they wish to be preferred to Hippocrates. Therefore however much their innkeeper is ignorant of learning, they say that experience, *which I have seen with these eyes*, and not learning is to be believed, and that he is to be profitably preferred as a doctor.¹⁶²

Giovanni implied in this passage that the problem with first hand knowledge, with experience, is that one may be deceived if one relies on untutored and unlettered experience alone. One needs to know what is simply a pustule and what is a cancer. The world does not come to us pre-interpreted, we need learning.

From the perspective of social history what is significant about this passage is that is both the rich and the poor who are implicated. The standpoint is that of the scholar who is neither the rich simpleton nor the poor charlatan and rich street healer. There is an issue of social stratification or differentiation here, but it is between the learned and the unlearned, not the rich and the poor.

Practical experience was assumed to be important for political rule by Donato Giannotti (1492-1573), but he opposed Guicciardini, championing the *popolari* instead. Giannotti attributed prudence to them in his *Repubblica fiorentina*, written in the years after the fall of the last Florentine republic in 1530. Giannotti had been the secretary to the *Dieci*, in the short-lived republic, and played an important role in the republican

¹⁶² Giovanni d'Arezzo, "De medicinae et legum praestantia," in *La Disputa delle arti nel Quattrocento*, ed. Eugenio Garin (1947; Rome, [1982]), pp. 35-101, pp. 65-6.

resistance after the fall of the republic. The *Repubblica fiorentina* may have served as the bible of the republican resistance.¹⁶³

In the key passage of the *Repubblica*, Giannotti wrote:

Secondly, Aristotle said that he ought to command who has more prudence. Because whoever commands must order and direct the affairs, which is a quality of the wise and prudent man. Who wants to know where there is more prudence, by the *grandi* or by the *popolari*, will not find, if he examines the life and customs of the one and the other group, that the *popolari* have been surpassed by the *grandi*. Because prudence is acquired either through the practice of affairs or through reading. In so far as it is by reading, a *popolare* can read as well as a *grande*, and I do not see that the practice is greater by one part than the other. Because, where the affair is not disputed or deliberated, but is submitted to the will of one alone, it does not matter whether one attends the deliberations or not.

Giannotti here is making the argument that neither the *grandi* nor the *popolari* had true experience in decision making, in politics, since the decision was ultimately made by the Medici. This seems like a strange argument if it is calculated to establish that the *popolari* have sufficient prudence to command, that is, to rule. If neither the *grandi* nor the *popolari* had real decision making power then why should either rule? I think the explanation of this is that Giannotti wrote this partly as a plan for the future republic, which he hoped would be restored soon. He wanted to establish here that neither party had a claim to rule—to special political knowledge—based on past experience. There is an interesting echo here of the position of some of the scholastics who held that one must have *actual* political experience to have prudence.

It remains to consider the lives of the young and old of both groups. The old, both of the *popolari* and the *grandi* are all doubtless occupied with worthless and low thoughts, since they all have no other object but the accumulation of wealth. But there is a difference, that the *grandi* wish to assert themselves through the means of tyranny more than is worthy and just. For the *popolari* it is enough not to be

¹⁶³ Giovanni Silvano, "Introduction," in Donato Giannotti, *Repubblica fiorentina*, ed. Giovanni Silvano (Geneva, 1990), pp. 7-16.

hindered by compulsory labor or something else so that they can attend to their work. And following such ways, these acquire as much prudence as those, for we do not wish to say that he who lives with more modesty also has more prudence on account of the moral virtues being bound together.

Rejecting arguments for political maturity located in class, Giannotti tentatively put his faith for political leadership in the younger generation of the *popolari*:

We can also assert this about the young people, because the sons of the *grandi* do not know how to show their *grandezza* in any way but licentious living, disrespecting the civil practice and customs and persecuting the others with words and deeds full of reproach and abuse. The young people of the *popolari* attend to their business quietly and bear such unjust dominion with patience. From which it follows that the sons of the *grandi* cannot by virtue of their way of life acquire more prudence than those of the *popolari*. And if the *grandi* have said that prudence accompanies nobility, then without a doubt one must reckon them to be fools, since there is no one who is prudent, because he is noble and *grande*, rather because he is educated and experienced in human affairs.¹⁶⁴

While there is quite a bit of variation among the realists the common thread that ties them together may be that none of them favor a priori a particular regime type. This feature is clear in Salutati's *On Tyranny*, is reflected in Machiavelli's famous equivocation between principalities and republics, and is explicitly formulated in Bernardo del Nero's new criterion for politics in Guicciardini's *Dialogue on the government in Florence*. But if realism in political theory meant a departure from the old deductive method of the best regime, this did not mean that it was replaced with a properly inductive method of political science. The attention to experience which characterized the new thinking cannot be blithely equated with the empiricism of the new science of the seventeenth century. For example, Guicciardini, who is the most insistent on the importance of experience, is legendary in his hostility to generalization and prediction—two of the key characteristics of science.

¹⁶⁴ Giannotti, *Repubblica fiorentina*, III, 3, pp. 161-2.

Imitation and the idealism of the method of the possible

An emphasis on history need not be scientific. It depends on what one does with the history. Again the folk history of political science assumed that the turn to history meant the turn to inductive reasoning—that it meant hypothesis and data rather than principle and conclusion. But the main way of interacting with the deeds of the past in the middle ages and by and large in our authors as well is the method of example or imitation, whereby past deeds and men were held up as examples for imitation. The imitation of historical deeds and personages is certainly not realistic in any usual sense of the word; such deeds and men are selected not because they are descriptive or the usual thing, but because they are extraordinary moments in history. They are more often than not exemplifications of well-known principles rather than data for hypotheses or inductive conclusions. This is not science unless “useful history” is science. It is more literature meant to inspire than science meant to record or describe.

The idealization which accompanied the method of imitation was not simply in the past which was selected for imitation. Rather imitation was more than a method in our sense of the word, since it carried corresponding moral challenges. It may be that other methods require some moral qualities—mental focus, discipline, an openness to both sides of a case, a sympathy for our subject, but successful imitation requires more than the usual share. This is because to imitate a past great deed is not simply to study it, but to evoke virtues in oneself similar to those of the person imitated. Therefore, not only were the subjects of imitation praised, but the practitioners of imitation. There is still the sense today that different methods of study require different personalities, but the moral overtones have been mostly lost. Perhaps the closest echo is in the harsh judgments of the

political economists in the Victorian era, with their numbers and rules but without sympathy or human feeling.

If this is right then Niccolò Machiavelli is more of an idealist like his father than he is a realist in the sense of emphasizing the particularity of Scala, and Scala is actually taken up more by Guicciardini. Niccolò is more of a realist than his father, but is still closer to his father's position than Scala's and has retained something of his idealism.

Imitation was a byword of the early humanists. It was frequently used in a literary sense, referring to the imitation of the Latin style of the Roman authors. But it was also known to be one of the reasons for and methods of reading history. This was not a novel invention of the early humanists, but an echo of a classical justification for reading and writing history.¹⁶⁵ Like the Roman historians, these authors celebrated history and saw in history a storehouse of examples that could be imitated.¹⁶⁶ This was the traditional notion

¹⁶⁵ The role and purposes of history in this period has been studied in some detail. See Hanna Holborn Gray, *History and rhetoric in quattrocento humanism* (Ph. D. thesis, Radcliffe College, Cambridge, MA, 1956), Gilbert, *Machiavelli and Guicciardini*; Donald J. Wilcox, *The Development of Florentine Humanist Historiography in the Fifteenth Century* (Cambridge, MA, 1969), Arno Seifert, *Cognitio Historica* (Berlin, 1976) and Constantin Fasolt, *The limits of history* (Chicago, 2004).

¹⁶⁶ The classic passage on imitation among the Latin historians appears in Livy's preface: "What chiefly makes the study of history wholesome and profitable is this, that you behold the lessons of every example (*documenta exempli*) set in the clear record; from these you may choose for yourself and for your state what to imitate." Livy, *preface*, 10: Hoc illud est praecipue in cognitione rerum salubre ac frugiferum, omnis te exempli documenta in illustri posita monumento intueri; inde tibi tuaeque rei publicae quod imitere capias. The translation is a hybrid of the Loeb and Ogilvie's suggested reading in R. M. Ogilvie, *A Commentary on Livy* (Oxford, 1965), p. 28. Cicero's *Pro Archia* also contains a key passage: "How many images of the bravest men, carefully elaborated, have both the Greek and Latin writers bequeathed to us, not merely for us to look at and gaze upon, but also for our imitation! And I, always keeping them before my eyes as examples for my own public conduct, have endeavoured to model my mind and views by continually thinking of those excellent men." Cicero, *Pro Archia*, vi, 15. Diodorus Siculus, 1.1.4: For it is an excellent thing to be able to use the ignorant mistakes of others as warning examples (*paradeigmasi*) for the correction of error, and, when we confront the various vicissitudes of life, instead of having to investigate (*zêtêsis*) what is being done now, to be able to imitate (*mimêsis*) the successes which have been achieved in the past. This classical tradition was rehearsed in Pontano and Valla. See Gilbert, *Machiavelli and Guicciardini*, pp. 216-17.

of history as the *magistra vitae*—the “teacher of life”¹⁶⁷ and the notion that experience could be gained from history both more quickly and more easily than in real life.¹⁶⁸ The encouragement to imitate historical figures was doubtless mediated by the medieval practice of citing examples to be imitated in sermons. It is this idealizing and improving spirit which Salutati shared when in a letter of 1392 he wrote of the value of imitating the ancients as a reason for reading history.

When writing of imitation, Salutati wrote in an idealistic—or to some, romantic—mode: the men and women of antiquity to be imitated are all heroes about whose virtues Salutati cannot say enough.¹⁶⁹ It might be objected that imitation is necessarily idealizing, since one only imitates good things, This is true relatively speaking, but Salutati wrote in an absolute sense about the virtues of the ancients. They not only did what was necessary in a tight spot, but were good and virtuous as well.

There is some good evidence that imitation played a more important role in Florentine thinking than suggested by the excessive moments of the early humanists. Imitation appeared—though not by name in the debate on the nature of nobility which according to Hans Baron began in the 1420s. In a dialogue written by Buonaccorso da Montemagno in the 1420s on the subject set in ancient Rome an aristocrat debates with a new man over whether nobility consists in family and wealth or in personal virtue. Both men think that imitation plays some role in the acquisition of virtue, but the aristocrat thinks that along with inherited character the imitation of the nearby examples of his

¹⁶⁷ Cicero, *De Oratore*, ii, ix, 36. Cited in Gray, *History and Rhetoric*, p. 68.

¹⁶⁸ Didodorus Siculus, I, i. Quintilian, xii, iv, 2. Polybius, i, 35. Cited in Gray, *History and Rhetoric*, p. 85.

¹⁶⁹ On Salutati's occasional romanticism, see von Martin.

family members gives him the edge in nobility.¹⁷⁰ The new man argues in response that proximity is no guarantee of the transmission of virtue, and he gives many examples of rotten apples falling far from the tree. The new man has a mimetic theory of the acquisition of virtue as well: “Nature has established the mind as the fount of human life and as a kind of mirror, as it were; if you show it beautiful images, it will reflect beautiful images back, but if you show it base images, even baser images will appear.”¹⁷¹ This is not a sure-fire guarantee of virtue for the descendants of virtuous men, however, because in many cases the mirror is darkened and reflects poorly.¹⁷² The new man is a student of the liberal arts and we might imagine that he wishes to supply his lack of family examples with historical examples. Certainly he relies heavily on such examples for his argument, but he does not actually go so far as to claim that his studies are important for practical virtue. The reason may be that his studies are meant to be a sign of contemplative virtue rather than of his practical virtue.

The thinking of the aristocrat, the Scipio, in da Montemagno’s dialogue is echoed by Bernardo Machiavelli, Niccolò’s father, in Bartolomeo Scala’s *Dialogue on the laws*

¹⁷⁰ Buonaccorso da Montemagno, “Treatise on Nobility,” in *Knowledge, goodness, and power: the debate over nobility among quattrocento Italian humanists*, ed. and trans. Albert Rabil, Jr. (Binghamton, NY, 1991), p. 35: “Sometimes the characters of the children are similar, with almost the same refinement of mind and body. In addition, one may add the daily training, the domestic habits, the continuous example of words and deeds to which the minds of the children are continuously exposed.” p. 36: “While it is true that those inanimate stones can never be of advantage to the republic, the life of descendants in the imitation of their ancestors brings about many useful effects, benefits many citizens, even drives away many misfortunes.”

¹⁷¹ da Montemagno, “Treatise on Nobility,” p. 41.

¹⁷² da Montemagno, “Treatise on Nobility,” p. 45: “Just as brilliance never glitters in a dark mirror, so virtue cannot shine in the destructive and wicked children of virtuous parents.”

and legal judgments written in 1483.¹⁷³ Bartolomeo Scala was a friend of the Medici, who, with the patronage of Cosimo and Lorenzo, rose to be the chancellor of Florence. The *Dialogue* is an imagined discussion on the nature of law between Bernardo Machiavelli, who is Niccolò's father, and Scala himself. In an aside, Bernardo brings up imitation. But Bernardo is not concerned with the imitation of the heroes of classical antiquity but with the imitation of one's ancestors.

The method of imitation then, like experience, as we shall see shortly, was tied to an ideological context in Florence. Bernardo Machiavelli, in an aside, noted the prevalence of the instinct to imitate one's forebears: "We are born with a strong instinct for imitation."¹⁷⁴ Vice is easily imitated according to Bernardo, virtue with more difficulty. The instinct for imitation is a reason for upholding traditional powers that be, since it is easier to be noble if one has noble ancestors. Since, according to Bernardo Machiavelli, "It is clearly more difficult to become noble through personal effects and without the aid of one's ancestors." It is unclear what Scala's position is on this, since Scala the character in the dialogue ignores this aside of Bernardo's. Bernardo does mention that he is all the more impressed by Scala's nobility despite coming from a humble background (Scala was the son of a miller), but there is no commentary on Bernardo's "instinct to imitation."

Bernardo here reflects both traditional Florentine values and realities. Florence was a city of close families where by Bernardo's time nobility had long ceased to mean the old feudal nobility, but referred instead to those families who had a hold on political

¹⁷³ David Marsh, "Introduction," in *Cambridge translations of Renaissance philosophical texts*, ed. Jill Kraye (Cambridge, 1997), p. 173.

¹⁷⁴ Scala, *Dialogue*, p. 181: *innata in nobis imitandi quaedam non pusilla vis.*

and economic power. By the early fifteenth century the council was dominated by less than two dozen families, in which the positions were often—though not formally—hereditary.¹⁷⁵ In such a context, the imitation of one’s elders was a sensible recommendation, though with a tinge of idealism, like the lecture of a bourgeois father to his son in some Victorian novel. It is also no wonder that Bernardo marvels at Scala’s success, if the conditions of the later fifteenth century were anything like they were at the start of the century.

Scala and his namesake in the dialogue are definitely of a new age, and this aside on imitation, which serves no other purpose in a dialogue on the nature of law, functions as a signal of Bernardo’s outdated views and outlook on life. I will say more about Scala below in the discussion of personal experience and attention to circumstances, but it can be noted here that Bernardo is pictured as an idealist in contrast to Scala. For Bernardo stands in the dialogue not just for imitation but for natural law based on eternal principles in keeping with Plato’s account in the *Minos*. Scala takes the position that there are too many particulars for general rules. Bernardo may also stand for the old Florence of family values, while Scala stands for the individual, who needs personal experience more than proximity to powerful relatives.

It should be said that Niccolò would agree that the imitation of virtue is difficult, but while he spoke often of the benefit of imitation, nowhere did he speak of it as an “instinct,” and Niccolò did not tie imitation to the nobility either. Imitation is tied to nobility in Josse Clichtove’s essay on “True Nobility,” but I believe Clichtove is not a partisan of the nobility of birth. Of course an “instinct” to imitation would bolster

¹⁷⁵ Gene Brucker, *Renaissance Florence* (New York, 1969).

arguments for the naturalness of the nobility of birth, since one could assume, as Bernardo did, that there will be close family resemblance and that nobility once introduced into a family would be preserved by the instinct to imitate one's forebears.

Niccolò Machiavelli must have been raised with talk of imitation ringing in his ears. Not only his father (reportedly), but his schoolmates took imitation as the proper activity for virtuous "noble" youths. Michele Verino, a schoolmate of Machiavelli's in ser Paolo da Ronciglione's grammar school, and something of a Florentine noble, wrote in praise of the Florentine Studio, the Florentine university, not long after Scala wrote the *Dialogue*, that the many noble youths there were concerned not simply with nobility and wealth, but with literary fame and the imitation of virtue.¹⁷⁶ This passage reflects the Florentine debates over the nature of true nobility as well as the concern over the imitation of virtue.

It is perhaps little wonder that Machiavelli being very much a Florentine valued imitation highly nor that being Machiavelli he found a way to criticize it and tar its idealism at the same time. It is well known that Machiavelli stated in the *Discourses* that the real knowledge of history is the imitation of the great deeds of the past and in the

¹⁷⁶ Armando F. Verde, "Niccolò Machiavelli studente," *Memorie Domenicane*, NS 4 (1973), pp. 404-408, p. 408. Michele Verino, *Epistolario*, lib. I, 32: Quid letius? quod iocundius spectaculum quam videre adolescentes multos nobiles, egregia indole, qui, non sola nobilitate ac divitiis nitantur, quae communia plerumque sunt malis, [cf. Augustine, *City of God*, 1.8] sed famam ex studiis quaerant litterarum? O preclarum gymnasium florentinum! Non enim scenicis ludis, non aleae, non obscenae voluptati dediti, ut captus est iuventutis, sed emulatione virtutum praeclara vicissim imitantur ingenia.

What is more pleasant? What sight is more pleasing than to see many noble youths of native excellence, who strive, not only for nobility and wealth, which often indiscriminately go to the wicked, but seek fame from their literary studies? O excellent Florentine university! For they are not dedicated to the theatre, gambling, or obscene pleasure, as is a prisoner of youth, but on the contrary in emulating virtues, they imitate excellent qualities.

Prince that the method of the prudent man is to imitate the behavior of great men.¹⁷⁷ But Machiavelli was pessimistic about imitation, partly due to the variability of circumstances and the concomitant difficulty of making generalizations, but partly due to the moral failings of individuals. In one of the chief passages that provides evidence for the view that Machiavelli thought imitation was possible, a close reading reveals that Machiavelli was pessimistic about the success of learning from the past.¹⁷⁸

Machiavelli wrote:

Whoever considers present and ancient things easily knows that in all cities and in all peoples there are the same desires and the same humors, and there always have been. So it is an easy thing for whoever examines past things diligently to foresee future things in every republic and to take the remedies for them that were used by the ancients, or, if they do not find that they were used, to think up new ones through similarity of accidents. But because these considerations are neglected or not understood, they are not known to whoever governs, it follows that there are always the same scandals in every time.¹⁷⁹

Machiavelli wrote that given that there are the same passions and desires in the past and present, it should be possible to learn from the past for the present and the future. But no one ever learns, and “the consequence is that similar scandals occur at all times.” The examples cited by Machiavelli show that there was no progress, since the Florentine people were as pigheaded as the Roman people, and neither group learned to examine the real causes of their misfortunes.¹⁸⁰

¹⁷⁷ Machiavelli, *Discourses*, book II, prologue, *Prince*, chap. 6, p. 22.

¹⁷⁸ Olschki argued that Machiavelli was actually naïvely optimistic about the promises of imitation. Olschki, *Machiavelli*, pp. 42, 45.

¹⁷⁹ Machiavelli, *Discourses*, I.39.1, pp. 83-4.

¹⁸⁰ Machiavelli, *Discourses*, I.39.1. Butterfield, Olschki, and Walker interpret Machiavelli sincerely to mean that imitation of past remedies is possible, while Mansfield takes the more pessimistic view. Butterfield, *Statecraft of Machiavelli*, p. 27; Olschki, *Machiavelli*, p. 30; Walker, *Discourses*, pp. 96-7. Mansfield, *Machiavelli's New Modes and Orders* (Ithaca and London, 1979), p. 124.

There is a passage in the *Art of the War* on imitation of the ancients wherein Machiavelli advocates imitating the ways of life of the ancients in the same manner that Christians were encouraged to imitate the way of life of Jesus. Both Christians and imitators of the ancients have similar challenges in imitating what seems to be impossible and behaving extraordinarily. In the passage Cosimo Rucellai defends his grandfather, Bernardo, for not imitating the ancients in their rugged ways. Cosimo argued that Bernardo was justified in not imitating them because his age was corrupt and soft and so Bernardo did not want to be despised or ridiculed by his contemporaries for imitating the ancients.

So, Cosimo explained:

So that if a man should have exposed himself naked upon a sandy beach to the heat of a noonday sun in the middle of summer, or rolled himself in snow in the depth of winter, as Diogenes did, he would have been looked upon as a madman: if anyone had brought up his children, like the Spartans in cottages or farmhouses; if he had accustomed them to sleep in the open air, to go barehead and barefoot, to bathe in the coldest streams, in order not only to make them bear hardships the better, but to despise both life and death, he would have been accounted a beast rather than a man: if, lastly, he had lived upon pulse and roots and such sort of things, if he had made no account of money, like Fabricius of old, he might have been admired by some few, but he would have been followed by nobody.¹⁸¹

Fabrizio Colonna, the general who fought for Ferdinand the Catholic, who had criticized Bernardo in the first place, responded that this was not the sort of thing that he was concerned with, but “To honour and reward virtue; not to despise poverty; to keep up good order and discipline in their armies; to oblige their fellow-citizens and subjects to love one another, to decline faction; to prefer the good of the public to any private

¹⁸¹ Niccolò Machiavelli, *The Art of War*, in *The works of Nicholas Machiavel* (4 vols., London, 1775), IV, book I, p. 18.

interest; and other such things which would be compatible enough with these times.”¹⁸²

This is a tall order, but Fabrizio does not think so, and he claims that it will not be difficult to persuade people to imitate the ancients in these respects.

It has been claimed that Machiavelli sided here with Fabrizio, but if he was sympathetic to Fabrizio he also wanted to show through the dialogue how difficult the project of imitating the ancients was. For as we have seen Machiavelli was extremely pessimistic about the possibility of persuading anyone to learn from the past, and Fabrizio’s list seems far out of touch with reality.¹⁸³ After all, Machiavelli dedicated much of the *Discourses* and the *Florentine Histories* to faction, and almost none of the other items on Fabrizio’s list were easily attended to by the Romans. Rather, they are all things that the Roman historians, such as Sallust, complain are lacking in the Romans. Machiavelli is almost certainly poking fun here at Fabrizio and at the ideal of imitation, which, is both unrealistic, and as Nietzsche might put it, untimely. The difficulty in imitating the ancients is not just a difficulty in correctly judging the similarity of the circumstances, given the variability of circumstances, but rather a moral failing, a weakness or corruption which prevents people from trying to imitate the ancients in their rugged ways, or in their more serious institutions, and which causes people to mock those few who do try. There are echoes here of the Christian piety of the fifteenth and sixteenth

¹⁸² Machiavelli, *The Art of War*, book 1, p. 19.h

¹⁸³ John M. Najemy, “Machiavelli and the Medici: The Lessons of Florentine History,” *Renaissance Quarterly* 35 (1982), pp. 551-576, pp. 562-3, reads this as a more or less straightforward criticism of the age of Lorenzo de Medici, who was contemporaries with Bernardo Rucellai. Given the extreme nature of what Fabrizio asks for, and Machiavelli’s pessimistic comments elsewhere about imitation, I find this reading unlikely.

century, which emphasized the imitation of Christ.¹⁸⁴ One could easily read Cosimo's defense of his father as a defense of someone who was afraid to try and imitate Jesus, who of course, is known to have shared some qualities with Diogenes and the Cynics.

What does this have to do with science? In our sense of the term almost nothing. The fact that relatively few people are successful at imitating great historical personages is unsurprising and irrelevant to the history of social science. But it must be remembered that Machiavelli's purpose is practical. His generalizations are recommendations based on imitation. They are statements of the kind: act like great person x and y will happen. But if we cannot imitate x because of the intractability of our natures then y will never happen. Of course, it will be objected, that the scientist is concerned with the relationship between x's behavior and y and not on how often the rule is invoked. Since, for example, the course of even the rarest diseases are of scientific interest.

While these observations of Roman and Italian heroes and villains may be of some interest to the theoretical scientist, they will be a collection of generalizations about extremely rare and specific phenomena, like a set of generalizations on the extremely rare slender-billed curlew or sapphire-bellied hummingbird. They may make for good reading but they are of doubtful value for one looking to have a general understanding of politics.

¹⁸⁴ See for example Josse Clichtove, *De vera nobilitate opvscvlum* ([Parisiis, 1512]), translated as *The booke of noblenes*, trans. John[n] Larke ([London, 1550?]), chap. 6, where Clichtove elaborates on the imitation of good men and cites John 13:15: "For I have given you an example, that ye should do as I have done to you" (*exemplum enim dedi vobis ut quemadmodum ego feci vobis ita et vos faciatis*). The chapter is remarkably similar to Machiavelli, and Clichtove mentioned that this was the practice of virtuous Romans, such as Cicero and Quintus Fabius who were inspired to virtue by the sight of the images (*imagines*) of their forefathers alone, but it also, and perhaps more significantly was the practice of great Christians through the ages. On Clichtove, see Jean-Pierre Massaut, *Josse Clichtove, l'humanisme et le réforme du clergé* (Paris, 1968). Both Clichtove and Machiavelli may have been influenced in this regard by Petrarchan humanism.

As we shall see shortly, this is Guicciardini's criticism of the method of the possible in politics—it may be possible but it almost never happens.

There is a very interesting discussion between Capponi and Bernardo del Nero in Guicciardini's *Dialogue on the Government in Florence* that shows a keen awareness of the idealizing nature of the method of imitation. Bernardo argued that because of the Florentine passion for equality there could be no stable type of government in Florence between one-man rule and the rule of the people, since any intermediate position where a few rule would collapse into the others. To this, Capponi argued that there had been such an intermediate government in fact, "in the days of Messer Maso degli Albizi," when Florence was "in the hands of the leading citizens of most worth." Bernardo replied that this was an exception, because there were particular reasons why that government remained united, chiefly the recent experience of tumult and discord due to the Ciompi revolt and the rule of Giorgio Scali and the plebs. At this point, Bernardo begins reflecting on method. Bernardo summarizes Capponi's position as the possible, and his own as the probable, though he does not use this latter word. Bernardo put it like this:

And if you said to me, it was possible then, so why shouldn't we too enjoy that happiness again in our times, I'd have to agree, why not? But arguing from reason the odds would be twenty to one against it happening, and the same arguing from experience. However, I don't know how prudent it is to base oneself on the hope that something may happen in one way when it almost always happens in the opposite way.

This distinction between the possible and the probable which Guicciardini dramatized here is extremely important in the history of political science. The method of the possible is the old method of imitation and example—the method that points to the

best that was ever done and says, “this is possible,” this is what we should and can do. The method of the probable is the method of what usually happens, the method of generalizations of behavior. Though Machiavelli is usually thought to be an advocate of generalization he practiced more the art of the possible than the probable.¹⁸⁵

The possible is the method used in business schools and education schools today, which is the method of the exemplar or “best practices.” It says that some great deed was done by humans and so can be done you. This is the method of example that Albert described when he said that an example of a great man is the universal for human affairs, since there can be no true universals in human affairs. It is the pattern that we should model ourselves after. What Del Nero is saying is that when you see something that seems to be an example of extraordinary virtue you are not actually seeing that, but exceptions to rules that have special reasons for existing. Del Nero makes an especial point of saying that there is an exception to every rule.

This attitude is quite different from Machiavelli as well, who thought that extraordinary behavior was possible that should serve as an example. He may be more pessimistic than Capponi about whether we will follow such an example, since Machiavelli thought that we are too weak and inflexible to do so, but both Machiavelli and Capponi would think them possible.

There is no question that Machiavelli and Guicciardini are more realistic, more skeptical, and more pessimistic about imitation than the fifteenth century sources. Scala was already moving away from it, by associating it with Bernardo’s outdated views, but it is hard to know from the *Dialogue* what his thoughts on it as a method really were. To

¹⁸⁵ Guicciardini, *Dialogue*, p. 23.

Niccolò Machiavelli and Guicciardini it is clear that imitation is a piety of both the early humanists and fifteenth century Florence more generally. It is easier said than done and is thus unrealistic in supposing that men are capable—have the moral capacities—to imitate the best in others.¹⁸⁶ In Guicciardini we see that imitation is contrasted with what is generally done and as such realism can be said to contribute to science in this instance, though perhaps only in the negative sense in which the unscientific method of imitation is rejected.

Words and deeds

Part of the folk history of political science is the thought that political realists of the Renaissance looked more at what people do than what they should do. This shift of attention to action is thought to be the ancestor of our political behaviorism, which tries to draw conclusions from political behavior rather than from official literature or position statements. To our mind, such a shift of attention is both more realistic and more scientific: more realistic because it has less to do with hopes and programs and more to do with what has actually been done and more scientific because it resembles the observation of uninterpreted physical phenomena that makes up so much of what we think of as science today. But there is no evidence that the thinkers of the sixteenth century or earlier saw the resemblance to science. Machiavelli may have been opposing

¹⁸⁶ My interpretation of Machiavelli's pessimism about imitation opposes the explanation of *Discorsi* I.39 given by Anthony Parel. Parel argues that Machiavelli is speaking in astrological terms in this passage and that the reason individuals cannot adapt themselves to their times is because they have certain humors, that is, effectively, that they were born under a certain star. The passage in the *Art of War* and the implied comparison with Christian entreaties to imitate Jesus has led me to stress inflexibility as a moral failing, though I am sympathetic with Parel that we need to take astrology seriously in thinking about these authors of fifteenth and sixteenth century Florence. Anthony Parel, *The Machiavellian cosmos* (New Haven, 1992).

the real to the ideal, but not the scientific to the unscientific. In fact the practice of opposing deeds to words was advocated since Aristotle as a means of checking idealism against the requirements of the real world. While the realism of the Renaissance may not be a new thing, the claim that the ideal is unrealizable is championed with a new fervor. This skepticism or suspicion of the ideal in the political realism, while illustrated by fact and example, shared more with anticlericalism and a proverbial ridicule of the religious orders than with the natural sciences of the time.

The relevant passage in Aristotle's *Nicomachean Ethics* appears in book ten, towards the very end of the book, where Aristotle is discussing once again the nature of happiness (*eudaimonia*). Aristotle warned the reader that in listening to the various opinions of the philosophers about the best life one must look beyond their arguments. For, he wrote, "Such arguments then carry some degree of conviction; but it is by the practical experience of life and conduct that the truth is really tested, since it is there that the final decision lies."¹⁸⁷

It is hard to square this recommendation of Aristotle's with his theory of weakness of will (*akrasia*). According to this theory, Aristotle should not believe that saying one thing and doing another invalidates a theory. For Aristotle believed that people can understand what the right thing to do is in a given situation without being able to do it. He rejects the Socratic notion that knowledge is sufficient for virtue. This means

¹⁸⁷ Aristotle, *Nicomachean Ethics*, ed. H. Rackham, 1179a1; Aristotle, *Ethica Nicomachea*, trans. Robert Grosseteste in Albertus Magnus, *Super Ethica*, Vol. 2, p. 776: Fidem quidem igitur et talia habent quandam, verum autem in operabilibus ex operibus et vita iudicatur; in his enim dominans. Intendere autem praedicta oportet ad opera et vitam inferentes, et consonantibus quidem operibus acceptandum, dissonantibus autem sermones suscipiendum. Other translations are available in *Contenta decem librorum Moralium Aristotelis, tres conversiones: prima Argyropili Byzantij, secunda Leonardi Aretini, tertia vero antiqua* (Paris, 1527).

that the philosopher might very well be able to describe the good life without being able to live it. How then can he recommend inspecting the actions of the philosopher as a check on their theories?

In Albert the Great's paraphrase of the passage in the *Super Ethica*, he echoed Aristotle's realism. Albert paraphrased Aristotle but made the contrast between word and deed more prominent. Thus he concluded that words which did not correspond to deeds "should be understood as mere words as they sound in the air."¹⁸⁸

In the questions on the text, though, Albert moved beyond the contrast between words and deeds to argue that the practical example of good men is an important part of the method of moral philosophy. According to Albert's reasoning, it is wrong to trust the statements of philosophers about actions implicitly since there cannot be universal statements about actions, because all actions are particulars. The actions of good men then serve as examples which should be considered as ersatz universals, since they serve as a pattern for action, just as a shoemaker's wooden shoe is used to make other shoes.¹⁸⁹

¹⁸⁸ Albertus Magnus, *Super Ethica*, II, p. 777, vv. 18-23: Et ideo oportet ea quae dicta sunt, inferre per considerationem ad vitam et opera ita dicentium, et si sermones, qui sunt in operabilibus, consonant operibus, eis est consentiendum, si autem dissonant, sunt suscipiendi sicut leves sermones tantum, ut sonant in aëre.

¹⁸⁹ Albertus Magnus, *Super Ethica*, II, p. 773, vv. 27-41: It should be responded that in actions there are imperfect arguments because they are concerned with particulars, and therefore statements about them do not offer perfect belief, but rather show actions through examples of deeds, just as Anselm says about the healthy herbs, which he says are poisonous if eaten. [Cf. p. 283 v. 30-34.] And therefore in actions the deeds of good men are accepted as examples as of universals of a kind, applicable to every individual, just as the form of a shoe, which is made of wood, is applied to all shoes. But it is otherwise with theologians, though their statements are not sufficiently proven, and though they do not have credence from the authority of the speaker, who is no one, nevertheless they have credence from inspiration, because [even] living wickedly he presents the teaching of God and therefore it is fitting that he be believed. Dicendum, quod in operabilibus sunt imperfectae argumentationes, quia sunt in particularibus, et ideo sermones de se non faciunt perfectam fidem, sed magis certificant operabilia per exempla operum, sicut dicit Anselmus de herbis salubribus, quas dicit venenosas comedens. Et ideo in operabilibus accipiuntur pro exemplis opera bonorum quasi quaedam universalia applicabilia unicuique, sicut forma calcei, quae est in ligno, applicatur omnibus calceis. Sed secundum theologum aliter est, quia sermones, cum non sint sufficienter probati,

Thomas Aquinas also emphasized the practical aspects of learning to be virtuous in his commentary on Aristotle's *Ethics*. In fact, Aquinas, who often elaborated on Albert's teaching, explained how the method of example is tied to the contrast between words and deeds. One should not conceive of one's ultimate good, of happiness, according to the words of philosophers, but according to their actions. This approach can be described as "realistic" because as practical philosophy, the goal is action, not determining the truth of propositions. Therefore, with Aquinas the implication is that it matters not only what is deductively true, but what is actually possible in the realm of human action. So, Thomas wrote,

For in questions of this kind our principal aim is not knowledge but conduct, as stated in the second book. This is why we ought to consider what has been said by comparison with the actions and life of the philosophers. Statements in keeping with the conduct of the philosophers should be accepted. For instance, abundant riches are not needed for happiness, and the philosophers do not seek them. But if their actions are not in accord we should suspect that their words lack truth. This is evident concerning the opinion held by the Stoics who maintained that external goods are not human goods; yet, their actions show the contrary, for they desire and seek these as goods.¹⁹⁰

This realism about which statements should be accepted or rejected is still a criterion about statements. It does not go as far as Albert in replacing statements with deeds as ersatz universals, and is such only a partial empiricism or behaviorism.

The commentators on the *Nicomachean Ethics* between Thomas and the Florentines humanists of the fifteenth century stayed close to the text, adding very if any

quamvis non habeant fidem ex auctoritate dicentis, qui nullus est, tamen habent fidem ex inspiratione, quia proponit male vivens doctrinam dei, et ideo oportet, quod ei credatur.

¹⁹⁰ Thomas Aquinas, CNE, book X, lecture XIII, p. 637.

little insight.¹⁹¹ They did not seem to be gripped by this passage in the same way that later commentators would be.

There is evidence that Albert and Thomas's *Ethics* commentaries were known in Florence. Salutati refers to them in a letter around 1400, they were on the shelves along with Giles's *De Regimine* of the Dominican convent outside of Florence. All of their works are well represented in manuscripts from the time and were printed in Italy as well. Buridan's commentary was widely known and there are a fair number of manuscripts from the time. The Greek commentaries were also known from early on and Salutati, Petrarch, and Bruni commented on a copy of Eustratius's commentary.¹⁹² Savonarola was a Dominican, and as we shall see there is some evidence that his references to Thomas and other scholastic writings in his sermons provided something of a connection between the scholastic commentaries and the politics of Florence.¹⁹³

Coluccio Salutati examined deeds and not just words in history in his *On Tyranny*. Salutati looked beyond the protests of the Romans against Caesar to their deeds and found that those same people who protested that he was a tyrant had no difficulty in accepting benefits and appointments from him.¹⁹⁴ Salutati also takes pains to introduce historical examples to prove that Roman legal principles were in enacted in practice and

¹⁹¹ Odo does not have a question on the topic, and his gloss is extremely dry and close to the text. Gerard of Odo, *Sententia et expositio super libros ethicorum Aristotelis* (Venice, 1500), book X, lectio XI, pp. 188b-189a. Buridan does not have a question on this topic.

¹⁹² Lines, *Aristotle's Ethics in the Renaissance*, pp. 162-6.

¹⁹³ Donald Weinstein, *Savonarola and Florence* (Princeton, NJ, 1970).

¹⁹⁴ Coluccio Salutati, *De Tyranno*, in *Humanism and tyranny*, ed. and trans. Ephraim Emerton (1925; Gloucester, MA, 1964), , pp. 70-116, p. 101.

were not simply abstract principles.¹⁹⁵ Indeed, Salutati made the conflict between word and deed explicit in his criticism of Cicero as a deceitful orator. “Why make conjectures as to the secrets of men’s hearts,” Salutati asked, “when the facts of the case proclaim the contrary? You will have to be a greater master of oratory than you are, Cicero, if you expect to make guess-work and mere words overcome the evidence of facts.”¹⁹⁶ Yet Salutati is not completely behavioristic. There are moments for behavioral argument and moment for legal or normative argument. Thus he criticized John of Salisbury for blurring this distinction: “His illustrations prove, not that the murder of tyrants is right, but that it is frequent.”¹⁹⁷

Thomas’s commentary was well known and there is an echo of his comments in Poggio Bracciolini’s (1380-1459) criticisms of Stoic nobility in his essay *On Nobility*.¹⁹⁸ In this dialogue on the true nature of nobility it is argued by one character that Stoic virtue is true nobility, but it cannot be, says the other, because Stoic virtue is to be found nowhere. Poggio also echoed Thomas’s sentiment more closely in a passage in his essay *On the Unhappiness of Princes (De Infelicitate principum)*, where he wrote that the ideal of the Stoic wise man cannot be found, and that one should look for one’s good in experience. He departs from Thomas though in concluding that therefore prince do not need perfect virtue. “It is enough,” Poggio wrote, “that there be in them some virtue; it

¹⁹⁵ Salutati, *De Tyranno*, pp. 80-81.

¹⁹⁶ Salutati, *De Tyranno*, p. 103. Salutati, *Tractatus de Tyranno*, ed. Francesco Ercole (Berlin, 1914), p. xxxv: Quid michi, Cicero, verba iactas? Quid de secreto mentium coniectaris, cum rebus atque factis contrarium videamus? Te vincas oportet in dicendo, Cicero, si volueris eloquentia consequi, quod coniecture et verba factorum evidentia non vincantur.

¹⁹⁷ Salutati, *De Tyranno*, p. 90. Ed. Ercole, p. xxxi: Non enim probant exempla tyrannos occidere iustum, sed potius usitatum. Cf. John of Salisbury, *Policraticus*, 8.19.

¹⁹⁸ *Knowledge, goodness, and power*, ed. and trans. Rabil.

need not be perfect, but at the very least that there be the semblance and feigned likeness of those virtues toward which the civic life is directed.”¹⁹⁹ This remark in the essay on the unhappiness of princes suggests that Poggio was at least somewhat sympathetic with Lorenzo’s character in his dialogue on nobility and not with the adamant Stoic Niccoli.

Poggio’s insistence that theories about virtue must be tested and confirmed by experience emerged again in the *Facetiae*, to which Machiavelli’s favorite phrase encapsulating his methodological realism—that one should judge by the hands, not by the eyes—has been traced.²⁰⁰ In one of the fables, a man is strangling some small birds in a cage. The man begins to cry and one of the birds, noticing, tells the others to be optimistic since the man will take pity on them. Poggio ends the fable thus: “So [spoke] an elder of these: ‘O my son,--he said--do not look at his eyes, but his hands,’ showing that not words, but deeds should be attended to by us.”

Poggio does not show himself elsewhere in his writings to be a great advocate of this maxim. His view of prudence is quite traditional, and while he thought that experience was a condition of prudence, he does not depart from the traditional Aristotelian way of speaking about it as connected to the moral virtues.²⁰¹ In fact, in a

¹⁹⁹ Poggio Bracciolini, *De Infelicitate Principum*, in *Opera*, I, p. 411. Cited and translated in Riccardo Fubini, *Humanism and secularization*, trans. Martha King (Durham, 2003), p. 104. Fubini does not connect this passage to Thomas and the Aristotelian tradition.

²⁰⁰ Giovanni Bardazzi, “Tecniche narrative nel Machiavelli scrittore di lettere,” *Annali della Scuola Normale Superiore di Pisa*, ser. III, 5 (1975), pp. 1443-1490, p. 1486. Cited in Viroli, *Machiavelli*, p. 67. Poggio Bracciolini, *Facetiarum liber*, in his *Opera Omnia*, ed. R. Fubini (4 vols., Torino, 1964), I, pp. 420-481, p. 486: Hic senior ex eis: “O fili--inquit--non ad oculos respice, sed ad manus,” non ad verba, sed opera monstrans esse a nobis respiciendum.

²⁰¹ Poggio Bracciolini, *In Funere de Francisci Cardinalis Florentini oratio*, in his *Opera Omnia*, I, pp. 252-261, p. 257: Erat in eo usus atque exercitatio rerum plurimarum incredibilis. Multa tenebat praeteritorum monumenta, antecedentia connectens praesentibus. Quid in re dubia facto esset opus, facile conieciabat. Nemo ad eum consulator adiit (plures autem quotidie accedebant) quin sibi bene consultum putaret. Erat animus in consulendo liber omni cupiditate ac perturbatione vacuus. Itaque tantam fuerat auctoritatem ex eo

letter of July 1438 to Filippo Maria Visconti (1392–1447), the Duke of Milan, in which Poggio defended the prudence of the Florentines against the charge that they are “blind,” he did not associate prudence with the capability to see through words or appearances, but pointed instead to the moral virtues which were part of the traditional Aristotelian description of prudence and were mentioned in the funeral oration discussed above as well.²⁰² This is precisely where we would have expected to see a new realism, but instead get a more traditional view. The clear sightedness of prudence did not entail a realism here, but simply the ability to “see” clearly without the passions clouding one’s sight. The thought that the moral virtues helped one “see” more clearly in one’s exercise of prudence appeared in some of the commentaries on the *Nicomachean Ethics*, including that of Faber Stapulensis, who wrote of the moral virtues as a lamp guiding one’s way.²⁰³

Other Florentine commentators also addressed the issues Aristotle raised about the differences between a philosopher’s words and deeds. One of these was Donato Acciaiuoli, who was then followed by Machiavelli and Piero Vettori.²⁰⁴ There are two very important developments within the short commentary on the passage.

secutus, ut si forte errore aliquo (prout fert fragilitas nostra) paululum laberetur, tum proinde acciperent ac si factum id esset summa cum ratione. In a funeral oration for the Florentine Cardinal Franciscus, Poggio showed that he thought of experience (and the reading of history) as important parts of prudence. Poggio wrote: “He had incredible experience (usus) and practice of many things.

²⁰² Poggio Bracciolini to Filippo Maria Visconti (28 July 1438), in *Epistolarum liber*, in his *Opera Omnia*, I, pp. 295-390, p. 333: Semper enim in illa [sc. republica florentina] consilii gravitas fuit, integritas, continentia, minima alieni ambitio, sui diligens custodia, amicorum caritas, profugium omnium bonorum., tum artium liberalium studia, talis denique moderatio, ut nihil potius quam Italiae pacem dare, afflictos tueri, superbos cohibere, & fidem omni auro utilitatique anteferre, sanctissimus senatus vester putetur cogitasse. These moral virtues also appear in the funeral oration for Cardinal Franciscus.

²⁰³ Jacques Lefèvre d’Etaples, *Artificialis introductio per modum epitomatis in decem libros Ethicorum Aristotelis* ([Paris, 1506]).

²⁰⁴ Donato Acciaiuoli, *Aristotelis ... Ethicorum ad Nicomachum libri decem. Ioanne Argyropylo ... interprete, ... Cum Donati Acciaiuoli ... commentarijs* (Lyon, 1559), p. 601: quia veritas in rebus agendis spectatur ex factis vitaeque, non ex verbis, cum in ipsis robor maneat, ac firmitas: erudire autem nos voluit,

The first is that in his commentary Acciaiuoli explicitly contrasted the method of practical science with the method of speculative science. Albert did this implicitly, but Acciaiuoli noted explicitly that while the method of the speculative sciences is demonstration and argument, the method of practical science is to compare words with deeds. This is how truth (*veritas*) and certainty (*fides*) are arrived at in practical science. With Acciaiuoli it becomes clearer than ever before then, that thanks to the contrast with speculative science, paying attention to behavior is *the* method of practical science, not simply a method, or an ancillary discipline.

Acciaiuoli's passage shows that realism was precisely not scientific, since for him, as with the other Aristotelian commentators, a focus on deeds rather than words separated out the practical sciences from the theoretical or natural sciences. This underlines the key point here—what seems scientific to us, namely an emphasis on observable behavior, is precisely what made politics and ethics unscientific to them. Therefore, Renaissance realism should not be considered straightforwardly as a milestone in the history of political science.

The second development is the explicit connection between this passage and the teachings of Christianity. Certainly the explanations offered by Albert and Thomas were

& tradere, quomodo voces has perpendere debemus, atque ipsas esse comportandas ad opera, vitamque eorum, qui illas ediderunt, & cum ipsa conferendas, cumque inventae[?] fuerint convenire ipsis, tunc esse recipiendas: cum vero discreparint, esse abigendas, atque inanes, fablasque putandas, exempli causa, siquis foret, qui in omni sua vita commendaret castitatem, esseque illam custodiendam affirmaret: idem autem luxuriae pareret, quid ille faceret, non quod loqueretur, animadvertendum. Vettori follows Acciaiuoli:

because truth is observed in actions, in deeds and life, not in words, since it is in these things that its kernel and strength abides. He wanted to teach us however and to instruct us however how we ought to consider these words, and he says that they ought to be compared to the deeds and the life of those who said them and when they correspond to it, and when ..then they should be accepted, but when they are different, they should be rejected, and are inane, and believing stories, for example, if there would be anyone, who in his whole life who guarded his chastity and affirmed that it should be guarded. Likewise, it should be noticed what he who yields to luxury does, not what he says.

consistent with Christian doctrine, but Acciaiuoli identified the Aristotelian dictum with Christian doctrine itself. Noting that teachers ought to act as they teach, Acciaiuoli brought in several passages from the New Testament to this end, notably 1 Corinthians 9:27, “No, I beat my body and make it my slave so that after I have preached to others, I myself will not be disqualified for the prize.”²⁰⁵

Despite the common notion of Christianity as a religion concerned with faith and not works, Acciaiuoli’s “behaviorism” here fits with the Christian temperament of the late fifteenth century, which valued practice and the imitation of Jesus’s life, while, like Jesus himself, reviling hypocrisy. So, we read in the Bible of this movement, the *Imitatio Christi*, a devotional work on personal piety and conduct: “What will it avail thee to dispute profoundly of the Trinity, if thou be void of humility, and art thereby displeasing to the Trinity? High words surely make a Man neither holy nor just, but a virtuous life maketh him dear to God.” There is an emphasis here simultaneously on action and on avoiding hypocrisy.²⁰⁶

²⁰⁵ Acciaiuoli, *In Ethicorum*, p. 890: Nam veritas circa ea quae agimus consistit in operibus, & circa ea quae speculamur in rationibus & demonstrationibus & scientiis . quare tunc putatur esse credendum sentiis & sermonibus in rebus agendis cum opera eorum qui tales sententias afferunt illis sentiis & sermonibus in rebus agendis cum opera eorum qui tales sententias afferunt illis sentiis respondent: quod si vita & opera discrepant a sentiis & verbis, existimandae sunt tales sententiae inanes quoad eos qui illas proferunt. Oportet enim non solum docere, sed etiam facere ea quae doceas, “Castigo corpus meum,” inquit Apostolus, “et in servitutem redigo ne forte cum aliis praedicaverim ipse reprobus efficiar” [1 Corinthians 9:27] ...quare in iis quorum finis principalis non est cognitio, sed actio, cum opera cum sentiis concordant, tunc adhibetur fides. English translation, NIV.

²⁰⁶ Massaut, *Clichtove*. On Petrarch’s “existentialist” philosophy of his *De sui ipsius et multorum ignorantia*., see Massaut, *Clichtove*, pp. 134-5

Acciaiuoli's commentary was widely circulated in Florence and Machiavelli's father, Bernardo, even considered purchasing a copy.²⁰⁷ Whether or not young Niccolò had access to it, his own writing echoed the same theme. His realism—his insistence that we judge a person by his deeds rather than his words—is also closely connected to a suspicion of hypocrisy, especially among the fraternal orders. This is nowhere more evident than in a series of letters between Machiavelli and Francesco Guicciardini over the appointment of a preacher in Florence. Machiavelli had been commissioned by the wool guild to find a preacher for Lent for the metropolitan church of Florence.²⁰⁸ The letters are Machiavelli at his best, or his worst, with Machiavelli reporting that he received Guicciardini's first letter about the matter when he was on the toilet speculating about the best sort of preacher for Florence. Machiavelli decided that the best sort of preacher for Florence is the worst sort of preacher. This is despite what the people of Florence might think about it. For, Machiavelli wrote,

they would like a preacher who would show them the road to Paradise, and I would like to find one who could teach them the way to go to the house of the Devil; they would like, besides, that he should be a man prudent, blameless and true; and I should like to find one crazier than Ponzo, more crafty than Fra Girolamo, more of a hypocrite than Frate Alberto, because it would seem to me a fine thing, worthy of the goodness of these times, that all we have experienced in many friars should be experienced in one, because I believe the true way of going to Paradise would be to learn the road to hell in order to avoid it.²⁰⁹

²⁰⁷ Viroli, *Machiavelli*, p. 47. Ricordo come adi 20 di Febraio 1481 io ebbi da Piero Gualterotti, e per lui da Bartolomeo Tucci, cartolaio, il Commento di Donato Acciaiuoli sopra l'Etica d'Ari[stotele] in forma e sciolto, a vedere e comprarlo se mi piacesse. p. 141.

²⁰⁸ *The Historical, Political, and Diplomatic Writings of Niccolò Machiavelli*, trans. Christian E. Detmold (4 vols., Boston, 1882), p. 317n.

²⁰⁹ Machiavelli to Guicciardini (17 May 1521) in Niccolò Machiavelli, *The chief works and others*, trans. Allan Gilbert (3 vols., Durham, 1989), II, p. 972.

As the letter goes on, Machiavelli continues to contrast appearances with reality. So, he wrote that he is up to challenging the Carpigiani in lying, since he is an expert in it himself, and he suggests that he could accurately tell that someone was a rich man by his appearance. In the case of the preacher on the one hand, Machiavelli is clearly joking: he does not think much of friars so there is not much harm in choosing the worst. On the other hand, his first defenders, such as the sometime Jesuit Kaspar Schoppe, up to the present, have argued that this is in fact Machiavelli's method—he sincerely wants to show us the worst in man so that we may avoid it.

Regardless, what we are interested in the moment is Machiavelli's perspective on hypocrisy. In the letter, Machiavelli wrote that he wanted the new preacher to be more of a hypocrite than Frate Alberto, a character from Boccaccio's *Decameron*, who is not only a hypocrite, but excellent in seeming good and doing ill, the Machiavellian specialty.²¹⁰

In the story, Frate Alberto convinced a witless, but beautiful, young woman that the Angel Gabriel wanted to lie with her because of her heavenly beauty, but that he would have to take human shape to do so. Frate Alberto begged her to let the Angel take his shape, for as long as the Angel used his body, his soul would be in heaven. The woman agreed, and the two, under this pretense, have an extended affair. Eventually Alberto is unmasked by some gossips and a helpful fellow citizen of Venice. Boccaccio (1313-1375) wrote that this story of Frate Alberto is an exemplification of the proverb, "A wicked man who is thought to be good can do evil and yet not have it believed."²¹¹

²¹⁰ Boccaccio, *Decameron*, trans. Richard Aldington (Garden City and New York, 1930), 4.2.

²¹¹ Boccaccio, *Decameron*, p. 217.

The friars are thought to be good because of how they look as well as what they say—their loud denunciations of evildoing and their promises of paradise.

Alberto, though unsuccessful in the end, is a perfectly Machiavellian figure, reminiscent of Callimaco from his *Mandragola*. It might be objected that this reduces Machiavelli's realism to a folk wisdom, to the proverbial clash between appearances and reality and the anticlerical suspicion of the lay mentality. But rather than reducing Machiavelli, this shows how much his realism was rooted in tradition, how it was already present in this middle ages in this folk, proverbial sense and in scholastic philosophy. After all, as we have seen, Poggio's phrase which Machiavelli so loves come from a fable of just this variety. Machiavelli is earthy and realistic in this sense.

This spirit need not only be found outside of the church, and as we have seen in Acciaiuoli and the tradition of the *Imitatio Christi*, those with a Christian purpose wished that clerics would live up to their words as much as those with an anticlerical, or even pagan cast. Again, if realism is understood in this sense, in the sense of being the opposite of hypocrisy, then it is this realism that was appreciated in the defenders of Machiavelli in the age of Trent. For Kaspar Schoppe and others Machiavelli is not an opponent of the church, but a critic of the Church's excesses, who would have written quite differently had he lived to see the reformation of the Church due to Trent.

Maurizio Viroli has argued that Machiavelli's suspicion of the words of princes came from his scrutiny of contemporary leaders who were expert in saying one thing and doing another, such as Cesare Borgia, his father Pope Alexander VI, and King Ferdinand of Spain.²¹² While these are no doubt good examples of the difference between word and

²¹² Viroli, *Machiavelli*, p. 67.

action, they must have confirmed Machiavelli's suspicion rather than incited it, since as we have seen, the suspicion was widespread, to the point of being a cliché.

In one of the key passages in the historiography of reason of state, in Francesco Guicciardini's *Dialogue on the Government of Florence*, written between 1521 and 1524, Bernardo del Nero argued that speaking of things in the manner of reason of state, such as advocating violence and cruelty, is necessarily unchristian. It is also necessarily realistic, del Nero added, "since anyone who wants to live according to God's will can ill afford not to remove himself totally from the affairs of this world, and it is difficult to live in this world without offending God. I did so," and here he presumably means spoke in this way, and offended God, "in order to talk realistically about things as they are in fact." The model Christian is the unrealistic man, and, we can imagine from del Nero's comments, a monk in a contemplative order.²¹³

The realism here is the same realism as in chapter fifteen of the *Prince*, the realism that some wicked means must be used to achieve some good ends. Machiavelli and Guicciardini would agree that one cannot be a perfect Christian and live in this world. One must be a hypocrite, like Frate Alberto, though not as flamboyant. The task for the realist then as a student of others is to see through the hypocrisy of those who appear completely good, and for the realist, from the standpoint of the agent, not to worry if one cannot be completely good.

These two concerns—the thought that one must adapt oneself to the circumstances and that sometimes two different policies can both be successful—were combined in an undated letter of Machiavelli to Soderini. In the letter Machiavelli wrote

²¹³ Guicciardini, *Dialogue*. Cited in Viroli, *Machiavelli*, p. 50.

that the reason two different policies can both be successful is that both policies happen to be fitting for their particular contexts. In other words, the contexts really are different, and so though it seems that the policies are contraries they are not, since the policies cannot be generalized to cover all circumstances. Rather, Machiavelli wrote, the man who could adapt himself to all circumstances would be continuously successful. Again, the problem is that, as in the passage in the *Discourses*, Machiavelli did not believe that such men existed.²¹⁴

Epilogue

The themes of this chapter—idealism, realism, empiricism, the difficulty of attaining political knowledge—were passed on to northern Europe through the teaching of Piero Vettori. Vettori (1499-1586) was one of the most important teachers of politics in the sixteenth century. He taught Johannes Caselius, who was the founder of the Helmstedt school of politics, may have taught Justus Lipsius, and Jacopo Corbinelli (fl. 1568-1580).²¹⁵ Besides teaching future professors Vettori educated many minor nobles and future rulers of the North, as attested to in a series of letters between him, his

²¹⁴ Cited in Butterfield, *Statecraft of Machiavelli*, pp. 58-59. Butterfield does not take this to be a general view of Machiavelli's. but a reluctant admission and retreat to a position closer to Guicciardini's. *Ghiribizzi scripti in Perugia al Soderino*

²¹⁵ One biographer noted that Lipsius attended the lectures of Piero Vettori among others, and in a letter to Lipsius, it is implied that Lipsius recommended Vettori's editions of Aristotle to an acquaintance. Ianus Nicius Erythraeus, *Pinacotheca Imaginum illustrium* (Leipzig, 1692; 1st edition, Amsterdam, 1643 [?]), III, p. 4: [E]tenim, Variarum Lectionum Librum, Cardinali Granvellano dicatum, edidit. qui liber, Cardinali in primis operam dante, latum illi aditum in Peretani domum aperuit, ac multas simul commoditates objecit...ut Carolum Sigonium, Petrum Victorium, Hieronymum Mercurialem, omnis eruditionis doctrinaeque principes. "And indeed he edited the book of emendations which he dedicated to Cardinal Granvelle. The book, giving attention chiefly to the Cardinal, opened wide his house in Pereta, and at the same time presented many advantages...for instance, ... to behold, hear, and speak with Carlo Sigonio, Piero Vettori, Jerome Mercurial, princes of all learning and theory." For the recommendation of Vettori: Colvius to Lipsius, 24 March 1584, Paris, *Iusti Lipsi Epistolae*, ed. M.A. Nauwelaerts (Brussels, 1983), vol. 2, p. 79. Lipsius implied that Corbinelli was a student in a letter that Lipsius wrote to Corbinelli, where he noted that he had heard great things about him from Vettori. Lipsius to Jacopo de Corbinelli, April 1588, Leiden, *Iusti Lipsi Epistolae*, vol. 2, p. 2.

students, and their patrons.²¹⁶ Vettori is in essence the link between the Italian political thought of the sixteenth century and the world of seventeenth century political thought in Northern and Western Europe. Vettori was a professor of moral philosophy in Florence, a floating position. Vettori worked on his translations and commentaries on the *Politics* from 1569 to 1576 and the *Ethics* from 1579 to 1584.²¹⁷

Vettori harmonized the new Italian thinking on politics with the older Aristotelian and Ciceronian literature. It has been said that Vettori embodied a new absolutism or statism under Duke Cosimo in Florence, but this interpretation only makes sense against the background of a very republican reading of Machiavelli and Guicciardini.²¹⁸ Otherwise, Vettori appears to share their values and insert them along with a Ciceronianism into his Aristotle commentaries.

While this blend of Italian political thought, Ciceronianism, and Aristotelianism is evident throughout his commentaries, there are a number of moments which are of particular importance for our themes. So, for example, Vettori identified Aristotelian *phronēsis* with Ciceronian prudence in his commentary on the *Politics*. The *phronimos*

²¹⁶ Consider this letter of 1563 from Johann Albrecht I, (1525-1576) (1.135), the Duke of Mecklenburg, to Vettori: “How much we have to thank you, and we ask from you, moreover, that if you should publish anything similar, that you should not be reluctant to communicate with us. You obliged us greatly by sending back to us Johannes Caselius with the best mores and shaped by the arts, and we ask vehemently that you do the same with Bernard Burgenhagius, Joachim Hanus and Samuel Fabricius. Of these, Burgenhagius and Hanus were born to most noble parents, to our to our advisers; Samuel is our citizen, who we have sponsored out of our own funds for more than three years in Italy: We hope that all of them, with your work, will be returned to us as we wish and we hope, that is, good, and honest, and adorned with the knowledge of the best arts.”

²¹⁷ Piero Vettori, *Commentarii in X. libros Aristotelis de moribus ad Nicomachum* (Florence, 1584).

²¹⁸ Rudolf von Albertini, *Das florentinische Staatsbewußtsein* (Bern, 1955), pp. 282-288.

on Vettori's view was captured by Cicero's portrait of Lucullus in the *Academica prior*, which is also known as *Lucullus*.²¹⁹

More to the point, Vettori came out for the rule of experts in a passage in his commentary on the *Politics*. Vettori is commenting on a passage in which Aristotle is specifying the political institutions of democracy, including universal candidacy for magistracies, the lack of property qualifications for office, term limits and, "election by lot either to all magistracies or to all that do not need experience and skill."²²⁰ Vettori is alarmed by Aristotle's implication that there are some "popular states" in which *all* of the magistracies are assigned by lot. "Indeed these, which cannot be well ruled, unless by experts of those things who clearly do much work in this field. And they are faulty, since they commit things of such weight to beginners in those things."

This comment can be read in a number of different lights. The anti-democratic quality of it is unmistakable, and it is this sort of comment which has led to his classification as a proponent of the new statism of the seventeenth century. But as we have seen in the chapter calls for expert knowledge predate the modern state by centuries. What is more telling is the impress of Guicciardini or more general currents similar to Guicciardini on Vettori's writings. Vettori has learned to value experience as a crucial component of political knowledge. In this regard, Vettori did not go as far as Guicciardini, since he valued theory as well as experience, but the importance to which a

²¹⁹ Cicero, *Academica Prior*, 1.2.15: Itaque cum totum iter et navigationem consumpsisset partim in percontando a peritis, partim in rebus gestis legendis, in Asiam factus imperator venit...Habuit enim divinam quandam memoriam rerum, verborum maiorem Hortensius. Piero Vettori, *Commentarii in VIII libros Aristotelis De Optimo Statu Civitatis* (Florence, 1576), p. 291, commenting on *Politics* 4.1.5, 1289a12.

²²⁰ Aristotle, *Politics*, bk. 6, 1317b.

leading exponent of Aristotle is not attributing to personal experience shows that a real change took place over the course of the late fifteenth and sixteenth century.

Vettori took the famous passage of Aristotle in the *Nicomachean Ethics* on the importance of particular knowledge in prudence as an opportunity to discuss the contributions of theory and experience to practical knowledge. As in many commentaries, it is difficult to isolate Vettori's opinion clearly from the exposition of the text, but it seems that he takes both experience and theory to be necessary. Both Aristotle and Cicero thought so according to Vettori, but out of the two, Aristotle thought experience was more necessary for practical knowledge and Cicero thought that theory was more necessary. The twin requirements of theory and experience were then insisted upon by Vettori's students, such as Caselius and Lipsius, so we can imagine that this is something which was stressed by Vettori orally as well.²²¹

²²¹ Vettori, *Commentarii ad Nicomachvm*, p. 340: Est hoc aperte corollarium” affert autem causam eius, quod perturbabat multos, voluitque ipsis eripere hunc errorem, qui est fructus, quem hinc, praeter ea, quae docebat, capere possunt, qui legunt: illud autem erat, quod videbant nonnullos, qui non essent instructi doctrina ulla, magis idoneos esse ad res gerendas, & munus suum implendum: in aliis autem multis hoc usu venire inquit illis, qui empirici vocantur: exemplo enim utitur eorum, qui medentur aegrotis, cuius rei duplex est via; quidam enim eorum artem didicerunt & praeceptis veterum medicorum imbuti sunt; alii usum tantum habent: & aliquid valent in morbis depellendis, quia periculum saepe fecerunt earum rerum, & experti sunt ipsas: inquit igitur, hoc ostendere studens; si enim didicerit quispiam, sciatque carnes leves facile cocoqui, salubresque esse: ignoret tamen, quae sint leves, nunquam sanabit aegrotum, sed hoc praestabit, qui sine illa communi intelligentia, cognoverit, avium leves carnes esse tales; ac commodat autem hoc ei, quod in manu nunc habet: aitque, prudentia autem incumbit in res agendas: habetque hoc studium; quare inquit, opus est ambas has propositiones tenere, quod si alteram tantum percipere quis potest, magis prodest ea quae particularis est. Adiungit in rebus etiam humanis extare quandam, quae vim, & speciem habet architectonicae, idest eius quae praecipiat, & mandat, quid faciendum sit: illa autem est propositio universalis, quae tamquam aliquo modo nihil moliatur, sed singularis hoc & efficit, ut illic fabri. Similitudinis autem non nihil cum hoc habet locus ille, quem attigit M. Cicero Pro Archia: ipse namque ponit quaestione, statimque eam dissolvit; sed etiam adiungit, si ambo illa coniugantur, tunc melius perfectiusque rem actum iri. Verba eius sunt. “quaeret quispiam: 'quid? illi ipsi summi viri quorum virtutes litteris proditae sunt istane doctrina quam tu laudibus effers eruditi fuerunt?' difficile est hoc de omnibus confirmare:” & quae sequuntur, ne totam sententiam, satis longam huc transferam, praesertim cum in claro, & illustri loco posita sit. Discrimen autem esse videtur, quod M. Cicero putat, eruditum virum, & qui praecepta cognorit, maiorem vim habere, ad rem agendam, quam illum, qui usu & periculo facto multarum rerum didicerit, & valde idoneus rebus gerendis factus sit.

Was this emphasis on both experience and theory more realistic? More scientific? Vettori is clearly not advocating anything scientific here, and though in keeping with Aristotle's passage, he identified experience with the old empiricist sect of medicine, the experience he is concerned with is clearly personal experience, especially of important affairs. There is a certain realism here in the sense that theory is insufficient for practical knowledge. This is not the realism of *realpolitik*, but the opposition between the ideal and the universal on the one hand and the real application and particular on the other is obvious.

What does this tell us about the turn to experience, even if this is unscientific personal experience? Given Vettori's sympathy with the rule of experts and his role in educating the ruling elite, it is fair to conclude that Vettori, like Guicciardini, endorsed experience more on account of his political views than on account of any scientific project. Again, there is no indication that he saw *realpolitik* and experience as necessary complements. His students—understood in a broad sense—were Machiavellian to different degrees: Corbinelli more so, Caselius, less. The more that is understood about the reception of Machiavelli, the clearer it is that the late sixteenth century saw the key elements of Italian political thought as quintessentially Italian and separable. The advocates of a science of politics, whom we shall discuss shortly were more in line with Caselius and opponents of the *realpolitik* elements of Italian political thought. If Italian political thought had a contribution to make to the future science of politics in the next century it was not the “relative standard of value” of *realpolitik* and value-free social science, but its emphasis on experience, however unscientific in its original use, and its attempts to isolate maxims or aphorisms that described relationships between means and

ends. Both of these would be criticized by the proponents of a science of politics as unscientific, but they viewed them as an unscientific version of science—as embodying a pure empiricism without theory or principle.

Chapter 3. Demonstration and the ideal of a science of politics

Modern political science has its beginnings in the application of Aristotle's standard of demonstrative science to political reflection in Germany. As we have seen in the first part of this study, the commentators on Aristotle's *Politics* in the thirteenth century thought that the demonstrative method could be applied to politics, but only to the relationship between universal propositions about politics, not to the application of those principles to particular circumstances. Their political science, as we have seen, was not inductive though it presented examples from the past or present to illustrate concepts or definitions. The fact that such a science of propositions was susceptible of demonstration was not at the center of the thirteenth century concerns; they mention it while arguing that there can be a university discipline of politics, but their central concern is not to prove that conclusions about politics have a certain epistemological status. Their concern was rather to establish the possibility of a theoretical version of a practical science.

Modern political science on the other hand is born from a concern precisely about the epistemological certainty of its conclusions. The reason for this is that modern political science was invented for political reasons. Its scientific status was asserted in the sixteenth century as one means among many of addressing the religious violence of the new age. It should be stated up front that this was solely its impetus, its first push, which took place in the age of the late Renaissance and Reformation. Though as we shall see in the next chapter there was more continuity between Renaissance and Reformation political science in viewing political science in astrological terms, Melanchthon's proposal of an ideal of a demonstrative science of politics was very different than the

conception political knowledge in Renaissance Florence. This may be due to the fact that the Florentines were concerned with a very different kind of politics than Melanchthon. Florentine politics in the age of Machiavelli and Guicciardini as the centuries preceding them was a politics of great families and patronage, not of ideas and ideology. In the days of Savonarola this was perhaps less true, and Machiavelli to a limited extent understood the force of Christianity as an idea as enfeebling the vigor of the Italians. Generally speaking, Machiavelli considered Christianity in terms of anti-clericalism not as a conflict of ideas. Melanchthon on the other hand was faced with a politics of ideas. Religious ideas were the motor of politics in Germany and thus his view of political science, which had a strong political dimension, was aimed at resolving the conflict of ideas, rather than defining fitness for office or the best means of rule as in the Florentine setting.

While the political concerns of the Reformation and the Counterreformation would be preserved in the literature of the modern school of natural law, they would be all but forgotten in the literature of empirical political science. In fact, the literature of empirical political science would dilute the scientific standard championed by the proponents of a demonstrative political science in the sixteenth century. The self-conscious application of demonstration and a scientific standard to politics contributed to the history of political science by bringing the question of the possibility of a political science to the foreground, but ultimately the initial version of the ideal was too strict for even its first proponent, Philip Melanchthon, to properly implement it in his works on politics. By the end of the sixteenth century the strict standard of demonstrative reasoning would be abandoned as too strict to be applicable to politics. It was found that it had to be

heavily modified to fit the variability of political behavior. Nevertheless, the stricter ideal of a demonstrative politics in its original sense would live on, along with the political concerns which motivated its application to politics in the first place, in the modern school of natural law.

The application of demonstration to human affairs was especially to be found among adherents of the peripatetic philosophy in the sixteenth and seventeenth centuries.²²² The story then of political science in this period is principally the story of Aristotelianism.²²³ While by the end of the sixteenth century there would be other approaches to politics at the universities, such as the commentaries on Tacitus, at the beginning of the sixteenth century, politics was still only taught in the universities through the commentaries on Aristotle's *Politics*. Outside of the university, political literature included works of mirrors of princes, histories, biographies and eulogies of princes, polemical literature, and the reports of ambassadors. Of all this literature, the

²²² This is of course in some sense trivially true, since ἀπόδειξις refers to a specific doctrine of Aristotle's in the Posterior Analytics. But the story is more complex than this, since Aristotle in fact denied that such a science of human affairs was possible, and later philosophers, such as Pufendorf, seeking certainty in human affairs would look on this denial as a mistake of the peripatetics.

²²³ The story of Renaissance Aristotelianism has been told several times, though not with an eye specifically trained on this issue of demonstration in human affairs. Much of the story of sixteenth and seventeenth century Aristotelianism is told piecemeal by Pierre Bayle, *Dictionnaire historique et critique* (Paris, 1820 [Rotterdam, 1697]) and there is some important information in Thomas Pope Blount, *Censura celebriorum authorum* (London, 1690). A more continuous narrative is presented in Ioannis Lavnoii, *De varia Aristotelis in Academia Parisiensi fortuna, et Ioannis Ionsii Holsati De historia Peripatetica dissertatio. Io. Hermannvs Ab Eslvvich edidit, et De varia Aristotelis in scholis Protestantium fortuna schediasma praemisit, adiecto indice necessario*. (Wittenberg, 1720). Just as a point of interest, Elswich was a student of Conring's and wrote his dissertation on eminent domain. Then, Johann Jakob Brucker, *Kurtze fragen aus der philosophischen historie* (Ulm, 1731-1736), vol. VI. Almost identical material appears in Latin in his *Historia critica philosophiae* (Leipzig, 1766-67 [1742-4]). An extremely abbreviated version of Brucker appears in English as William Enfield, *The history of philosophy, from the earliest times to the beginning of the present century; drawn up from Brucker's Historia critica philosophiae* (London, 1791), but the reader should be aware that it omits sentences and paragraphs without notice. Peter Petersen, *Geschichte der aristotelischen Philosophie im protestantischen Deutschland* (Stuttgart-Bad Cannstatt, 1964).

only claims for a science of politics were made in connection with the commentaries on Aristotle's *Politics*.

Early modern Aristotelians were Aristotelians principally because they thought that Aristotle's philosophy was the best fit for Christianity while at the same time providing a framework and series of textbooks for the university curriculum. This is not to say that there was an effortless endorsement of Aristotelianism at the Protestant universities. All of the pagan philosophies were in one respect or another difficult to square with Christianity, and Aristotelianism was no exception. Aristotle's views on the immortality of the soul, for instance, had come under intense scrutiny for centuries because it clashed with the Christian teaching on the afterlife and resurrection. Luther attacked the Aristotelian curriculum of the medieval universities early on in the Reformation, but his position gradually gave way to an acceptance of Aristotelianism as the basis of the Protestant universities.²²⁴ The other leading philosophies of antiquity, Stoicism and Epicureanism, both remained problematic. Stoicism argued for a strict version of fate²²⁵ which opposed the Christian teaching on free will and for *apatheia*, or freedom from the passions, which precluded the Christian passion of love.²²⁶ The hedonism of Epicureanism was said by the peripatetic Christians to have misunderstood

²²⁴ Petersen, *aristotelischen Philosophie im protestantischen Deutschland*.

²²⁵ Philip Melancthon, "On the Soul" (1553) in Philip Melancthon, *A Melancthon reader*, trans. Ralph Keen (New York, 1988), p. 272. *Liber de Anima*, CR 13, pp. 120-87. Philip Melancthon, *Corpus Reformatorum Philippi Melanthonis opera quae supersunt omnia*, ed. Karl Gottlieb Bretschneider and Heinrich Ernst Bindseil (28 vols., 1834-60; reprint, New York, 1963) (hereafter cited as CR).

²²⁶ Philip Melancthon, "Summary of Ethics" (1532) in Keen, p. 216. *Epitome Ethices* in *Die älteste Fassung, von Melancthons Ethik*, ed. Hermann Heineck (Berlin, 1893).

the proper end of man by positing a kind of pleasure instead of virtue as the highest good.²²⁷

Melanchthon and demonstration

The leading exponent of Aristotelianism in Germany was the religious reformer and Wittenberg professor Philip Melanchthon (1497-1560).²²⁸ Melanchthon was a close friend of Martin Luther's and is best known today for systematizing Lutheran theology in his *Loci Communes* of 1521 and the Augsburg Confession of 1530. Melanchthon himself received an excellent education in classical literature and was exposed to the new humanist teaching of Rodolphus Agricola, who was a professor of classical literature at Heidelberg, and who emphasized the importance of the study of rhetoric and method. Melanchthon became the professor of Greek at Wittenberg, the university where Martin Luther was a professor of Theology and the birthplace of the Protestant Reformation.

As a figure in the history of political science, Melanchthon is more important for his articulation of the ideal of applying the Aristotelian ideal of a science to politics than for an actual example of the application of the demonstrative ideal in practice. On the one hand, no one more clearly articulated the ambitions for a science of politics and the

²²⁷ Samuel Rachel discussed the theological implications of Aristotle's *Ethics* in his preface to his edition of the *Ethics*, with Denys Lambin's Latin translation. *Aristotelis Ethicorum ad Nicomachum libri decem*, ed. Samuel Rachel (Helmstedt, 1660).

²²⁸ Though some recent scholarship has suggested that Melanchthon may have been inspired by Platonic ideas, his philosophical work and teaching mostly followed Aristotle's works. There is some reason to believe that Melanchthon's concept of the natural principles (*notitiae naturales*) stems from a neoplatonic understanding of the relationship between the divine mind and the human mind. According to this doctrine, the divine mind implanted the human mind with fixed principles at the moment of creation, including mathematical figures and numbers, but also principles of ethics. Melanchthon may have learned about Platonism from his friend Simon Grynaeus, who published an edition of Plato's works. A copy of this edition with Melanchthon's marginal notes exists. It is not clear however what the connection is between demonstration, an Aristotelian doctrine, with these natural notions. Günter Frank, "Melanchthon and the tradition of Neoplatonism," in *Religious confessions and the sciences in the sixteenth century*, eds. Jürgen Helm and Annette Winkelmann (Leiden, 2001), pp. 3-18.

reasons such a science was necessary. This was apparent to Thomasius and Brucker and many other historians of political science and natural law whom have been discussed in the introduction to this study. On the other hand, a close reading of Melanchthon's actual works on politics, his commentary on Aristotle's *Politics*, show it to be little more than a loosely veiled polemic against the claims of the peasants and the Anabaptists during the 1520s. Though the polemical arguments are integrated into the systematic structure of Aristotle's work, the claims that Melanchthon makes about the importance of applying the scientific method of demonstration and the appeal to basic principles to politics in his prefaces and works on method are barely fulfilled.

Melanchthon then is the herald of the demonstrative science of politics without actually offering a proper example of it. He played a crucial role in the development of political science because his program of a demonstrative political science, even a geometric political science, and of the importance of clear methodology for politics was widely distributed in the sixteenth century. As the "teacher of Germany," the *Praeceptor Germaniae*, his works were widely taught at German universities, and very quickly in secondary schools and universities throughout Europe. Moreover, the political reasons that Melanchthon gave for developing such a science of politics, the idea that a demonstrative science of politics could serve as a solution to the problems of civil unrest, became a standard theme in the development of the science of natural law, if not of empirical political science.

Melanchthon claimed that demonstration could be applied to politics from at least 1532 onwards and repeated his claim in the widely read (and taught) *Erotemata dialectices* of 1547. Though Melanchthon made no mention of demonstration in his very

first work on dialectic, he discussed it and its connection to human affairs in the second *Dialectica* (1531), which may have already been in draft by 1528.²²⁹ “Demonstrations proceed from fixed principles that are found within us, impressed there by God, and are similar to the common notions about judging according to nature and civil mores.”²³⁰

Melanchthon identified these common principles with those of Euclid (*κοινὸί ἔννοιαι*), and saw in them a basis for certainty and security in society. Everything certain is either based on these principles or is learned from experience, such as the fact that fire burns.

What is crucial for our purposes is that Melanchthon stated that “demonstrations apply not only to geometry and arithmetic but in all arts, such as moral philosophy.”²³¹

He gave the following example in law:

Crimes which disturb the society of humankind are forbidden.
Robbery and piracy and similar actions disturb the society of humankind.
Therefore Robbery and piracy and similar actions are forbidden.

This simple piece of logic is of interest as an example of Melanchthon’s methodology. “The major premise is a principle,” Melanchthon noted, “the minor has the

²²⁹ Philip Melanchthon, *Compendiaria dialectices ratio* (Leipzig, 1520), *Dialectica, iam recens aucta ab authore* (Paris, 1532; 1st ed. *De dialectica libri quattuor*, Wittenberg, 1531), and *Erotemata dialectices* (Leipzig, 1559 [1547]). The possibility of a 1528 draft is suggested by *De dialectica libri quattuor*, (Wittenberg, 1531), fol. A3r. Cited in Sachiko Kusukawa, “Vinculum concordiae: Lutheran method by Philip Melanchthon,” in *Method and order in Renaissance philosophy of nature*, eds. Daniel A. Di Liscia, Eckhard Kessler, Charlotte Methuen (Aldershot, 1997), pp. 337-354, p. 342. This section on Melanchthon is heavily indebted to Kusukawa’s work on Melanchthon, in particular this essay and her book length study of Melanchthon’s natural philosophy, *The transformation of natural philosophy: the case of Philip Melanchthon* (Cambridge, 1995).

²³⁰ *Dialectica, iam recens aucta*, p. 57b: Sunt enim principia, quaedam communes sententias nobiscum natae. Impressit enim Deus animis nostris quasdam notitias, quae sunt velut regula in iudicando, de natura, & de moribus civilibus: cuiusmodi sunt.

²³¹ *Dialectica, iam recens aucta*, p. 58b: Nec tantum in Arithmetica & Geometria demonstrationes extant: sunt in omnibus artibus aliquae, ut in Philosophia morali.

evidence of experience, therefore both are most certain.”²³² So in his methodological writings, Melanchthon wrote that moral and political thinking proceed thus: First a general principle is considered, then the principle is applied in the light of experience, and finally conclusions are drawn.²³³

There are three reasons that Melanchthon applied demonstration to politics. First, he thought of demonstration as a counterweight to a new skepticism. Second, Melanchthon upheld the ideal of demonstration throughout his scientific work not only in politics. And finally, third, he thought that there was a pressing need to make his views on politics known, and to make them known as the only views supported by logic, natural reason, and political science.

The threat of skepticism was clearly an important motive for Melanchthon’s insistence on certainty.²³⁴ The basis of religious knowledge was an important aspect of the Reformation. Luther denied the position of the Catholic church that the Pope and church councils could determine religious truth. Rather each person could learn for themselves what was religious truth on the basis of scripture and conscience. Luther’s certainty was based on a subjective certainty of conscience. This debate over the source

²³² *Dialectica, iam recens aucta*, p. 58b: Maior est principium, Minor testem habet experientiam: utaque igitur certissima est.

²³³ Melanchthon expressed substantively the same view in his *Erotemata Dialectices* of 1547, expanding the discussion and noting that for principles to be used in demonstration they must be known from nature or from universal experience. Melanchthon, *Erotemata dialectices*, p. 43: Haec explicatio vera est, & sciunt iuniores, doctrinam illam legum, non ut multi putant, tantum esse potentum arbitria, sine veris rationibus seu demonstrationibus. Sed ut medicorum doctrina partim scientia est, & demonstrationes habet, partim habet praecepta probabilia: Ita legum doctrina partim vere scientia est, quia exordium demonstrationes habet, partim habet probabilia praecepta.

²³⁴ Charles Schmitt, *Cicero scepticus* (The Hague, 1972), pp. 58-64. Richard Tuck, *Philosophy and Government* (Cambridge, 1993), “Grotius, Carneades, and Hobbes,” *Grotiana* 4 (1983): 43-62.

of religious truth may have inspired greater interest in the classical theories of skepticism.²³⁵

Erasmus, in his attack on Luther in *On free choice (De libero arbitrio)* of 1524, proposed a kind of skeptical argument for remaining in the Catholic church. Erasmus wrote that religious matters were so controversial and mysterious that he preferred to adopt the position of the Academic skeptics and suspend judgment. So Erasmus concluded that in the face of uncertainty, one should then just adopt the traditional views of the church. Luther responded that a Christian could not be a skeptic; a Christian must be certain of the truth of Christianity.²³⁶

Melanchthon was concerned to prove that there was no place for the Academic suspension of judgment in either religious or secular matters. Efforts to locate the exact source of Luther and Melanchthon's knowledge of classical skepticism have been unsuccessful. Luther had read Cicero's *De Natura Deorum*, and there was a copy of Cicero's *Academica* in the Wittenberg library, but there is no evidence of their having read it.²³⁷ Melanchthon's references to classical skepticism are very general and do not show a close engagement with the texts. What is clear is that Melanchthon was concerned to establish certainty. Despite one letter in which Melanchthon wrote Erasmus that he was open to Academic methods in extra scriptural issues, it is clear that Melanchthon insisted on certainty in the sciences broadly speaking and that he saw no place for

²³⁵ Richard H. Popkin, *The history of scepticism: from Savonarola to Bayle* Rev. and expanded ed. (Oxford, 2003), p. 5.

²³⁶ Popkin, *The history of scepticism*, pp. 7-9.

²³⁷ Robert Rosin, *Reformers, the preacher and skepticism: Luther, Brenz, Melanchthon and Ecclesiastes* (Mainz, 1997), passim.

skeptical doubt.²³⁸ When Melanchthon distinguished between the means of certainty in religious and secular matters in his prefaces to the different editions of the *loci communes*, he did not say that there was certainty in religion but not in other matters, but that the means to certainty were different. Religion has revelation; philosophy has demonstration.

The matter of philosophical skepticism and civil unrest were not unrelated. The civil unrest at issue in Melanchthon's writings was a result of heresy, that is, by disagreement over religious doctrine. It may be that Melanchthon thought of the Anabaptists and the skeptics as two sides of the same coin because some of the Anabaptists magnified Luther's claims that there was a subjective basis to religious truth. Melanchthon must have been aware of the skeptical opinions of Hans Denck, for instance, whom Martin Bucer called the "pope of the Anabaptists." Denck was not a skeptic of the classical sort, but as part of a Christian mystical tradition. He was tried with the three "godless artists" from Albrecht Dürer's workshop and gave skeptical replies.²³⁹ This may have been part of the background to Melanchthon's need for certainty in demonstrating the bases of political obligation. The connection between heresy and skepticism would soon be made explicitly by Sebastian Castellio who following the execution of Michael Servetus in 1553 made the skeptical argument that capital punishment for heresy should be rethought since it could not be known with the requisite

²³⁸ Schmitt, *Cicero scepticus*, pp. 60-61. The letter of May 12, 1536 is clear (Si quae sunt disputationes extra scripturam, in illis et mihi placet ἐπέχειν more Academicorum. "If there are extra-scriptural disputes, I am pleased for there to be ἐπέχειν in such in the manner of the Academics."), but so are the statements to the contrary. E.g., *Epitome Ethices* of 1532: "But I call philosophy not all of men's opinions but the sure perceptions and those which can be demonstrated."

²³⁹ Rudolf Stadelmann, *Vom geist des ausgehenden mittelalters; studien zur geschichte der weltanschauung von Nicolaus Cusanus bis Sebastian Franck* (Halle, 1929).

certainty whether a particular person was a heretic.²⁴⁰ It may be that skepticism was as of great concern as heresy to Melanchthon, since he mentioned academic skeptics and not heresy in the context of his teaching about the application of demonstration to civil affairs.²⁴¹

By the 1540s, Melanchthon argued that certainty was necessary (and possible) in natural philosophy as well. Melanchthon admitted that not everything was certain in nature, and that some things which are thought to be certain at a given time could later be thought to be otherwise, but for him this does not mean that there is nothing in natural philosophy which is certain. There are several differences in emphasis here between the certainty of the natural philosophy and the certainty in politics. The most important is that the certainty of natural philosophy has a more pronounced religious purpose. According to Melanchthon, God, as the author of nature, wishes for some facts to be certain to men. So, even among the changeable things there

remains the certainty of many propositions divinely confirmed. God wishes that life be one thing, and death another, he wishes that there be certain differences between species, he wishes that the means of generation and nutrition instituted by him not be violated, he wishes that the order of the numbers be unchangeable, he wishes that there remain an unchanged distinction between worthy and wicked deeds, which is the image of the divine mind.²⁴²

²⁴⁰ Schmitt, *Cicero scepticus*, p. 63

²⁴¹ *Dialectica, iam recens aucta*, p. 58a: Neque enim ferendi sunt Academici qui contenderunt nihil certo sciri.

²⁴² Philip Melanchthon, *Initia doctrinae physicae*, in CR, XIII, pp. 188-189: Manet tamen interea multarum propositionum certitudo divinitus confirmata. Vult Deus alius esse vitam, aliud mortem, vult discrimen certum esse specierum, vult generationis et nutritionis modos a se ordinatos non violari, vult numerorum ordinem immutabilem esse, vult manere immotum discrimen honestorum et turpium, quod est imago divinae mentis. Et ut illa mens aeterna sui similis et immutabilis est, sic numeri et notitiae honestorum ab illo fonte ortae sunt immotae.

It is clear that Melanchthon meant for the certainty of natural philosophy to reflect the glory of God, though he put it in the negative: “to detract from the certainty of these things, is to insult God.”²⁴³

Like many proponents of the method of demonstration before and after him, Melanchthon was critical of empiricism without theory or method. This attitude is obvious in Melanchthon’s declamation against empirical medicine of 1531.²⁴⁴ Melanchthon addressed himself there to unlettered doctors, whom he took to be quacks (*impostores, histriones*) with no sense of the causes of remedy and disease.²⁴⁵ He was extremely skeptical of those without book learning: “But we see that there are many, who as if they had learned the entire art from Asclepius at once in a dream, claim that they are doctors, even if they have never read a page of Hippocrates, Galen, or Avicenna.”²⁴⁶ Melanchthon considered the objection that the illiterate may have great experience which is no less useful than art or theory. Melanchthon agreed that experience is important, since it is from experience that art is gradually born. But once an art is established, it is foolish, and in medicine, dangerous, to trust one’s own experience in the face of varied experience, as Hippocrates warned in the beginning of his Aphorisms. Melanchthon

²⁴³ Melanchthon, *Initia physicae*, CR, XIII, p. 187: quibus detrahere certitudinem, est Deum contumelia adficere.

²⁴⁴ Philip Melanchthon, *Contra Empiricos Medicos* (1531), in CR, XI, pp. 202-209.

²⁴⁵ Melanchthon, *Contra Empiricos Medicos*, p. 203: Quidam profitentur artem, pollicentur hominibus salutem in maximis periculis, cum nunquam didicerint: sed alicubi in Myropoliis, aut tonstrinis servierunt, ubi transcripserunt quaedam remedia, quorum neque causas, neque vires norunt, neque quo in loco valeant. “Some profess the art and promise health to men in great danger, since they never studied: but somewhere in perfume and in barber shops they practiced, where they prescribed remedies of which they did not know either the causes or the effects, nor in what case they were appropriate.”

²⁴⁶ Melanchthon, *Contra Empiricos Medicos*, p. 205: At videmus quam plurimos esse, qui quasi ab Aesculapio totam artem per somnium semel acceperint, venditant se inter Medicos, etiamsi nullam unquam paginam Hippocratis, aut Galeni, aut Avicennae legerunt.

concluded, “Art governs and imitates the experience not of unlearned but of the most outstanding. But these people without a teacher or schoolmasters study their own examples.”²⁴⁷ The prudent doctor joins art and experience. Experience without art is nothing but household robbery (*latrocinium domesticum*).²⁴⁸

There is no doubt that Melanchthon was greatly concerned with politics at this time. On June 14, 1529, Luther wrote about him, “Philip is weakening himself for the sake of the church and the state to the point where his health is in danger.”²⁴⁹ His present concern at this time was the behavior of the Zwinglians, the Swiss Protestants and followers of Ulrich Zwingli, whom he thought were an impediment to peace at the conference at Speyer. The Zwinglians composed a “left wing” of the Protestant movement and Melanchthon was dead set against reconciling with them, both doctrinally and politically. Doctrinally, the Zwinglians believed that the eucharist was only a memorial of Christ, while Melanchthon and Luther thought that Christ’s body was in some sense physically present in it. Politically, Melanchthon thought that a reconciliation would make peace with the Emperor and the Catholic church impossible, which he still hoped could be arranged.²⁵⁰ In March of 1530, Melanchthon addressed the question of whether it was permitted to resist a commander by force, in which he considered the issue of obedience to the Emperor.²⁵¹ There were further practical issues of political obedience

²⁴⁷ Melanchthon, *Contra Empiricos Medicos*, p. 205: Ars gubernat et imitatur experientiam non indoctorum, sed praestantissimorum. Isti vero sine praeceptore, sine magistris, suis exemplis discunt.

²⁴⁸ Melanchthon, *Contra Empiricos Medicos*, p. 206.

²⁴⁹ CR, XXVIII, pp. 27-8: Philippus sese macerat cura rei ecclesiasticae et reipublicae usque ad periculum valetudinis.

²⁵⁰ Clyde Leonard Manschreck, *Melanchthon, the quiet reformer* (Westport, CT, 1975), pp.167-9.

²⁵¹ CR, XXVIII, pp. 29-30.

arising almost every day. In May Melanchthon among other theologians were working on the Augsburg confession and they considered what to do if the Emperor demanded that the conferences be disbanded. Melanchthon was still concerned about the Zwinglians and wrote Luther on June, 13, 1530 to urge the Landgrave of Hesse to reject the Zwinglians who were rebellious against the Emperor. Melanchthon throughout the meetings in Augsburg sought peace, urging it on the Emperor's secretary in private, and worrying that he himself would concede too much for the sake of peace.

There is much evidence in Melanchthon's commentary to the first three books of Aristotle's *Politics* written in 1530 that Melanchthon's political science was aimed at overcoming the challenges posed by the Anabaptists and the Zwinglians. While the Zwinglians were clearly of great concern to Melanchthon at the moment of composition, it is the example of the Anabaptists and their extraordinary politics which was the focus of much of the work.

The Peasants' Revolt of 1525 and the peasants' platform, *The twelve articles*, were the main targets of the commentary.²⁵² Melanchthon specifically referred to *The twelve articles* as an "impious and seditious little book" which stated that Christians have the power to appoint their own pastors and immunity from taxes.²⁵³ The peasants' revolt of 1525 was a series of uprisings concentrated in Swabia, Franconia, and Thuringia. The demands of one set of these peasants, in the town of Memmingen in Swabia, were encapsulated in a document entitled *The twelve articles*. This document called for the right to choose their own pastor, the right to administer the tithe themselves, the abolition

²⁵² Evidence for the Anabaptists as his main concern are CR 11.282, cited in Kusukawa, "Vinculum," p. 349 and her *Transformation of natural philosophy*, p. 70.

²⁵³ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 441.

of serfdom, the right to fish and hunt and gather wood, the reform of feudal duties of service and labor, the reevaluation of rents, the upholding of customary law and against the changing of the law arbitrarily, the return of common fields which had been expropriated, and the abolition of the death tax.²⁵⁴

Luther responded to the work in 1525.²⁵⁵ Luther used a mix of natural law and scriptural arguments against the taking up of arms by the peasants, though he accepted the validity of many of their grievances. Their taking up arms, he argued, was against the plain sense of the Scriptures, as in Romans 13:1, “Let every person be subject to the governing authorities with fear and reverence” and the law of nature, since they insist on being judges in their own case which is forbidden by the usual definition of a judge as impartial.²⁵⁶ Luther’s general argumentative strategy was to thus argue that the peasants are neither good Christians, since they do not bear suffering with patience, nor even good heathens, since they do not follow the law of nature by insisting on being judges in their own case. Over and over the argument runs that the authors of the articles mistake what it is to be Christian. Luther explained forcefully that Christianity does not consist in taking the possessions of the local lord, in selfishness, or in trying to impose a heavenly kingdom of equally free Christians in this world. He thus rejected the claim that there should be an end to serfdom. With respect to many of the other specific claims, Luther

²⁵⁴ A translation of *The twelve articles* appears in *Luther’s Works*, ed. Jaroslav Pelikan and Helmut T. Lehmann (St. Louis, 1955-76) (hereafter cited as LW), XLVI, pp. 8-16. The original text is printed in *Urkunden zur Geschichte des Bauernkrieges und der Wiedertäufer*, ed. Heinrich Boehmer (Bonn, 1921), pp. 3-10.

²⁵⁵ Martin Luther, “Admonition to peace: A reply to the twelve articles of the peasants in Swabia,” in LW, XLVI, pp. 17-44, p. 17.

²⁵⁶ Luther, “Admonition to peace,” p. 25,

deferred to the lawyers, in keeping with his general respect for civil law.²⁵⁷ Luther thus did not appeal to political science in answering the peasants, but to the Scriptures and civil lawyers instead.

Luther's tone eventually became even less patient as he lost his appetite for arguing with the demands of the peasants. Later in the year, replying to the criticism that he had been too harsh in condemning the peasants, Luther replied:

If they think that this answer is too hard, and that this is talking violence and only shutting men's mouths, I reply, "That is right." A rebel is not worth rational arguments (*nicht werd, das man ihm mit vernunfft antworte*), for he does not accept them (*denn er nympts nicht an*). You have to answer people like that with a fist, until sweat drips off their noses. The peasants would not listen; they would not let anyone tell them anything, so their ears must now be unbuttoned with musket balls till their heads jump off their shoulders. Such pupils need such a rod. He who will not hear God's word when it is spoken with kindness, must listen to the headsmen, when he comes with his axe.²⁵⁸

Melanchthon offered a very different response to the peasants, though admittedly five years later, when the revolt had long been ended. He composed his response in terms of a political science rather than in theological terms partly because he thought of politics as a secular subject and partly because he was concerned with the epistemological status of political conclusions. Melanchthon, in his *Politics* commentary, attempted to show that the claims of the peasants could be rejected within a general presentation of political science. Though he often explained his interpretation of the Scriptures on any given question, his general purpose was to refute these positions according to natural reason. In

²⁵⁷ Cynthia Grant Shoenberger, "Luther and the Justifiability of Resistance to Legitimate Authority," *Journal of the History of Ideas* 40 (1979), pp. 3-20.

²⁵⁸ Martin Luther, "An open letter on the harsh book against the peasants," in LW, XLVI, pp. 65-66. The German text is Martin Luther, *Dr Martin Luthers Werke, kritische Gesamtausgabe* (63 vols., Weimar, 1883-1987), XVIII, p. 386.

doing so, Melanchthon was careful to point out that he is practicing political science and following Aristotle's text closely.

Melanchthon's first step in the commentary was to establish the secular nature of politics.²⁵⁹ He wished to distinguish his view from "those who dream that the Gospel is nothing other than political theory, according to which states should be founded."²⁶⁰ He wrote that there were attempts to rely on the Gospels as political theory in every age, but that there were more such attempts than he would wish for in his own time. Melanchthon argued that politics should be compared to medicine. Since both politics and medicine contain a teaching which accords with reason, there was no basis for politics to be more dependent on the Gospels than medicine. The political man should be pious just as the physician should be, but this does not imply that the arts of medicine and politics should be guided by the Gospels. The Gospels are concerned with eternal justice, whereas politics is meant for the here and now. Upholding the distinction between politics and the Gospels contributes to tranquility and peace. Melanchthon gave several examples of the kind of preachers who disturbed the peace by not distinguishing between the Gospels and politics. Among them is Zwingli, whom Melanchthon accused of calling taxes "harpies" and the Anabaptists who wished to judge economic matters according to the Mosaic law.²⁶¹

²⁵⁹ Luther also thought that politics was a secular activity, though he used theological arguments when discussing it. He thought it was a secular activity because he believed that most people in every age will not be Christian in spirit even if they are Christian in name. Martin Luther, *Luther's Works*, ed. Jaroslav Pelikan and Helmut T. Lehmann (St. Louis, 1955-76), XLV, p. 89 (hereafter cited as LW).

²⁶⁰ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 417: qui somniant Evangelium nihil esse aliud nisi politicam doctrinam, iuxta quam civitates constituendae sint.

²⁶¹ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 419.

Melanchthon admired Aristotle's method in the *Politics* as early as 1530. He wrote in his commentary to the first three books of the *Politics* that Aristotle's method, at least in the first book, resembled that of geometry:

I have often noted that Aristotle's method ought to be diligently observed. No one indeed is a better craftsman of method than Aristotle. Therefore he should be read even for this reason alone, that we might glean from him an example of method, that is, the right order of teaching something. As other arts begin from some common principles known by nature, such as are in geometry.²⁶²

Melanchthon continued to argue that just as geometry proceeds by deduction from these principles, so too politics proceeds by deduction from basic principles such as, "Man exists by nature for society" to more complex principles such as, "In a large society, it is necessary that some command, some obey."²⁶³ These political principles are not empirical generalizations, but are derived from "the nature or end of man."²⁶⁴ They are derived rationally or deductively from a teleological understanding of man's nature.

Melanchthon soon after made plain his motivation for likening politics to geometry. He was interested not so much in discovering and describing political behavior but in demonstrating the basis for political authority: "As therefore the causes which lead us to cultivate society are impressed in nature, likewise we should know that the causes of the nature of man which lead us to constitute authority and to obey magistrates are also

²⁶² Philip Melanchthon, *Commentarii in aliquot politicos libros Aristotelis*, in CR 16 (First edition, Wittenberg, 1530), p. 423: Saepe admonui in Aristotele diligenter observandam esse methodum. Nullus enim melior est artifex methodi, quam Aristoteles. Itaque vel ob hanc solam causam legi debebat, ut ab eo sumeremus exempla methodi, hoc est, iusto ordine docendi aliquid. Ut autem aliae artes incipiunt a quibusdam communissimis principiis natura notis, qualia sunt apud geometras. Totum est sua parte maius. Quae alicui terio sunt aequalia, inter se sunt aequalia.

²⁶³ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 423: Homo est as societatem natura conditus....In societate multorum necesse est alios praeesse, alios parere.

²⁶⁴ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 423: Ad hunc modum et aec ars sua habet principia, a natura seu fine hominis sumpta.

impressed.”²⁶⁵ For Melanchthon once the principle of the naturalness of society is established by deduction from the end of man, then the principle of political obligation can be shown deductively to be natural as well. The purpose of political science then is to teach these principles and how the conclusions about political authority follow deductively from them. As Melanchthon put it, “And this is the duty or role of the philosopher to notice and explain such rules or common opinions which are inscribed in nature.”²⁶⁶

Furthermore, Melanchthon did not merely want to prove that there was some general duty of political obligation, but rather that the actual laws of the day were connected to these principles. He called the civil laws the “hypotheses” of the “common principles,” using the old sense of “hypothesis” as a particular or subordinate thesis which follows from a more general one.²⁶⁷ The purpose of political science is to show the natural (and thus authoritative) basis of political authority.

This connection between method and civil peace was reflected in Melanchthon’s methodological writings as well. This is clear in his prefatory note to his *Erotemata dialectices*, where he wrote to Johannes Camerarius, the son of Melanchthon’s good friend Joachim Camerarius, that “Furthermore it is necessary in the Dialectics, not only that it should shed light on theory, but that it should also be a bond of peace.”²⁶⁸ The

²⁶⁵ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 424: Ut igitur impressae sunt in naturam causae, quae nos ad societatem colendam ducunt, ita sciamus etiam impressas esse causas naturae hominis, quae nos ducant ad imperio constituenda, et ad parendum magistratibus.

²⁶⁶ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 424: Atque hoc est philosophi officium, tales leges, seu communes sententias in natura scriptas animadvertere et explicare.

²⁶⁷ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 424.

²⁶⁸ CR VI, p. 655: Imo Dialectica opus est, non solum ut doctrina lucem habeat, sed etiam ut sit concordiae vinculum, quoted in Kusakawa, “Vinculum,” p. 352.

same thought appeared in his *Preface to Geometry*, which he must have written sometime before 1541. In this preface Melanchthon argued that proper method was necessary for concord and civil peace because it eliminates disagreement and dissension. The scholastic philosophy of the previous age, Melanchthon complained, led to “inane sophistries.” It is now more than ever necessary to proceed solidly:

For this our age reminds us sufficiently how necessary perfect doctrine is to the state, because many people now and then, whether from a lack of judgment, or because they cannot explain anything, have scattered or defend absurd and confusing opinions, from which arose in the Church great strife and dissension. Nor will there be any end to these evils unless the youth are recalled to the true and learned method of study.²⁶⁹

It was important to Melanchthon that the deductive process and its conclusions be imbued with certainty. Melanchthon preempted the natural objection that such relationships could be arbitrarily “proven,” that they are “just so” stories proving in some ad hoc fashion that any laws of whatever kind are to be obeyed. Rather, Melanchthon clarified, not everything that a philosopher says should be taken as a law of nature but “only those which hold together in demonstration.”²⁷⁰

The actual contents of the work neither live up to the scientific standard of demonstration nor rigidly demand obedience in every instance. Despite the prefatory material, it is more properly seen as a response to the peasants and Anabaptists than an

²⁶⁹ Philip Melanchthon, *Praefatio in Geometriam* (Collected in Strasbourg, 1541), CR 3, p. 110. Cited in Charlotte Methuen, “Zur Bedeutung der Mathematik für die Theologie Philipp Melanchthons,” in *Melanchthon und die Naturwissenschaften seiner Zeit*, eds. Günter Frank and Stefan Rhein (Sigmaringen, 1998) (Melanchthon-Schriften der Stadt Bretten ; vol. 4), pp. 85- 103, p. 90:

²⁷⁰ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 424: Neque vero propterea omnium philosophorum somnia pro oraculis habenda sunt, sed delectus adhibendus est, quae sententiae certa de causa affirmantur, quae sine demonstratione dicantur.

argument for political obedience or the early modern state per se.²⁷¹ It is not a work of political absolutism or undivided sovereignty, and indeed, if any politics comes through, it is the preservation of private property, even against the prince. Melanchthon was a proponent of monarchy, but like the Protestant Aristotelians who would follow in his path, he was open to a variety of kinds of politics, including aristocracy, as in Nuremberg, and many varieties of elective and constrained monarchies.²⁷² The work is conservative but not statist.

This is clear in several examples of Melanchthon's use of the scientific method to refute the political claims of the peasants. These groups posed two sorts of difficulties which Melanchthon took up in his commentary. First, their claims to interpret the civil law for themselves and making themselves the standard of legitimacy by which to evaluate civil law posed a general threat to the notion of political obligation and the idea that obedience was owed to the prince and his magistrates. Second, the Anabaptists in particular posed a specific threat to many traditional political and economic institutions, such as serfdom and private property.

Melanchthon opposed the peasants' claim that serfdom should be abolished via Aristotelian political science. Melanchthon rehearsed Aristotle's argument that there are slaves by natures. "For he [Aristotle] shows that there are causes appearing in nature, namely, weakness of mind, which when they are found in men, it is necessary that such

²⁷¹ This claim is made for Melanchthon's dialectics in Kusakawa, "Vinculum," pp. 350-352. Furthermore, it is assumed that this is the project of much of the modern school of natural law. The fact that Kusakawa does not account for Luther and Melanchthon's change of views on political obedience from the 1520s is mentioned by Ralph Keen, review of *The transformation of natural philosophy: The case of Philip Melanchthon*, by Sachiko Kusakawa, *Church History* 65 (1996), pp. 700-701.

²⁷² Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 436.

men be ruled by the counsel of another.”²⁷³ Melanchthon emphasized that such weakness of mind was a natural cause. He hoped that such an argument, with the help of Scriptural authority, would refute those “fanatical men of our time who reading the Gospels in a popular fashion call for liberty and claim that servitude is against the Gospels.”²⁷⁴ Luther had only argued that serfdom was sanctioned by the Scriptures and was completely consistent with Christianity. “You assert that no one is to be the serf of anyone else, because Christ has made us all free...This article, therefore, absolutely contradicts the gospel. It proposes robbery, for it suggests that every man should take his body away from his lord, even though his body is the lord’s property. A slave can be a Christian, and have Christian freedom, in the same way that a prisoner or sick man is a Christian, and yet not free.”²⁷⁵ Melanchthon’s traditional Aristotelian argument was based on an appeal to reason and nature, not Christian doctrine.

Melanchthon also opposed the claim that property should be in common, which may be referring to the claims in *The twelve articles* to the rights to fish, hunt, gather wood, and use fields that are in common, or perhaps to the communism of property advocated by Thomas Müntzer, the Anabaptist leader. According to Melanchthon, the division of property among men is natural and is sanctioned by Aristotle, natural law, and the law of nations. Luther had offered no particular refutation of the community of

²⁷³ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 426: Ostendit enim quod habeat causas in natura positas, scilicet imbecillitatem ingenii, quae cum nascatur cum hominibus, necesse est eos regi alieno consilio.

²⁷⁴ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 426: fanaticos homines nostri temporis, qui praetextu Evangelii vulgus ad pileum, hoc est, ad libertatem vocarunt, et contenderunt servitutem contra Evangelium esse.

²⁷⁵ Luther, “Admonition to peace,” p. 39.

property in his criticism of the *The twelve articles*, beyond accusing the peasants of selfish worldliness, the lords of selfish cruelty, and referring the matter to the lawyers. Melanchthon chose two arguments from Aristotle that such community of property was unnatural. The first argument is that if all goods are in common, the lazy will not work for their share. The second argument is where there is community of property the men who are desirous of glory and power, who it is implied appear under any system, will have to fight with the weaker men who lay claim to some of the possessions; this will lead to violence and turmoil. Melanchthon assumed then that it is natural to work for your goods and that it is natural that some people will be desirous of glory and power.²⁷⁶

Melanchthon defended the use of Roman law in Germany against Thomas Müntzer and others claimed that a new Christian law should be instituted and against the peasants of *The twelve articles*, who claimed that the customary laws should continue to be used. Melanchthon responded to these concerns in the context of Aristotle's discussion of whether the best regime should be ruled by a person or by laws. Melanchthon argued that it should be ruled by laws, since laws provide a guide to the judge and are seen to be impartial by the parties in a case.²⁷⁷ Melanchthon thought that the Roman law which was in place in the Empire embodied impartiality and equity and was helping Germany develop into a civilized nation. "Now as other nations sometimes have rightly questioned their laws, certainly at this time the Germans do not at all have reason to complain, since we use Roman law, which is full of humanity and equity, which was written by men who are most expert in ruling the state, so that this nation [Germany] which formerly was the

²⁷⁶ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 431.

²⁷⁷ Melanchthon, *Commentarii in politicos*, in CR, XVI, pp. 444-5.

height of barbarism has given way to a quieter and more humane life.”²⁷⁸ The reason that Melanchthon gave for this is that the authors of the Roman law were true experts in legal reasoning who spent their lives in the law courts and politics, unlike the preachers advocating a new Christian civil law. The argument then for the laws was based on traditional and reasonable criteria, but the argument specifically for Roman law was based on the more contingent argument of professional competency. The Roman law happens to be an excellent law because of the experience of its authors; it cannot be proven abstractly to be the case. So this argument, like many others that appear in the work fall short of the ideal of demonstration.

In keeping with the spirit of these examples, the rest of the work is deeply conservative. Nevertheless it leaves room for some legal and political change. It is generally conservative about legal change as is evident from his argument that the preachers who abolish the old laws because they do not understand why they were instituted in the first place are faced with the task of instituting infinitely more. Furthermore, he argued that any state was consistent with the Gospel as long as it was consistent with reason and he insisted that we should take Frederic of Saxony as our example who opposed all signs of change with the phrase, “Es macht Bewegung.”²⁷⁹ Melanchthon commented that “with this phrase he explained that those who rule states should look ahead with the greatest care lest any occasions or causes of change should be

²⁷⁸ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 446: *Iam ut aliar nationes aliquando de suis legibus iure questae sint, certe hoc tempore Germanos minime decet queri, quum Romano iure utimur, quod est plenum humanitatis atque aequitatis, quod ab hominibus reipublicae regendae peritissimis scriptum est, quod hanc gentem, cuius olim summa barbaries fuit, ad mitiorem ac humaniorem vitam traduxit.*

²⁷⁹ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 420.

sown. For once tumults arise, they will not be quieted from many centuries.”²⁸⁰ And Melanchthon argued that one must be obedient to even an impious magistrate.²⁸¹

Yet Melanchthon was careful to note that the civil law is not the same as natural law and that it tolerates some long standing vices, such as usury which are forbidden to the Christian.²⁸² If the civil law diverges from the natural law only slightly, it should be borne, but if it diverges greatly it should be changed. Melanchthon was also careful to leave room for resistance to the Emperor and other Catholic forces. He argued that neither the Emperor nor the Pope were rightful monarchs of the world, but rather there should be monarchs for individuals countries.²⁸³ Melanchthon made even more room for resistance in his commentary to Cicero’s *De Officiis*, also written in 1530. There he wrote that a private individual may resist with violence a magistrate whose injustices are “atrocious,” but not if they are simply terrible (*notoria*). Then they must be tolerated. While Melanchthon tried to uphold the distinction between two, he must have known that he was wading into dangerous waters. “But nevertheless the distinction should be upheld between a tyrant and a mediocre magistrate and between atrocious and non atrocious injuries in politics.”²⁸⁴

²⁸⁰ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 421: Hac voce significabat summa cura providendum esse his qui tenent respublicas, ne sererentur ullae occasiones aut causae motuum. Semel excitati tumultus, postea multis seculis non consulescunt.

²⁸¹ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 449.

²⁸² Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 429.

²⁸³ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 438.

²⁸⁴ Melanchthon, *Commentarii in politicos*, in CR, XVI, pp. 574-5: Sed tamen discrimen teneatur inter tyrannum mediocre magistratum, et inter atroces iniurias, et non atroces in negotiis politicis.

Melanchthon's ambivalent message about political obedience in 1530 marks it as a transitional moment in the progress of Luther and Melanchthon's views on the subject. In the 1520s, Luther advocated obedience to one's superiors in a hierarchy of political rule. Individual subjects could not resist their princes with force even if they commanded sacrilege. Rather they were instructed simply to practice passive disobedience and to suffer the punishments meted out to them without resistance. At a meeting jurists and theologians in 1530, however, Luther was convinced by the jurists that resistance to the Emperor was allowed by the constitution of the Holy Roman Empire itself. This was the sensibility reflected in the works of Melanchthon discussed above. Their views became more and more favorable to resistance after the Emperor Charles V became more hostile to the evangelical territories in the 1540s.²⁸⁵

Ultimately the message that Melanchthon's political writing imparted to his readers is far from clear. Its purported political message of obedience was inconsistently argued for in the writings of the 1530s and would be attenuated even further in his writings of the 1540s. And the introduction of the geometric method which was supposed to serve that message was inconsistently and weakly applied in the *Commentary on the Politics*.

Nevertheless the legacy of this work is clear. The message of Melanchthon's prefatory material and methodological writing were adopted into the modern school of natural law. Thus his conception of a political science as a deductive science analogous to geometry became the pattern for Hobbes and Pufendorf in the next century. These

²⁸⁵ Shoenberger, "Luther and the Resistance to Authority."

authors even shared the same motive, namely, the threat of civil unrest.²⁸⁶ The continuity between Melanchthon and the modern school of natural law has been recognized by early modern and modern scholars. As we have seen in the introduction, Thomasius and Brucker noticed that this optimism of Melanchthon's was reflected in the modern school of natural law. For Thomasius and the other natural lawyers the modern natural law offered real hope for a political science that would furnish a solution for civil disagreement and unrest without resorting to violence.²⁸⁷

Melanchthon's political science also had a second legacy as well. Though Melanchthon himself did not focus on a science of politics as a logic of discovery, his assertion that there could be scientific knowledge of politics was gradually adapted to the view that there could be an inductive science of politics as well as a deductive science of politics. The principles of the Protestant professors of medicine who would adapt the ideal of demonstration to empirical political science and whom we shall soon discuss are not based on teleology, but on observation, and their method is more in keeping with that of the Italian natural philosophers such as Zabarella and Cremonini than Melanchthon.

These authors were interested in demonstration not only as the standard of causal explanation but also as a chain of deductive principles which tie political institutions to natural principles. It is clear that for Melanchthon causal explanation was part and parcel of the project of demonstrating the moral requirement to comply with the political authority and to broadly demonstrate the natural bases of political institutions. So,

²⁸⁶ Harvey C. Mansfield, Jr., "Hobbes and the Science of Indirect Government," *American Political Science Review* 65 (1971), pp. 97-110.

²⁸⁷ Thomasius, Brucker, Joachim Pütter, Carl von Kaltenborn, *Die Vorläufer des Hugo Grotius auf dem Gebiete des ius naturae et gentium sowie der Politik im Reformationszeitalter* (Leipzig, 1848), Merio Scattola, *Das Naturrecht vor dem Naturrecht* (Tübingen, 1999).

Melanchthon wrote as a single thought that the purpose of the discipline of politics was to discuss the duties which pertain to society and to point out the natural causes of society.²⁸⁸ Like the treatment of politics in the medieval schools, Melanchthon offered an appeal to explanation, but unlike the schools, he does not allow for a plurality of final causes leading to a variety of kinds of politics. Melanchthon's natural causes are mostly material causes, which characterize the nature of men rather than the final causes employed to a large extent in the medieval commentaries which characterize men's ideas of the good. So, in the examples discussed above, Melanchthon referred to the weakness of mental capabilities of some men as justifying serfdom, the fact of some men's laziness making the community of property impossible, and the expertise of the Roman lawyers as justifying its use in Germany. Melanchthon may have been drawn to such explanations because they make it easier to make justificatory arguments. If one wishes to justify a given set of institutions it is easier to argue that men are of a certain kind which means that institutions need to be of a certain kind. The argument of the schools, that such institutions are in keeping with the good for man if man properly conceives of his good, is far more abstract and less ironclad. Regardless, it is arguments such as these that were of great interest to the first generation of empirical political scientists. Where Melanchthon wished to show only that the possibility of some men's laziness made the community of property impossible, they wished to investigate the character of specific nations, to know whether the men of a given country were lazy, why that was the case, and what that meant for their political institutions.

²⁸⁸ Melanchthon, *Commentarii in politicos*, in CR, XVI, p. 421-2: politica disputant de societate civili, et officiis ad societatem pertinentibus, et causas societatis ex natura ducit.

These authors invoked the idea of demonstration without an eye to obedience to the law, possibly because they were more familiar with the attitude towards resistance developed in later Lutheranism. Or possibly because by the time of their writing the application of demonstration to practical philosophy was already depoliticized and sufficiently widespread that it no longer entailed the political message of obedience. The difficulty with this explanation is that demonstration—and certainly the geometric method—did have such a meaning for authors in the natural law tradition at the time as we have seen.

Melanchthon never implemented his conception of a science of politics as an education in obligation at the university of Wittenberg. His commentary on the *Politics* was evidently not written for the classroom, since there is no evidence of his teaching such a course. In fact, Aristotle's *Politics* was only taught at Wittenberg for a period of eight years and only some sixty years after Melanchthon's commentary was written. The *Politics* was taught "extraordinarily" in the faculty of philosophy between 1595 and 1598 by Friederich Tilemann and between 1598 and 1603 by Hieronymous Valentinus de Cantoral. Ethics by contrast was taught "ordinarily" and continuously in the faculty from a couple years after the founding of the university on.²⁸⁹ There is reason to believe though that by the time Tilemann taught the *Politics* at Wittenberg, it was much more in the new spirit of history than in the deductive method of Melanchthon's. Tilemann was hired for his knowledge of history and politics and he wrote a small work, presumably for instructional use, on the utility of history.

²⁸⁹ Heinz Kathe, *Die Wittenberger philosophische Fakultät 1502-1817* (Cologne, 2002), pp. 457-8, 469.

Still the Melanchthonian application of demonstration to politics was almost certainly accepted in much of Europe by the late sixteenth century. This was evidently the case in the Lutheran territories. For example, a student at the school Lutheran school at Lemgo in the county of Lippe in Germany in 1597 would no doubt have been easily convinced of the Melanchthonian message of the demonstrability of propositions about ethics and politics. In his fifth year, he would have studied Ramus's logic with that of Melanchthon, Cicero's *De Officiis*, perhaps in Melanchthon's edition, Sleidan's history where he could have read a vivid recounting of the political and religious violence which spurred the need to apply demonstration to ethics and politics. Finally, in his sixth and last year at the school, he would have studied Melanchthon's physics with that of Scribonius, a Ramist, and Melanchthon's compendium of ethics.²⁹⁰ Any student with this education was bound to have thought that demonstration in ethics and politics was not only possible but necessary.

The fact that demonstration by the first decades of the seventeenth century was being applied widely to practical philosophy apart from any confessional or religious motivation is attested to by the example of Charles François d'Abra de Raconis, or Raconius (1595-1646), a professor of philosophy at the University of Paris and later the Bishop of Lavaur and a vehement opponent of Jansenism, the reform movement in Catholicism which argued that Catholicism had moved too far from Augustinian doctrines on grace in its efforts to distinguish Catholicism from Protestantism. Raconis concluded in his third introduction to the nature of ethics that ethics was in fact a science.

²⁹⁰ Joseph S. Freedman, "The Diffusion of the Writings of Petrus Ramus in Central Europe, c. 1570-c. 1630," *Renaissance Quarterly* 46 (1993), pp. 98-152, p. 136, table s.

Like many other scholars who commented on the nature of a discipline, Raconis assumed that ethics must be one of the five Aristotelian intellectual habits of mind presented in book six of the *Nicomachean Ethics*.²⁹¹ Raconis concluded that ethics is a science or belongs to the scientific habit of mind, because in ethics, as in Aristotle's model of science in the *Posterior Analytics*, necessary conclusions may be demonstrated through true causes, and from certain principles.²⁹²

Raconis's position here most probably reflected a conventional view of ethics by the beginning of the seventeenth century. Raconis's aforementioned position appeared in his works on ethics which were based on his teaching either at the colleges of Grassins and Sorbonne-Plessis, two of the colleges of the university of Paris in which the philosophy course was taught, or at the college of Navarre, also part of the University of Paris, where he taught theology after 1615.²⁹³ The philosophy course was standardized at Paris at this time and taught by several professors in different colleges at the same time. Raconis's position on ethics was no doubt the conventional view that was being taught at the time.²⁹⁴ There is no reason to believe that there was a religious dimension to the position taken. By the first decades of the seventeenth century, the notion of a

²⁹¹ Charles François d'Abra de Raconis, *Secunda pars philosophiae seu Ethica* (Paris, 1622), p. 16.

²⁹² Raconis, *Ethica*, p. 16: Omne bonum recta rationi consentaneum est de facto prosequendum, / Atqui virtus est eiusmodi, / Ergo est prosequenda.

²⁹³ L.W.B. Brockliss, "Aristotle, Descartes and the New Science: Natural Philosophy at the University of Paris, 100-1740," *Annals of Science* 38 (1981), pp. 38-52, p. 37.

²⁹⁴ Full confidence in this statement will require a comparison of the materials referred to in Brockliss, "Natural Philosophy at the University of Paris."

demonstrative science of ethics, if not universal, was certainly widely taught across the confessions.²⁹⁵

“For the most part” demonstration

Those thinkers who have thus far claimed that there could be a science of politics meant by that a deductive science of propositions or conceptual arrangement of political institutions. Science has meant that politics could be taught in the university. Melancthon emphasized that science meant not only that it could be taught and that the causes of political institutions could be shown, but that the conclusions were to be held with certainty. The conception of science is thus far still distant from what we think of as science, and the political science different from some notions of political science. There was up to this point no investigation or discovery that was thought to be scientific.

Over the second half of the sixteenth century, Melancthon’s methodological writings were adopted through Europe and combined with those of Petrus Ramus, as we have mentioned. Petrus Ramus (1515-1572) is best known for his logic, which is really a system of presenting knowledge in an orderly fashion. Ramus was famously controversial, arguing against Aristotle’s logic and at the same time claiming to be the only true Aristotelian. He was a popular professor of philosophy and eloquence at the

²⁹⁵ In fact Raconis and his Protesant opponent Pierre du Moulin were in agreement on this point. Du Moulin gave political examples of demonstrable propositions in his *Elements of Logic*, including, “Of all estates, oligarchy is the most subject to civil war.” Pierre du Moulin, *The elements of logick*, trans. Nathaniel De Lawne (London, 1624), p. 165. And though Raconis’s anti-Jansenist writings were still some twenty years off, if he was consistent with his future position we may imagine that he would have been more sympathetic in moral theology, that is in the definition of sin, with the Jesuit casuists than the Jansenist rigorists. The Jansenists were rigorists about moral theology because they thought that the Catholics after the reformation had inclined too far to the position that one’s works and circumstances affected sin rather than to the position of Augustine that sin was a matter of grace. If it is true that Raconis took his position that there was a science of ethics despite his religious sympathies, then Thomasius and Brucker’s account discussed in the introduction, whereby the doctrine of demonstration was denied to morals by Catholics in order to secure the position of the priest, was a selective reading of the sources.

Collège de France, and had longstanding arguments in print with more conventional Aristotelians. Ramus was a Protestant, and it seems that he was killed because of it during the St. Bartholomew's Day massacre.

At the same time as the methodological writings of Ramus and Melanchthon were gaining in popularity, empirical science was proceeding to make headway, as in the spread of the work of the physician and alchemist Paracelsus (1493-1541). By the end of the sixteenth century the two notions of science—that of the handbooks of dialectics, such as Melanchthon's, and the strict reading of Aristotle's *Posterior Analytics* on the one hand and that of the empiricists on the other—began to come into conflict. This was evident in the debates around the first textbook in chemistry, the *Alchemia*, written in 1597 by Andreas Libavius (1555-1616).²⁹⁶ Libavius favored the definition of science in the Ramist tradition to that of the Paracelcists.

The conflict between these definitions of science touched political science as well. By the first decades of the seventeenth century, political science was no longer only thought to be a deductive science of universal axioms, but to include empirical observations as well. Yet the professors of medicine who were struggling to defend the possibility of an empirical science of politics against those who held a rigid conception of science were not thoroughgoing empiricists of the Paracelsist type. In fact, there is reason to believe that in their main field of medicine, they were all opposed to Paracelsus and his followers. They walked a fine line between the Phillipio-Ramist conception of science on the one hand and the empiricism of Paracelsus on the other.

²⁹⁶ Owen Hannaway, *The chemists and the word: The didactic origins of chemistry* (Baltimore, [1975]).

One of the most important developments of the late sixteenth and early seventeenth century was the establishment of a “for the most part” science. Science, as we have seen, had to be universally quantified according to Aristotle. This fact was insisted upon by Ramus, whose writings in logic were authoritative at this time, and so the argument for a “for the most part” science took the form of a polemic against Ramus and Ramism. This was no mere technical disagreement; the establishment of “for the most part” scientific knowledge in human affairs was crucial to the development of a human science understood as a logic of discovery because “for the most part” reasoning unlike universal thinking allows for empirical observation which in human affairs is variable. Furthermore, for many authors, only “for the most part” statements in ethics and politics offered the possibility of certain knowledge without the abrogation of free will because a “for the most part” proposition allowed for the possibility that one might act otherwise, contrary to the rule or proposition which was only true for the most part.

Ramus, like many of the other humanists who emphasized rhetoric, was cautious about demonstration.²⁹⁷ He was not against demonstration altogether, as were some of the other partisans of rhetoric, but he was against the application of demonstration to matters which were not strictly universal and necessary. Some of the critics of demonstration in human affairs were straightforwardly skeptical in their philosophical orientation, but Ramus actually followed the straightforward interpretation of Aristotle here. This is true not only of Ramus himself but his followers more generally. The Ramist opponents of a science of human affairs were not skeptics at all. This is evident in the general orientation of the defenders of Ramism at Helmstedt, such as Caspar Pfaffrad and Daniel Hoffman,

²⁹⁷ Cf. Vives.

who were by no means skeptics, but rather quite orthodox Lutherans who were opposed to the Melanchthonian statement of theology, the *Formula concordiae*. Thus there were more than one set of opponents to a science of human affairs.

The Ramist opposition to a science of human affairs stemmed from Ramus's distinction between the *methodus doctrinae* and the *methodus prudentiae*. The distinction seems to contradict Ramus's famous assertion that there was only one method, but Ramus clarified his position over time and explained that these are levels of precision with which the one true method of proceeding from the more general to the more specific can be handled, not two different methods.²⁹⁸ Though Ramus is well-known for reducing logic to dialectic, this did not imply for him a less firm foundation of knowledge. Ramus followed Aristotle in the *Posterior Analytics* in arguing that scientific propositions should have three characteristics: they should be *de omni* (κατὰ παντός), *per se* (καθ' αὐτό), and *universaliter* (καθ' ὅλου (πρώτον)). Indeed, it was this view that allowed Ramus to claim that he was the truly authentic Aristotelian in his debate with Jakob Schegk (1511-1587), the professor of logic at Tübingen and enthusiast of demonstration.²⁹⁹

Two of the most important German Aristotelians and opponents of Ramism, Philip Scherb (1555-1605) and his student Michael Piccart (1574-1620) held that politics was at least in one sense a science, though Piccart would later change his mind and consider it an art.³⁰⁰ Scherb, who was a philosopher and doctor, was a contemporary of Cremonini and Lipsius. He was educated in Basel and Italy, became a professor of

²⁹⁸ Wilhelm Risse, *Die Logik der Neuzeit* (2 vols., Stuttgart-Bad Cannstatt, 1964, 1970), I, pp. 147 ff.

²⁹⁹ Risse, *Die Logik der Neuzeit*, pp. 156-8.

³⁰⁰ Scattola, *Dalla Virtù*, p. 142. Scattola treats Scherb and Piccart as some of the first to define a science of politics, Scattola, *Dalla Virtù*, p. 141. This section on the two of them owes much to his account.

philosophy in Basel, and then in 1586 a professor of logic, metaphysics, and medicine in Altdorf. He died in Altdorf in 1605.³⁰¹ Piccart was made a professor of Logic in Altdorf in 1599 and then a professor of poetry and metaphysics in 1604.³⁰² He was a student of Scherb's, and Conring always mentioned the two of them in one breath as the best of the German Aristotelians.³⁰³ Piccart followed Scherb's argument closely without adding much detail, so the account of Scherb will be discussed here.³⁰⁴

Scherb presented the medieval distinction of *utens-docens* with the sixteenth terminology of *methodus* grafted onto it.³⁰⁵ "If you consider politics merely theoretically," Scherb wrote, "or in so far as it is taught and considered as theory confined to a certain method, then it can be ascribed to science to some extent. But considered not as method, but as a habit acquired from the experience of affairs, it is a part of prudence."³⁰⁶ As theory, politics is a part of science, but as a habit acquired by experience, it is a part of prudence.

³⁰¹ Jöcher, s.n. Brief biographical information is available in *Biographisches Lexikon der hervorragenden Ärzte aller Zeiten und Völker* (6 vols., Berlin, 1929-1935), v, p. 517.

³⁰² Jöcher, s.n.

³⁰³ Hermann Conring, [Introductory letter to Johann Conrad Dürr] in Michael Piccart, *Isagoge in lectionem Aristotelis*, ed. Johann Conrad Dürr (Altdorf, 1660), pp.)(3r-)(4v], p.)(4r].

³⁰⁴ For Piccart's endorsement of "for the most part" demonstration in natural philosophy, see Michael Piccart, *Isagoge in lectionem Aristotelis* (Nuremberg, 1605), chapter 29, p.216. For his claim that there is "for the most part" demonstration in practical philosophy and that Aristotle said as much, p. 217.

³⁰⁵ Scattola discusses Scherb and Piccart, but does not identify the *utens-docens* distinction or place them in the context of the preceding debates on method in moral philosophy.

³⁰⁶ Philip Scherb, *De Natura Politicae* (Frankfurt, 1608), §. 23-24, Sig. A6r-v: Si meros theoristikn spectes vel quatenus Politica docetur & consideratur ut doctrina in certa methodum redacta, ad scientiam quodammodo referri potest. Verum considerata non ut methodus, sed ut habitus usu rerum comparatus, prudentiae pars est. Cited in Scattola, *Dalla Virtù*, p. 143.

Scherb began his argument for a “for the most part” science of human affairs with the familiar premise that in human affairs general rules were often unhelpful, that one needs to attend to the circumstances.³⁰⁷ From this premise, he argued that for many of the ancient authors, “for the most part” knowledge was sufficient. “For in the aphorisms of Hippocrates, who is thought of as an oracle, it is enough—and this judgment is shared by Galen—if truth is for the most part (*ut plurimum*).”³⁰⁸ He noted that the same “for the most part” truth could be observed in the “laws of physiognomy, agriculture, oratory, governance.”³⁰⁹ Galen and Aristotle both believed that there is “for the most part” scientific knowledge, even if it is less useful.³¹⁰ This argument reflected Scherb’s general belief that politics is similar to medicine.³¹¹

Politics had often been compared to medicine, as we have seen, but with the advent of Renaissance Galenism the similarities in methodological approach were explored in greater depth than ever before. Galen’s works played an important role in the history of scientific method as well. They were systematized by Avicenna (980-1037) in

³⁰⁷ Philipp Scherb, *Dissertatio pro philosophia Peripatetica adversus Ramistas* (Aldorf, 1590), pp. 17-20. Cited in Scattola, *Dalla Virtù*, pp. 146-8. This passage has been discussed by Scattola, but he omits from his citation some of the most telling details, especially some of the more explicit connections to medicine and physiognomy. These passages let us see the close connection between medicine and political science, and they reveal that within medicine physiognomy was the model of a probable or “for the most part” science. Also, this further confirms Neal Ward Gilbert’s contention in *Renaissance concepts of method* (New York, [1963]) that Galenism was used to combat Ramism. See also Dreitzel.

³⁰⁸ Scherb, *adversus Ramistas*, pp. 17-20: Nam in ipsis Aphorismis Hippocratis, qui pro oraculis habetur. satis est Iudicio etiam Galeni si veri sint ut plurimum.

³⁰⁹ Scherb, *adversus Ramistas*, pp. 17-20: Idem quoque videbis in regulis Physiognomiae, Agriculturae, Oratoriae, Gubernatoriae.

³¹⁰ Galen, 4. de ratione vocis: morbi acuti, Aristotle, *Metaphysics*, 1027a20-21: Omnis scientia aut est eius quod est semper aut ut plurimum.

³¹¹ He argued that just as the physician treats people of different temperatures differently, the *politician* treats the natures of democracy and aristocracy differently. Scherb, *De Natura Politica*, §. 27, Sig. A6v-A7r.

his *Canon*, which after being translated into Latin became a standard work in the faculties of medicine. Then, beginning in the mid-fifteenth century, Galen's works were translated afresh from the Greek by humanist scholars such as Nicolo Leoniceno (1428-1524).

Galen believed that demonstration relied on common principles, the *ennoiai konoi*. In a fascinating passage, Melanchthon referred to a passage in which Galen admitted that he was saved from Pyrrhonian skepticism by geometric demonstration: "Galen confesses that he almost descended into the madness of the Pyrrhonists if he had not seen that geometry had the power of demonstration."³¹² Gradually, Galen's works were compared with the works of other classical physicians and with observations from life. These observations were modeled after Hippocrates's writings, and a school of thought which can be called Hippocratic Galenism emerged. While Melanchthon was a fairly typical humanist Galenist, Philip Scherb was more representative of Hippocratic Galenism. Both were Galenist in their opposition to skepticism, but as a representative of the later trend, Scherb was more oriented to science as a logic of discovery than with demonstration alone.³¹³

Scherb listed a remarkable number of examples of "for the most part" knowledge from a variety of fields.

Take these examples: Man is born as the natural philosophers teach, in the tenth lunar month or in the ninth Greek month, but this is not true universally. Is the proposition then to be condemned? The same people teach that an eight-month

³¹² Gilbert, *Renaissance method*, p. 14 n. 13: Galenus fatetur se pene in amentiam Pyrrhonorum delapsus esse, nisi Geometria vidisset tantam vim esse demonstrationum, citing *Melanchthoniana Paedagogica*, ed. Carl Hartfelder (Leipzig, 1892), p. 183

³¹³ On Galenism in the sixteenth and seventeenth century see José M. López-Piñero, "Galenism," *Encyclopedia of the Scientific Revolution*, ed. Wilbur Applebaum (New York, 2000), pp. 243-45, and *The medical renaissance of the sixteenth century*, eds. A. Wear, R.K. French, and I.M. Lonie (Cambridge, 1985).

old fetus is not alive; that the summer is hot and dry and the winter cold and wet; that man is an animal with five fingers; that the admirable tides appear twice in twenty-four hours, but the Euripus in Euboea ebbed and flowed seven times in the space of twelve hours, and indeed such examples are countless. Consider physiognomy in Hippocrates: whoever is red-headed with a sharp nose and small eyes is bad, whoever is red-headed, snub-nosed, and has large eyes is good. Likewise, a person with unblinking eyes is hot-tempered. Consider politics: old men are greedy; young people think they know everything; women are more cautious because of fear; men however are more ready to defend the home because of their manliness; a deposit should be returned; a ward without the consent of his guardian is not obligated.³¹⁴

Scherb juxtaposed propositions in politics to propositions in natural philosophy in a very interesting way in this list. The propositions that Scherb labeled “political” fall into two categories, namely, propositions about the nature of groups of people and propositions from the law. The propositions about the nature of groups, such as “old men are greedy,” are remarkably similar to the physiognomic propositions, such as “a person with unblinking eyes is hot-tempered.” Both sets of propositions were considered instances of material causation in Aristotle’s explanatory scheme. Such rules are generally predictive, but only generally; there will be exceptions to these rules. Such rules about human behavior which are tied to their nature once again show the prevalence of argument from the humors or the nature of people.

³¹⁴ Scherb, *adversus Ramistas*, pp. 17-20: Intuere exempla: Nascitur homo, ut docent physici, decimo mense lunari aut nono Graecorum, at non est hoc verum κατὰ παντός. Condemnandane igitur propositio? Docent iidem, octimestrem foetum non esse vitalem; aestatem esse calidam et siccam, hiemem frigidam et humidam; hominem esse animal quinque digitorum: admirabiles Oceani ἀνξομειώσεις 24 horis bis fieri, at Euripus in Euboea 12 horarum spatio septies fluit et refluit, et talia quidem ὅσα κοινός.; Intuere etiam physiognomica apud Hippocratem Quicumque ruffi, naso acuto, oculis parvis, mali: Quicumque ruffi, simi, oculis magnis, boni. Item: oculi non nictantes, iracundi. Intuere politica: Senes sunt avari: Iuvenes se putant omnia scire. Foemina est propter metum φυλακτικώτερα: vir autem ἀμυντικώτερος, ἀνδρίαν [Aristotle, *Economics*, 1344a2; English trans. from the Loeb ed.]. Depositum est reddendum: pupillus sine consensu tutoris, non obligatur.

The last two examples are legal, drawn from Justinian's *Digest*.³¹⁵ These are similar in the sense that they are generally to be upheld as law with some exceptions, but the reason that there are exceptions to these rules is that circumstances vary, not because of the balance of humors in a certain set of people. The legal examples are different also in that they are not descriptive, but normative; they are meant to be applied. It is in the context of their normativity or practical orientation, that is, their applicability, that they are meant to hold for the most part and not without exception.

It is clear that Scherb was most impressed with such "for the most part" thinking from his experience with medicine. He thought of Hippocrates's aphorisms as having such status, and he did not wish such aphorisms either to be applied without exception or to be removed from medical theory. "Indeed it is the height of art to know when in such arts to retreat from art because of some urgent circumstance," wrote Scherb.³¹⁶ To his mind, it was madness to insist that medical knowledge (and knowledge more generally) be restricted to statements which could be universally quantified.³¹⁷ One of the keys to

³¹⁵ *The Digest of Justinian*, ed. Theodor Mommsen and Paul Krueger, trans. Alan Watson (Philadelphia, 1985). 13.5.1.2: De pupillo etsi nihil sit expressum edicto, attamen sine tutoris auctoritate constituendo non obligatur. 19.1.13.29: Si quis a pupillo sine tutoris auctoritate emerit, ex uno latere constat contractus: nam qui emit, obligatus est pupillo, pupillum sibi non obligat. On depositum, 16.3.

³¹⁶ Scherb, *adversus Ramistas*, pp. 17-20: In talibus enim artibus interdum propter aliquid urgens ab arte recedere, summa ars est.

³¹⁷ Scherb, *adversus Ramistas*, pp. 17-20: Quos si tu, propter tuum *κατὰ παντός* velles Medicis e manibus extorquere, nae illi te non scabiosum tractarent, quomodo ego, sed ut fruiosum, vinculis & compedibus constringi iuberent ("If you wish to wrench these from the hands of physicians because of your *κατὰ παντός*, then they should treat you not as one afflicted with scabies, as I do, but they should order that you be restrained in bonds and shackles like as a madman").

progress was to distinguish between situations which require a universal approach and situations which require a “for the most part” approach.³¹⁸

The issue at hand is more clearly identified in a discussion of Ramus and demonstration in Cornelius Martini’s *Commentariorum logicarum adversus Ramistas*, written around 1596. Martini (1568-1621), a professor of logic in Helmstedt, noted that Ramus did not think much of the doctrine of demonstration and so totally omitted it from his *Dialectics*, though he said something about it in his logic, since he did not want people to think he was completely insane.³¹⁹ Among other difficulties, Martini noted that Ramus did not admit that there can be true particular, contingent, or for the most part, propositions.³²⁰ So in medicine, Ramus claims that the proposition “Blood vessels of some pleuritics should not be cut,” is false because it is particular.³²¹ Martini thinks that this is a particular proposition, but a true one. In his view, Ramus defined truth too narrowly. Again, this shows the concern over the definitions of science. The kind of particular proposition that Ramus wished to exclude from science, that the “blood vessels of some pleuritics should not be cut” is precisely the sort of empirical knowledge that we would think one would want in a science. Ramus’s understanding of science fit well with

³¹⁸ Scherb, *adversus Ramistas*, pp. 17-20: Illud persequuntur scientiae accuratiores, hoc eae, quae molliori brachio suas res demonstrant. Discamus paulatim distinguere, & gradum faciemus ad sapientiam.

³¹⁹ Cornelius Martini, *Commentariorum logicarum adversus Ramistas* (Helmstedt, 1623), p. 411: de Syllogismo Apodictico non intellexerit Ramus, eoque totam omiserit in suis Dialecticis libris; tamen hanc de notis Apodicticis doctrinam infarcire voluit suis Logicis, ne omnia e suo cerebro desumsisse videretur.

³²⁰ Martini, *adversus Ramistas*, pp. 417ff: neque particulares enunciationes, neque contingentes, etiamsi ut plurimum sint contingentes, ad aliquam harum convenire possunt, an omnes tales falsitatis, injustitiae & stulticiae condemnet.

³²¹ Martini, *adversus Ramistas*, p. 418: Puta an in Medicina, quam ille non iverit inficias aterm ess, hanc enunciationem, *aliquibus Pleuriticis vena non est secanda*; dixerit esse falsam; quia particularis est,...particularis enim est utraque tamen verissima. Nimis ergo angustam veritati legem fixit Ramus.

Melanchthon's ideal of a demonstrative science, which is why their methodological writings were so often synthesized in the sixteenth and seventeenth centuries.

Henning Rennemann (1567-1646) replied to Scherb on behalf of Ramus.

Rennemann attended Helmstedt and then held various posts as a schoolteacher, taught law at Erfurt, and held various civic positions including sheriff of Erfurt.³²² Rennemann claimed that Scherb had calumniated Ramus, that Ramus and the Ramists would allow for principles which had certain exceptions, but "he excludes all those principles which are uncertain and contingent to which certain and fixed exceptions cannot be attributed, but are now true, now false."³²³ And he further explained that these rejected contingent principles include the principles of physiognomy and other medical principles based on multiple signs.

Rennemann also replied to Scherb's counterexamples that were meant to suggest that there are obviously and intuitively "for the most part" quantified propositions which are true. So, the principle "deposits are always to be returned" is true universally (*de omni*) according to Rennemann, but it assumes a depositor. The obvious exception to the principle is in the case of a madman, who is not a true depositor since without the ability to reason he is considered absent. Rennemann considered all physiognomic principles to be false in so far as they are not *de omni* and so do not belong to science or art, but to prudence. Scherb was overstating the case when he claimed that Ramus and the Ramists

³²² Zedler, s.n.

³²³ Henning Renneman, *Responsio apologetica ad dissertationem pro philosophia Peripatetica adversus Ramistas a dn. phil. Scherbio...promulgatam* (Frankfurt am Main, 1595), p. 59: Quid igitur obstat; quo minus praeceptum tolerari possit in arte, per certas exceptiones confirmatum. Excludit autem omnia: quae sunt incerta, & contingentia: quorum exceptiones certae, & constantes dari nequeunt: & quae modo vera, modo falsa sunt. Quo Medicorum plurima signa referuntur, & physiognomica per te allata: quae licet usum habeant; artis tamen praecepta, quae semper certa, fieri non debent.

would wrench such aphorisms out of the hands of physicians. They would not—said Rennemann—but they would restrict them to manuals of practice. All such contingent aphorisms are matters of experience and so belong to experience and prudence, not to science or art.³²⁴

This is of course a genuine disagreement between the Peripatetics and the Ramists, and all proponents of a human science for the next few decades thought that they needed to face these objections and argue that a science of contingent propositions is in some sense possible. The opponents of the Ramists are here called “peripatetics,” since this is what they called themselves, but they were as much Galenists as followers of Aristotle, and the Ramists may even have had been more justified in considering themselves the heirs of Aristotle in this matter of confining such contingent statements to prudence. Aristotle argued that future contingent statements were neither true nor false and present contingent statements, such as “all sheep have four legs” are true with exceptions; this is consistent with the Ramist claim that there are general principles with exceptions, though their exceptions are fixed and constant which is not the case with the Aristotelian freaks of nature, or τέρας.³²⁵

Scherb argued not only that “for the most part” propositions were a helpful part of science but that there could be causal argument in politics. Scherb’s case for causal

³²⁴ Renneman, *Responsio apologetica*, p. 60: *Depositum est semper reddendum* deponenti: si vel per se, vel per aliud repetat. De omni hoc verum deposito: deque omni deponente. Nec onstat objectio de furioso: hic enim repetere non potest: cum ratione careat: & pro absente habetur. Ex adverso vero: *Quicumque sunt ruffi...* & similia: non sunt *κατὰ παντός*; nec idcirco praecepta constituunt: quia non semper vera sunt: nec illa, quae delirant, certis exceptionibus a regula tolli queunt. Quid igitur de his fieri debet: suntne ad orcum condemnanda? Bona verba quaeso. Nemo Rameorum condemnavit huiusmodi Regulas; nemo *ex Medicorum manibus extorsit...* extra artem vero prudentiae artificis, in usu, talia relinquere: vel seorsim, notis atque commentariis artium commendare...Retineto igitur tibi tuos aphorismos, per Ramistas, sed ita, ut illos non scientia: *sed prudentia*, ut ipsemet fateris; *oculis* adspicias.

³²⁵ Aristotle, GA,769b30, 773a3.

argument appears in the context of a discussion of the Ramist claims that there is only one method. Scherb asserted to the contrary that there are differences between apodictic, dialectic, and rhetorical disciplines. Political argument belongs to rhetoric, as was traditional in late scholastic literature, but Scherb argued that there was a place for the knowledge of causes in rhetoric.³²⁶

Indeed a place for causes is attributed to the orator in the second book of the *Rhetoric*, though they use less certain [arguments] than the dialectician, perhaps because the orator deals with civil and better known subject matter and looks to fortune, place, time, and person, in which things in particular cases the causes do not escape the notice of the popular auditor. Indeed since Rhetoric is the minister of civil science, and Dialectic is more concerned with the knowledge of things, and since causes in theoretical matters are outside in the matter, where in politics they arise from us, it is no wonder that even common men can easily understand such causes.³²⁷

Scherb claimed here that the popular auditor can understand causes in political matters because they arise from us, that is, presumably as the authors of such actions. There is no distinction here between decision makers and others, between mass and elite, though as we have seen this was a matter of some debate in Florence in the previous century. For Guicciardini, as we have seen, the *popolari* do not have such knowledge of causes because they are not privy to decision making. Rather there are vague echoes here of Machiavelli's claim that the people are not deceived in particular cases. But let us

³²⁶ Umberto Staico, "Retorica e politica in Egidio Romano," *Documenti e studi sulla tradizione filosofica medievale* (Spoleto, 1992), III, pp. 1-75.

³²⁷ Scherb, *adversus Ramistas*, pp. 65-66: Oratori quidem, qui caeteroquim minus firmis utitur, quam Dialecticus, attributus est locus causarum 2 Rhetoricorum: fortassis, quia versatur is in materia civili & notiori, & spectat fortunam, locum, tempus, personam: in quibus de rebus singularibus causae non ita fugiunt auditorem popularem. Quoniam enim Rhetorica ministra est civilis scientiae, Dialectica autem magis adhibetur ad rerum cognitionem: & causae in theoreticis sunt extra in rebus: in politicis vero oriuntur a nobis, mirum non est, si homines etiam plebeii, causas tales facile comprehendere.

postpone for the moment whether there was an ideological dimension to this argument until we have finished considering Scherb's view and Rennemann's response.

Rennemann replied effectively to Scherb's provision for causes in rhetoric—and the crucial extension for us—in politics. Why, Rennemann, asked, if Scherb admits that the orator uses less firm arguments does he attribute a place for causes in rhetoric?

Cannot [the orator] put forward apodictic propositions if they serve his teaching? Imagine that the orator of the emperors in the courts of the Roman empire is exhorting the princes to support the Turkish war. Imagine the orator of the princes exhorting the emperor to reform litigation in the empire. What do you think? Can it be that it is only statements of opinion and matters even more uncertain than some opinion that may be put forward for the sake of his argument?³²⁸

Rennemann's argument may strike us as disingenuous. It is a clever tactic to argue that one would use the strongest argument one had available, and so in this case to argue that the orators would use demonstration if it were possible. The difficulty with this view is that it suggests that the "strongest" argument is the same whether it is aimed at convincing people or arriving at scientific knowledge. There is no reason to believe that this is the case.

Rennemann concluded, following Ramus, that there is only one method. The debate then about the nature of political knowledge takes place partly in a debate over the unity of method. Scherb seems to want to argue that there is real political knowledge, but to do so, he says that it is only of singular cases here, though perhaps that is only because

³²⁸ Renneman, *Responsio apologetica*, pp. 199-200: Non proferre potest apodictica, si suo serviant instituto? Finge Caesareum oratorem in imperii Romani comitiis hortari principes, ad suppetias bello Turcico ferendas. Finge principum oratorem hortari Caesarem, ad processum litium in imperio reformandum. Quid putas? Hiccines pro confirmatione suae sententiae proferre valet tantum res opinabiles: immo quavis opinione debilibores? quas ut probabiles reddat *vafris quibusdam machinamentatis* uti necessa habuerit? Nullo modo: quin potius, ut sunt gravissimae causae: sice etiam gravissima rationum momenta, & necessarias valebit adducere causas ex ipsa rerum & circumstantiarum natura: quibus non opinionem modo multo minus opinione quiddam levius: sed ipsam necessitate potuerit principum coronae & maiestati Caesareae persuadere.

this is the popular auditor. But the closer Scherb comes to saying that there is genuine political knowledge, the closer he comes to saying that there is a unity of method, and agreeing with the Ramists. It is a very fine line then which Scherb was trying to defend.

It is not entirely clear why Scherb wished to argue for scientific knowledge in politics. It is clear that this was a concern of his, as we have seen, since he argued both that there was causal argument in politics and that contingent propositions could be true.

If there was an ideological dimension to Scherb and Rennemann's debate, it was extremely subtle. Whatever "democratic" implications there are from Scherb's statement that the popular auditor can easily understand causes, are balanced by the fact that the Melanchthonian project of a demonstrative basis of political obedience can barely be thought of as democratic. Rennemann was a civic minded man, a sheriff of Erfurt, as was mentioned, and it is likely that both he and Scherb shared a similar Lutheran civic outlook. They may have been divided over academic politics. It might be that Rennemann the Ramist sided with the Pfaffrad-Hoffman camp who insisted on Lutheran orthodoxy and Ramism at Helmstedt, while Scherb may have been affiliated with the Caselius-Calixt side, which favored a more liberal theology and a purer Aristotelianism. But, neither Rennemann nor Scherb were theologians, and the opposition here might have more to do with Rennemann having been a schoolmaster for decades, while Scherb was a professor of medicine of the Galenist stripe.

Besides his positive arguments for scientific knowledge in politics, Scherb distinguished a science of politics from political empiricism. In doing so, he encapsulated a complaint that was to appeal to those with a scientific view of politics for a generation.

Political empiricists are those who indeed have skill and experience of civil affairs, but do not perceive their causes, to whom are to be compared those people

who have arrived at the knowledge of what to do, but are lacking in experience of these things, but who nevertheless without a doubt surpass by far the political empiricists. It is clear, however, that empiricists of this kind are not true political men because they are unable to teach others civil science. To teach indeed is to bring out the causes of a thing, which since they [the empiricists] do not have a hold of, they are barely able to teach others. [Only] one who knows something can make another a knower of that thing. The empiricist cannot reproduce another empiricist.³²⁹

This complaint is transferred more or less wholesale from medicine, where there had long (in fact from the time of Galen if not earlier) been hostility towards empiricists, for all the reasons given by Scherb above. Scherb was a known Galenist in his medical work, and studied in Basel (in the 1570s).³³⁰ Indeed, elsewhere in Scherb's *De Natura Politica*, he says that medicine is very similar to politics, though his reasons for saying this relied more on what we might think of as medieval analogies: more the humors and bodies and diseases than the fully worked out analogies between procedure and the philosophy of explanation that we will see in Conring.

Duncan Liddel, a professor of medicine at Helmstedt, claimed that as Galen had argued before him, there was a place for demonstration in medicine after the causes had been collected through the resolute method of studying effect from cause.³³¹ This seems

³²⁹ Philipp Scherb, *De natura politica* (Frankfurt, 1608), §. 43, pp. Br-v: Empirici Politici sunt, qui peritiam quidem & usum rerum habent civilium, sed earum causas non perspiciunt, cum quibus coniungendi sunt, qui cognitionem quidem rerum gerendarum adepti sunt, sed usu earum destituntur, qui tamen proculdubio politics empiricis longissime praestant. Eiusmodi autem Empiricos veros Politicos non esse ex eo manifestum est, quia alios civilem scientiam docere nequeunt. Docere enim est causas rei affere, quas cum illi non teneant, aliis praecipere minime possunt. Sciens alterum potest scientem efficere. Empiricus alterum empiricum reddere non potest.

³³⁰ Philipp Scherb, *Theses medicae collectae et editae* (Leipzig, 1614).

³³¹ Duncan Liddel, *Ars medica* (Hamburg, 1608), p. 20: Verum cum morbus sit accidens, in subjecto erit, & propriam inhaerentiae casusam habebit. Quibus omnibus resolutiva methodo inventis regrediendo per compositionem affectio quaevis de suo subjecto per causam proximam demonstratur. Et haec demonstratio positu terminorum a definitione causali illius affectionis tantum distinguitur. Hoc itgitur modo, omnium affectionum in humano corpore cognitio, per demonstrationem invenitur & explicatur, ut Galen 1 Meth. & passim alibi postulare videtur.

to be basically the *regressus* method of Zabarella, which might make sense since there was supposed to be a considerable reception of Zabarella in the North, including in Helmstedt.³³²

Liddel in a traditional Galenist approach to the subject of medicine reviewed the main schools or sects of medicine, adding the Paracelsists to the traditional lineup of the empiricists, methodists, and dogmatists. Liddel's characterization of the empiricists corresponded closely to Scherb's characterization of political empiricism. Medical empiricists only believe in observation, but knowing that a single individual cannot observe the entire course of a disease, they write histories or narratives. Their method is that of imitation, employing a remedy which was successful in a similar case.³³³ At the end Liddel takes the position mentioned by Conring that when faced with a new affliction the empiricists have to apply their rules to similar cases; that is, they have to retreat from their pure empiricism.³³⁴

What is surprising is that given this view of political empiricism, Scherb has a very traditional view of teaching politics, which is not based on abstract principle at all:

The path however or way of teaching is seen in the teacher not in the student. In the teacher there is *paideia*, in the student there is only the faculty or potential of it. The way of teaching politics as in all arts is taken from the *Analytiks*: We learn the *tropon politikon* from histories, and those things in which there is experience. Therefore the teacher of politics in a scientific way ought to teach and present the

³³² See Mikkeli, Petersen, etc...

³³³ Liddel, *Ars medica*, p. 10: Ac semper quod quisque conguessit *ἀποψίαν*, quam definierunt memoriam eorum quae saepe eiusdem modi visa sunt: Idem quoque experientiam nominarunt, eiusque narrationem, historiam. Quod enim ei *ἀποψία* est a uo aliquid observatum fuit, idem alteri est historia qui illud didicit. Historias autem sive aliorum experimenta didicerunt & descripserunt imitationis gratia, ut in omnibus morbis remediis abundarent: Nam uni Medico impossibilis videtur in omnibus aegris concursum signorum observare.

³³⁴ Quia autem evenerunt saepe affectus incogniti, quorum explorata illis non erant remedia, instrumentum excogitarunt, transitum ad similia.

memories of past events and the experience of present life accommodated to his student. And all things which he teaches of life, especially in the present, he should illustrate with examples, so that he does not through hopeless ambition present them as far from necessary and remote from civil experience.³³⁵

The question is whether this identification is really fair to Lipsius and what he is trying to do in his *Politica*. Indeed, it does not seem that Scherb's recommendations on how to teach politics is terribly far off from Lipsius's method in the *Politica*. Scherb writes that the method of teaching politics, like other arts, should be according to the analytic method, that is from effect to cause, though Scherb does not specify what he means here by analytic method. The political method is to learn from history and experience. He should teach the student with examples.³³⁶ Throughout this passage, Scherb alludes to the passage in the *Metaphysics*, where Aristotle discusses the proper method for metaphysics in contrast to natural science.³³⁷

Scherb and Piccart represent a transitional phase in the history of political science. They oppose the strict definition of science as an ordered set of universal propositions, but they still seem principally concerned with science understood as a way of teaching material and the knowledge of causes. They balance empiricism with theory but have not yet articulated what it would mean to have a partially empirical science of politics. There is no articulation of science as a logic of discovery as in Bacon and no sense of what that

³³⁵ Scherb, *De natura politica*, §. 50, Sig. B3 r-v: Via autem vel ratio docendi in doctore, non in id discipulo spectatur, in docente est PAIDEIA, in discipulo eius facultas tantum sive potentia. Modus docendi Politicam ut omnium artium sumitur ex Analyticis: τρόπον vero πολιτικόν discimus ex historiis, & in his rebus quae innusu sunt. Praeceptor igitur Politicae τρόπον ἐπιστήμης memoriae rerum praeteritarum & usui vitae praesentis accommodatum discipulo tradere atque proponere debet & omnia quae praecipit vitae, praesentis maxime, exemplis illustrare, nec committere ut pro nrccsariis aliena & ab usu civili remota per vanam venditet ambitionem, unde intelligimus, non cuiusvis esse, tam amplam atque difficilem provinciam in se recipere, cuiuscemodi est, se profiteri Reipublicae administrandae doctorem.

³³⁶ Scherb, *De natura politica*, §. 50, pp. B3r-v.

³³⁷ Scherb refers to the *tropon espistēmēs* of *Metaphysics*, 995a14.

would mean for political science. It is clear from the work of Liddel that an Aristotelian empiricism understood as a proper method or logic of discovery rather than simply an interest in observable phenomena of the form being used by Zabarella and Cremonini had already been adopted in Germany, but it had not yet been applied to politics. This would take another generation and would finally be accomplished by Hermann Conring.

Though Scherb's inclusion of "for the most part" propositions under the heading of science meant that politics now resembled natural philosophy more closely. Scherb did not assimilate politics to natural philosophy, rather he included the propositions of both natural philosophy and politics under the common heading of "for the most part" propositions. Scherb's main point is that they share the same logical structure and the same epistemological status, not that they share the same kind of explanatory structure. Yet Scherb appealed in some respect to material cause, as his examples from physiognomy in politics showed. But his inclusion of propositions from the law as "for the most part," which are presumably for the most part not because of intervening causes which impede natural processes or because men are born under different stars but because of the variability of human actions shows that he was not interested in wholly identifying politics and natural philosophy. In the next chapter, we shall see that the attempt to identify politics and natural philosophy most closely appeared in the context of astrology.

Chapter 4. Astrology and the causes of political change

In the last chapter we have seen how Melanchthon reintroduced the demonstrative ideal of science into the discussion of political science. In this chapter Melanchthon once again reappears as a signal character in the development of political science. Here Melanchthon the astrologer is considered rather than Melanchthon the dialectician or Melanchthon the moralist. In this guise too he contributed greatly to political science by applying a causal schema to political events in the framework of astrology. Besides Melanchthon, several other characters are introduced as partial or total critics of astrology, including the French lawyers Jean Bodin and Pierre Grégoire, and the professor of medicine at the university of Helmstedt, Henning Arnisaeus. While some of these men were critics of the supposed influence of astrology on politics, their story is not a story of the disenchantment of the world. All of them continued to believe in celestial influence of some kind, though not necessarily on political events. Today, over eighty years after the publication of the first volume of Lynn Thorndike's *A history of magic and experimental science* it is no longer shocking to learn that astrology played a "modernizing" role in the history of science. Nevertheless it remains something of a surprise, and this chapter tells the story of the surprising effect of astrology on the development of political science.

The general argument of this chapter is that the engagement with astrology shaped the nature of political science into a causal explanatory science. Both the proponents and the opponents of the application of astrology to political science played a role in this development. For the proponents, astrology offered a naturalistic causal explanation of

political change. The opponents, in defining their position against astrology, were forced to articulate more clearly what they took to be the causes of political change.

As we shall see in this chapter, the trend towards efficient and material causation was in keeping with the vogue of astrological explanation in politics. There is a general trend then to explain the success of political institutions based on the nature of men rather than on their goals, as was the case with Albert the Great. Melanchthon sometimes used nature in the Aristotelian sense of the perfection of man, but sometimes in the sense of the less than ideal character of man. It is his use of the less than ideal that opened the way to a political science based on efficient and material cause explanation rather than a political science of ethical principles based on the idealized nature of man. Melanchthon argued that a political science based on the idealized nature of man was no longer appropriate because the natural (in the bad sense) part of men had a greater influence on them after original sin and the fall of man. This means that modern empirical political science owes its plausibility for the early modern Christian mind to the doctrine of the fall. In keeping with this account of the limits of free choice, Melanchthon argued that there were supernatural, astrological, and diabolical causes of human action.

Melanchthon's conclusions reflect a general trend of limiting the influence of men's conscious political plans in comparison with prior generations. Naturally, Melanchthon and the other proponents of astrology took care to protest that they were preserving free choice, but their protestations to this effect make the direction of the trend even clearer.

The opponents of astrology represent a reaction to the denial of human agency and the reduction of politics to natural philosophy implied by the thinking of the astrologers. Jean Bodin is a transitional figure in this story, who is only a half-hearted

critic of astrology, and who significantly continued to think of regimes as natural beings, subject to natural influences. The full concerns of the critics of astrology are represented by Pierre Grégoire, who applied the Catholic criticism of astrology to politics, and who emphasized the importance of human agency. Even Grégoire though thought that the heavens affected politics, though simply not in a necessary fashion. Finally, Henning Arnisaeus represents a near total break with astrological influence. Arnisaeus however does not represent a full return to a political science of the kind that Albert developed, that is, a political science meant to be consistent with and to celebrate human choices. Rather, even while rejecting astrological and numerological influence, he has imbibed the notion of political science as a science of causes external to the agents.

Before turning to this story spanned by Melanchthon and Arnisaeus, I will briefly consider the debates over astrology in Florence which were largely unrelated to political science. There have been attempts to see in Machiavelli a political philosophy of astrology,³³⁸ and there is some evidence that later generations thought of him in this way, but when compared to the self-conscious and express discussions of the subject in the other authors considered in this chapter, most of his references to the heavens and to medical astrology appear to be metaphorical or poetic. In keeping with the findings of chapter two, Machiavelli does not emerge as a natural philosopher of politics who relied on astrology. As a result, he is only treated here briefly.

The widespread practice of horoscopes and astrological predictions in Florence precipitated a literary debate about the validity of astrology. The key critics of astrology were Pico della Mirandola (1470-1533) and Girolamo Savonarola (1452-1498), though

³³⁸ Parel, *Machiavellian cosmos*.

Savonarola conceived himself as simply a popularizer of Pico on this issue. Both authors adopted the mainstream Christian line on astrology and portents. Pico and Savonarola argued that astrology was contrary to the free choice of the individual and was based on faulty assumptions about nature, since it held that choice made by men were naturally caused by the influence of the stars. They argued that this was impossible because physical bodies could not influence spiritual or immaterial bodies such as the soul, which was the source of decision. According to standard Christian doctrine a virtue had to be voluntary to be virtue, and so astrology threatened the virtues by suggesting that they were determined by stellar influence. Pico argued against this view that the virtues were in the power of humans and that this was the case with political virtue or prudence as well, which he understood to be rooted in the education, talents, and choices of the individual.³³⁹ Pico and Savonarola thus established the terms of the debate—their writing framed the question of whether human action could be determined by the natural influence of the stars or whether action was based on free choice alone.

While Machiavelli's own attitude towards astrological influence is, as most issues in Machiavelli's works, somewhat mysterious, later generations thought that his works posed a threat to free choice and human agency. Anthony Parel argues that Machiavelli was more sympathetic to astrology than Savonarola and Pico. Machiavelli showed the influence of astrological thought in his assertions that the heavens governed wars and shifts in population, in his belief in signs and prodigies, and prophets, and his commitment to the notion of occasion which is very close to the astrological notion of a

³³⁹ Parel, *Machiavellian Cosmos*, pp. 18-21.

propitious moment in which to act.³⁴⁰ Machiavelli's grandson, Giuliani Ricci, noted that Machiavelli was licentious in all his writings as much for "blaming great personages, lay and ecclesiastic," as for "reducing all things to natural or fortuitous causes."³⁴¹ Parel, following Villari, suggests that Machiavelli's works were placed on the Index by the council of Trent because of his reducing all things to natural causes.³⁴² This shows how controversial the matter of explanation was at the time. The reduction of human action to natural causes was not simply a matter of methodological debate but of heresy as well. Participants in the debate were well aware that the methodological debate over the proper kind of explanation of political behavior carried with it a debate about human nature.

Francesco Guicciardini opposed prediction but not because he had an opposing anthropology. Guicciardini opposed prediction on the grounds that events were in themselves too unpredictable, not on the grounds that the free choice of the individual needed to be defended. Guicciardini thought that prediction was impossible due to the variability of fortune.³⁴³ In the *Ricordi*, he rails several times against astrology, but it seems that he commissioned an elaborate astrological study in 1516, called the *L'Oroscopo*, which is something of a puzzle.³⁴⁴ It may be that he changed his mind on the matter, since the first *ricordi* were not set out until 1528, but perhaps there is some other explanation. Regardless, the *ricordi* come out in full against prediction. Perhaps the

³⁴⁰ Parel, *Machiavellian Cosmos*, pp. 31-41.

³⁴¹ Parel, *Machiavellian Cosmos*, p. 9.

³⁴² Parel, *Machiavellian Cosmos*, p. 163 n. 34.

³⁴³ *Ricordo* 30. Cited in Rubinstein, "Introduction," p. 26.

³⁴⁴ Against astrology, see C 57, 207, cited in Rubinstein, "Introduction," p. 26. Kristen Lippincott, "Guicciardini e le scienze occulte. L'Oroscopo di Francesco Guicciardini. Lettere di alchimia, astrologia e Cebala a Luigi Guicciardini, ed. R. Castagnola (Review)" *Annals of Science*; Jan93, Vol. 50 Issue 1, p. 97.

most cited *ricordo* in this vein is C 58: “How wisely the philosopher spoke when he said: ‘Of future contingencies there can be no determined truth.’ Go where you will: the farther you go, the more you will find this saying to be absolutely true.”³⁴⁵ For Guicciardini, prediction is futile not only from the position of ignorance, but even if the past is considered. Trend lines and parallel circumstances are no help, since the future is dependent even on the smallest particular change.³⁴⁶

By the middle of the sixteenth century astrology was even more closely tied to politics, as interest in judicial astrology grew. The well-known astrologer Cyprian Leowitz (1524-1574) defined judicial astrology as that part of astrology which “treats of the beginning, mutations, and destruction of kingdoms, cities, and countries, etc... wherein is contained the judgment of peace, war, sects, religions, and the transactions of princes.”³⁴⁷ The predictions given by astrology are only probable. It is not blasphemous to have knowledge of future events which is traditionally reserved to God because such

³⁴⁵ Guicciardini, *Maxims*, no. C58, p. 56. The original reads: Quanto disse bene el filosofo: de futuris contingentibus non est determinata veritas! Aggirati quanto tu vuoi, che quanto più ti aggiri, tanto più trovi questo detto verissimo. *Ricordi*, p. 58, cited in Lippincott, p. 97. Also cited in Rubinstein, “Introduction,” p. 26.

³⁴⁶ C 114. Cited in Rubinstein, “Introduction,” p. 26. There are some contrary passages, which Rubinstein does not mention, such as B 114: “Past events shed light on the future. For the world has always been the same, and everything that is and will be, once was; and the same things recur, but with different names and colors. And for that reason, not everyone recognizes them—only those who are wise, and observe and consider them diligently.” This picture of recurrence, though, is directly contradicted by the teleological scheme of a *ricordo* in the same series, B 140: “The things of this world do not stay fixed. In fact, they always progress along the road on which they should, according to their nature, come to their end. But they move more slowly than we believe. We measure them by our lives, which are brief, and not according to their own time, which is long. But their movements are slower than ours—so slow, by their very nature, that although they move we do not notice it. And for that reason, the judgments we make concerning them are often wrong.” Perhaps by the C series, Guicciardini had completely settled in his own mind the impossibility of knowing the future? It is possible to square these passages if we assume that things change so slowly as to seem to stay the same, but only to the wise, and for other people they seem to be different? Or perhaps, he is writing about two different things here? Anyway, as discussed above, this is not the only tension or contradiction in the *Ricordi*.

³⁴⁷ Cyprian Leowitz, “An astrological catechism, fully demonstrating the art of judicial astrology,” trans. Robert Turner in his *Ars notoria, the notory art of Solomon* (London, 1657), pp. 139-168, pp. 141-2.

knowledge is very slight compared to God's full knowledge and God gave men understanding so that they might have some knowledge of the future. Leowitz distinguished between the uncontroversial natural foresight of political matters which the prudent man has from his observation of the present condition of things with the more controversial astrological knowledge. Astrological knowledge is useful in civil life because it allows people to prepare for wars or famine or pestilence in advance.

The astrologers produced genitures or natal horoscopes for their clients, including princes, based on the zodiac at their birth. The genitures accounted for their qualities and personalities and predicted their fortunes. They also included more obviously political claims such as Luca Gaurico's prediction, which later proved false, in a geniture for the Habsburg arch-duke Ferdinand that he would defeat the Turks.³⁴⁸

The practice of casting horoscopes did not necessarily undermine human agency. Thus the astrologer Ramberto Malatesta reinforced the traditional value of human prudence in a geniture produced for Francesco Guicciardini. Malatesta predicted dangers and illness on Guicciardini's travels. In the face of this prediction he did not however suggest resignation but the use of prudence. "But at the same time I warn you that when the time comes, you must be cautious and prudent to avoid some evil befalling you."³⁴⁹ In this case, the stars indicate what might happen; they are not a scientific explanation or a causal prediction.

The interest in astrology in northern Europe was fanned in part by the intense political situation of the time, in which Charles V, the Holy Roman Emperor was newly

³⁴⁸ Anthony Grafton, *Cardano's cosmos: the worlds and works of a Renaissance astrologer* (Cambridge, MA, 1999), p. 123.

³⁴⁹ The geniture is cited and translated in Grafton, *Cardano's cosmos*, p. 118.

interested in combating Protestantism now that his battles with the Turks were over. The interest in political predictions—and predictions about political leaders—was of interest not only in the principalities of Germany but in the court of Queen Elizabeth, where her counselor John Dee and Thomas Smith collected horoscopes.³⁵⁰ The great astrologer Girolamo Cardano (1501-1576) produced a horoscope for the young King Edward of England, and Michel de Nostradamus produced them for two Habsburg princes.³⁵¹

From the astrologer's point of view, the politician was both a client and a subject of study. This dynamic is evident in a short work of Cardano's, entitled "A little book on asking questions," in which Cardano explained to the budding astrologer how to proceed. The first five questions are concerned with politics: How long will the king survive, what will the administration of the king be like, whether the kings will be friends, who will be the victor between warring kings, and will there be war. The informal flavor of the work is evident in the short discussion of how to investigate whether there will be war.

You should look first at the eclipses and the general arrangements of things (*constitutiones*) to see whether there is anything dangerous lying before the country. Then you should look at the natal horoscope of the prince, and how it is in direction, process, and ingress. And in comparison to other princes. And if the prince or the kingdom has Mars with the Sun there will be much war. If they are opposite, it will be sustained. If it is opposite to the moon, the country will suffer many seditions among the people and will be bloody. Also notice prodigies in the sky such as comets, and show not as all things, but as similar effects from the same cause in proceeding cases.³⁵²

³⁵⁰ Grafton, *Cardano's cosmos*.

³⁵¹ Grafton, *Cardano's cosmos*, p. 120.

³⁵² Girolamo Cardano, *Libellus de interrogationibus*, in *In Cl. Ptolemaei De astrorum iudiciis...commentaria* (Basel, [1578]), pp. 702-715, p. 704: Videas primo ab eclipsibus, & constitutionibus generalibus, an alia quid extitiale patriae praetendant. Inde etiam videas genesim principis, & quomodo se habeat in directionibus, processibus & ingressibus. Et in comparatione ad alios principes. Et si Princeps aut regnum habeat Martem cum Sole aget multa bella. Si in opposito sustinebit. Si in opposito Lunae multas seditiones in populo patietur, & erit sanguinarius. Animadvertite etiam prodigia de coelo ut Cometas, & ostenta, non ut omnia, sed ut effectus similes ab eadem causa procedentes.

Astrology was not out of keeping with the scientific teaching of the sixteenth century. Many professors of natural philosophy at the universities were also interested in natural magic and astrology.³⁵³ Part of a Christianized Aristotelianism, including Albert and Aquinas but also the Italian Aristotelian professors, was the belief that the celestial bodies mediated between God and the sublunary world in influencing change.³⁵⁴ It was argued by Pomponazzi that the working of astrology and the occult in general was confirmed by experience, an argument closely associated with science.³⁵⁵ Copenhaver makes the attack on natural magic to be part of the attack on peripatetic philosophy in general by Mersenne, Gassendi, Descartes, Thomas Hobbes, Kenelm Digby, Robert Boyle, and John Locke, because Aristotelian premises supported natural magic.³⁵⁶ While this may be true, in political science there was an attack on astrology at much the same time as these anti-Aristotelian critics from within the Aristotelian camp.

Melanchthon's main work on natural philosophy, the *Initia doctrinae physicae* of 1549, shows that Melanchthon not only thought that astrology was consistent with natural philosophy but that it played an important role in explaining political behavior as well. The work treats causes and astrological influence in depth, using many examples from history and politics. Melanchthon thus integrated his treatment of astrology and its influence on political behavior into the general causal and explanatory structure of his natural science. Thus it is through astrology that politics came to be considered a part of

³⁵³ Copenhaver, Brian P. "Did Science Have a Renaissance?" *Isis*, 83 (1992), pp. 387-407.

³⁵⁴ Copenhaver, "Did Science Have a Renaissance?" p. 399.

³⁵⁵ Copenhaver, "Did Science Have a Renaissance?" pp. 399-400.

³⁵⁶ Copenhaver, "Did Science Have a Renaissance?" p. 402.

natural philosophy. This is a remarkable fact in the development of political science as a science. From our point of view, political science became more like a science, if that means more like natural science, by means of what we now think of as a pseudo-science.

While Melanchthon was by no means an isolated figure among the Protestants, his enthusiasm for astrology was not hardly a universally accepted discipline among the Protestants. In fact it was a matter of some controversy even at Wittenberg, where the students were divided between Melanchthon's enthusiasm for it and Luther's stern opposition.³⁵⁷ Luther associated astrology with pagan practices and sympathized with the writings of the church fathers who opposed it as part of the general polemic against pagan civilization.³⁵⁸

Melanchthon's approach in the *Initia* was not a repudiation of the sort of science of politics he developed in his commentary on the *Politics*, but it does show that the science of demonstrating the ideal was held side by side with a science of analyzing actual human action. The *Initia* is consistent with the commentary in focusing on efficient causes and, compared to the medieval commentaries, greatly downplaying final causes. As we shall see, the next wave of Aristotelian political science would focus more on formal and material causes.

Melanchthon placed greater weight on the efficient cause for explaining human action than was traditional among Aristotelians. "A father loves his children not for the sake of his utility, nor regarding a final cause, but because of the natural impulsive cause

³⁵⁷ Claudia Brosseder, *Im Bann der Sterne: Caspar Peucer, Philipp Melanchthon und andere Wittenberger Astrologen* (Berlin, 2004), p. 257.

³⁵⁸ Brosseder, *Bann der Sterne*, p. 261.

of natural affection.”³⁵⁹ Efficient causes are divided into natural causes which must elicit the effect and behave in the same way and voluntary causes which may or may not be done and may be done in a variety of ways. Voluntary causes are chiefly the movements of the free will. So, also Melanchthon makes room for a special efficient cause of human action, the consultative, by which someone is impelled to do something by being convinced to do it. So Themistocles persuaded the Athenians to leave their city and defend Athens using their navy. This analysis is different from a traditional interpretation whereby deliberation or counsel was explained in terms of reasoning about the means necessary to achieve some final cause, not in terms of an efficient cause. The understanding of even deliberation, the virtue of which was prudence, in terms of efficient cause shows the distance which Melanchthon has traveled from the traditional way of speaking about political knowledge. Even the traditionally most practical component of political knowledge, deliberation, is here said to be subject to analysis in terms of cause and effect.

Several efficient causes may interact at different levels of explanation or causality. In one of his examples, Melanchthon explained how he thought of the will as the most important but not the only cause of human action. “That cause is called principal, which does more, and without which the others would do nothing, as in Antony, the principal cause of adultery is the will. The secondary cause is his

³⁵⁹ Melanchthon, *Initia doctrinae physicae*, in CR, XIII, p. 313: Pater amat natos, non utilitatis suae causa, nec spectat finalem causam, sed causa est impulsiva naturalis *στοργή*.

temperament in which some position of the stars kindles his desire like a fire. Finally the gluttony and the depraved conversations are the external instrumental causes.”³⁶⁰

He applied this multi-tiered causal structure to politics as well. So he wrote that the remote cause of the civil war between Judea and Israel was the lapse of Solomon. Or the interior cause of the civil war at Rome was Julius Caesar’s desire for the principality, while the external “irritating” cause was the seizure of the consulate by Pompey. This causal structure mirrors that of the natural world. Just as the Roman civil war had an interior and external cause, so a fever is caused by an underlying internal build-up of red bile, and then may be brought on by too much agitated movement, which contributes to red bile.³⁶¹ This irritating cause is similar but not the same as an occasion, as in Melanchthon’s example where the cause of Philip of Macedon’s war with the Greeks was his lust for empire but the occasion was the defense of the temple of Delphi.³⁶²

According to Melanchthon, the stars have a necessary effect on human disposition. Melanchthon distinguished between *per se* and *per accidens* causes. *Per se* causes are causes which when present entail the effect and which are necessary for the effect. A *per accidens* cause is a non necessary cause. Melanchthon thought that the stars could be *per se* causes of health, talents, and inclinations to various actions, including seeking after honor, combat, and danger. He believed that the natal horoscope set the character of men to some extent, including princes. This was consistent with

³⁶⁰ Melanchthon, *Initia doctrinae physicae*, in CR, XIII, p. 310-11: Dicitur autem principale, quod plus agit, et quo non agente, ceterae nihil efficiunt, ut in Antonio *αἴτιον* et principalis causa est adulteriorum, voluntas. *συνάτιον* temperamentum, in quo stellarum positus aliquis, inclinationes ad libidinem, tanquam incendia exuscitat. Deinde externa, helleuones, et conversationes pravae sunt *σύνεργα*.

³⁶¹ Melanchthon, *Initia doctrinae physicae*, in CR, XIII, p. 312.

³⁶² Melanchthon, *Initia doctrinae physicae*, in CR, XIII, p. 314.

Melanchthon's views that the effects of the stars were natural and that inclinations or temperaments, such as that Josquin has an inclination for music, are natural. "For that inclination cannot be made by art, neither in Josquin, nor in others."³⁶³ Even without natural inclinations or talents one can learn to do something but it will not come as easily.³⁶⁴

So, Melanchthon explained the character of the French king Francis I (1494-1547; reigned 1515-1547) based on his horoscope. Francis was said to be a unsuccessful warrior because he was born when Mars was in the fourth house, in an unfortunate position (*loco abjecto*). His capture by Charles V at the Battle of Pavia in 1525 was predicted (or retrodicted) by the appearance of the Dragon's Tail, that is, the Southern Node of the moon, or the place where the moon descends below the plane described the orbit of the earth around the sun, in the middle of the sky.³⁶⁵

Melanchthon thought that astrology was useful for politics, since it allowed one to predict some political and economic events, and because it allowed rulers to choose to modify their actions in light of the knowledge that astrology provided about their own and their enemies' qualities. According to Melanchthon, Frederick III of Austria (1415–93), Holy Roman emperor (1452–93), decided not to fight Matthias I of Hungary, because he knew that Matthias was felicitous in warfare, while he himself was not since Mars was in a infelicitous position at his birth.³⁶⁶ In general, Melanchthon thought that

³⁶³ Melanchthon, *Initia doctrinae physicae*, in CR, XIII, p. 303: Nam inclinatio illa non potest effici arte, neque in Iosquino, neque in aliis.

³⁶⁴ Melanchthon, *Initia doctrinae physicae*, in CR, XIII, p. 306.

³⁶⁵ Melanchthon, *Initia doctrinae physicae*, in CR, XIII, p. 326.

³⁶⁶ Melanchthon, *Initia doctrinae physicae*, in CR, XIII, p. 345.

astrology was useful to princes as to private individuals so that “they are not ignorant of the inclinations and dangers which both the stars and their passions suggest, and so that they restrain rapid steps with wisdom and moderation of mind.”³⁶⁷

Astrology for Melanchthon was part of a causal world which went beyond that of perceptible causes and which explained more of the irrational or random than we are accustomed to, leaving only a small reservoir to randomness. Events which are referred to fortune, and so appear to occur without any cause, explained Melanchthon, are often due to the interference of God and his angels, wicked spirits, temperaments, inclinations from the positions of the stars, one’s individual customs or habits, and the variability of the material being studied. Significantly, his examples center around politics. “And the great part of the most sad events of all human kind arise from the Devil, who strengthens the madness of the wicked, as when he sharpens and increases the cruelty of tyrants, many of whom have killed parents, brothers, children and wives without any reason, as Selim, the Turkish emperor killed his father and brothers.”³⁶⁸ Melanchthon insisted that this was the work of the Devil, because his general view of the world implied that individuals love their relatives. “It is certain that this madness arises from the Devil,

³⁶⁷ Melanchthon, *Initia doctrinae physicae*, in CR, XIII, p. 345: ita reipublicae prodest gubernatores non esse ignaros inclinationum suarum, et periculorum, quae ipsis et astra et sui impetus denunciant, ut rapidos motus sapientia et moderatione animi coerceant.

³⁶⁸ Melanchthon, *Initia doctrinae physicae*, in CR, XIII, pp. 322-3: Et magna pars tristissimorum eventuum in toto genere humano principaliter oritur a Diabolo, qui furores in impiis confirmat: ut cum in tyrannis acuit et auget crudelitatem, quorum multi sine ulla causa parentes, fratres, liberos, coniuges interfecerunt, ut Selimus imperator Turcicus patres et fratres interfecit. Selim I, also known as Selim the Grim, (1467–1520) ruled as the sultan of the Ottoman empire from 1512–20. He did not actually kill his father, Beyazid II, but deposed him and he died shortly after. He did kill his brothers, but he was in the midst of a religious civil war. Selim was a Sunni, his brother Ahmed was Shia.

because every person's nature is so ruled by natural light and affection that he desires his own preservation and loves his relatives."³⁶⁹

Melanchthon distinguished between astrological and magical predictions and between astrological and diabolical or demonic influence. As we have seen, he considered the astrological natural and so part of science. The magical and demonic were efficacious, but not natural. Melanchthon thought that astrology, as part of natural philosophy, could be explained according to his usual theory of natural philosophy and the usual metaphysics and physics. The phenomena which he attributed to supernatural explanation he did not think could be so explained.

Melanchthon's understanding of diabolical influence on politics and human action more generally can be distinguished from the theories of natural magic prevalent in the sixteenth century. Such theories posited magical or occult explanations when there was no natural explanation that could make sense of the observed phenomena or a reportedly observed phenomena, related in a work on natural history or by word of mouth. So, for instance, the Platonist, physician, and humanist Marsilio Ficino, unaware of electricity, thought that the ability to shock whoever touches it of the fish which he knew as the "torpedo" and which we know as the ray, was magical.³⁷⁰ While it is true that Melanchthon had recourse to supernatural explanation in the political context because he thought that there was no natural explanation available, the example of Selim I shows that this was because Melanchthon had a very particular view of the natural affections

³⁶⁹ Melanchthon, *Initia doctrinae physicae*, in CR, XIII, p. 323: Hos furores a Diabolo oriri certum est, quia quaelibet natura, donec naturali luce et adfectu regitur, sui conservationem appetit, et amat cognatos.

³⁷⁰ Brian P. Copenhaver, "Natural magic, hermetism, and occultism in early modern science," in *Reappraisals of the Scientific Revolution*, eds. David C. Lindberg and Robert S. Westman (Cambridge, 1990), pp. 261-301, pp. 277-8.

and thus the natural behavior of men. Thus while in a sense Melanchthon's recourse to supernatural explanation was in keeping with the paradigm of natural magic, since he attributed to a supernatural explanation that which could not be explained by his view of the natural behavior of men, it is not exactly in keeping with our view of the function of magical explanation in the early modern world to rationalize or make sense of the otherwise unexplained.

The possibility should perhaps be entertained that the parallel between diabolical behavior and magical wonders of nature was taken seriously. If this was the case then all instances of fratricide or parricide, for instance, would have to have been understood by Melanchthon to be wonders or curiosities or aberrations of nature. Melanchthon could then be said to have introduced diabolical influence as a causal placeholder in the same way that occult influence was meant to explain the power of the ray to stun. This reading is possible, but it seems that Melanchthon was more concerned with preserving the integrity of the concept of natural affections than with explaining exceptions in his theory of natural human behavior.

It is here that the connection between Melanchthon's work in his commentary on the *Politics* and his other writings on ethics and politics can be brought into apposition with his views of astrology and causation in the *Initia physicae*. Melanchthon thought that conclusions about human behavior could be demonstrated from premises about natural law which are at once descriptive and normative. They are descriptive because they are based in our natural impulses and affections, and they are normative because such impulses and affections were given to us by a benevolent God. After the fall of man,

however, such conclusions are no longer predictive and the natural impulses and affections may be overcome by our individual weaknesses and diabolical interference.

Melanchthon does reserve a space for free will. One can struggle with one's inclinations and temperaments given by the stars, especially if one has knowledge of them. "So the wise man helps with his mind the power of the heavens, just as a good farmer helps the earth with his husbandry."³⁷¹ And one may even struggle with the inclinations and desires imposed by the devil. "The proper cause of Paris's abduction of Helen was not the stars but their wills. For the Devil impelled them. Paris's will could however have restrained itself and commanded its limbs not to abduct another. And Helen could have resisted and commanded her limbs..."³⁷² Resistance to the influence of the stars and the Devil however is more difficult for the wicked, and for everyone after the fall of man.³⁷³

Melanchthon argued that God approved of astrology though not of diabolical means of divination. This approval can be broken up into an approval of the theory of motions, which is clear, since he gave man as gifts the arts of reckoning numbers and the stars and seasons, and divination, which is a more complicated issue, since it is clearly forbidden in some sense. Melanchthon distinguished between natural predictions which are governed by natural causes and effects and predictions which have no such natural

³⁷¹ Melanchthon, *Initia doctrinae physicae*, in CR, XIII, p. 344: Sapiens anima adiuvat vim coelestem, sicut bonus agricola cultura terram adiuvat.

³⁷² Melanchthon, *Initia doctrinae physicae*, in CR, XIII, p. 340: Quod Paris abduxit Helenam, non stellae, sed in utroque voluntas propriae causa est. Et voluntates accensas impellit Diabolus. Poterat autem voluntas in Paride revera se frenare, ac imperare membris, ne alienam abducerent. Et Helena adversari potuit, ac imperare membris, ne moechum sequerentur.

³⁷³ Melanchthon, *Initia doctrinae physicae*, in CR, XIII, p. 342: amissa luce et rectitudine, quae nobis in prima conditione donata fuit, et de materiae nostrae depravatione.

cause. There is no doubt that natural predictions of the kind that physicians make when inferring from one's pulse whether their heart was sped up by a great heat or slowed down are sanctioned by God. Melanchthon condemned magical or supernatural means of prediction, such as casting lots and auguries, the Biblical divination of Ob, incantations, or those in his day who consulted a crystal ball. These it should be noted are condemned not because they are false or without power, but because they consult demons and the devil. "These kinds are condemned, because they consult demons and are most foreign from things ordained by God."³⁷⁴

The response to the use of astrology in politics

The French lawyer and political theorist Jean Bodin, best known for developing the theory of state sovereignty, was just as interested as Melanchthon in inquiring into the causes of political change. He too thought that there were natural impersonal causes of political change. His criticism of astrology in his *Six books on the commonwealth* (1577) was in fact is quite limited, based on the current practice of astrologers. Though unsure about the power of the stars strictly speaking to influence politics, he credited the conjunctions of planets as having notable influence over political events. Furthermore his defense of numerology, which he linked closely to natural processes, showed that he thought of political institutions as natural phenomena.

Jean Bodin denied that there could be any occurrences that were fortuitous, arguing instead that all human events were either by nature, divine providence or human will. Human will is so variable that matters dependent on it are unpredictable, and God's

³⁷⁴ Melanchthon, *Initia doctrinae physicae*, in CR, XIII, p. 338: *Damnatur autem hae species, quia daemones consulunt, et alienissimae sunt a rebus ordinatis a Deo.*

will is inscrutable and unless revealed by him unknown. This leaves natural causes. This shows that Bodin too, like Melanchthon, was part of a general movement towards the explanation of events and behavior. This striving for explanation shows that Bodin, like Melanchthon, were part of the Scientific Revolution, if it is understood in part as a movement to try and understand the world in causal terms.

Bodin distinguished between civil causes and natural causes. “For as a painter doth one way consider of a mans bodie, and the Physitian another: and the naturall Philosopher one way considereth of the mind of man, & the diuine another: so also the Polititian doth one way, the Astrologer another, and the diuine a third way, iudge of the change & ruine of Commonweals.”³⁷⁵ The natural, civil, and divine causes work together in an interesting way. Every regime has its natural lifespan according to Bodin, but this may be shortened by human choice and divine decree. Thus Bodin did not want to reduce all civil affairs to natural phenomena, but allowed for some political change based on constitutional design and legislation.

Bodin made several arguments against astrological predictions of regime change. The first is that astrologers are often mistaken even about their descriptions of the motion of the stars let alone the influence of those stars.³⁷⁶ The star that Cardano thought was responsible for the rise of the Roman Empire assumes the same position over many other countries, though they have not been great empires. Copernicus was incorrect in arguing that it was the eccentric motion of the earth which caused political change. He was incorrect either because the earth itself did not move, as Melanchthon argued on a

³⁷⁵ Jean Bodin, *The six bookes of a commonweale*, ed. Kenneth Douglas McRae (1606; Cambridge, MA, 1962), p. 437.

³⁷⁶ Bodin, *The six bookes of a commonweale*, p. 439.

scriptural basis, or because there must be one type of motion appropriate to the movement of the earth because it is a simple body and simple bodies have one motion which is proper to them. All other motion must be violent, but that is impossible, presumably because we would know if the earth was being moved violently. Thus Copernicus must be incorrect that the earth moves in three ways and so, without eccentric motion, he must be incorrect that such motion causes political change.³⁷⁷

Bodin did think that there could be some influence to the stars. This he saw in the conjunction of the planets, as in the great conjunction of 1524.³⁷⁸ “And again in the year 1524, when as the conjunction of the same superior planets, (yea twenty other conjunctions) had happened in Pisces, most great motions of the people ensued thereafter in many places in Europe: the people in arms against the nobility set all Germany a broil, in which war a hundred thousand men are reported to have been slain; the Rhodes by the Turks was taken from the Christians; Frederick, his brother Christierne being driven out of his kingdom possessed the kingdom of Denmark; Gustavus of a private man became the king of Sweden; Francis the French king, overthrown at Pavia was taken prisoner by the Spaniards.”³⁷⁹ He also thought that great political change occurs at the beginning of the year, which he argued was in the Autumn.³⁸⁰ Finally, he proposed a method of

³⁷⁷ Bodin, *The six bookes of a commonweale*, pp. 454-5.

³⁷⁸ The singling out of conjunctions was not idiosyncratic. The conjunctions were held since the time of Albumashar’s *De magnis coniuntionibus* to have a special status. Many Italian astrologers of the sixteenth century held that only conjunctions were tied to changes in universal history. Claudia Brosseder, “The writing in the Wittenberg sky: Astrology in sixteenth-century Germany,” *Journal of the History of Ideas* 66 (2005), pp. 557-576, p. 569.

³⁷⁹ Bodin, *The six bookes of a commonweale*, p. 448.

³⁸⁰ Bodin, *The six bookes of a commonweale*, p. 451.

improving knowledge of political change which is a matter of collating critical history with an accurate knowledge of the movement of the stars.³⁸¹

Bodin thought that the most accurate means of predicting the end of a regime was based on numerology, not astrology. He assumed, as was mentioned above, that all regimes had a natural lifespan. Numerology was useful in suggesting how long a regime might last and in what year it would end. For Bodin, there was a close connection between number and nature. “For why I think almighty God who with wonderful wisdom has so couched together the nature of all things, and with certain their numbers, means, measures, and consent, bound together all things to come, to have also within their certain numbers so shut up and enclosed commonwealths, as that there after a certain period of years once past, yet must they needs perish and take end, although they used never so good laws and customs.”³⁸² Bodin found definitive proof of the close connection between nature and number in the fact that the number seven is closely connected to the development of men and the number six to women. Men hit crucial stages of their development at seven and fourteen; women at six and twelve. One of the most dangerous times for men is their sixty-third year, when many perish, amongst the most famous of whom Bodin mentioned Melanchthon.³⁸³ Bodin thought that the male numbers, that is, multiples of seven, were dangerous years for regimes, usually measured from the foundation of the regime but sometimes from the birth of Jesus, and he brought many examples of regimes failing after a duration which is some multiple of seven. To take two

³⁸¹ Bodin, *The six bookes of a commonweale*, p. 450.

³⁸² Bodin, *The six bookes of a commonweale*, p. 457.

³⁸³ Bodin, *The six bookes of a commonweale*, pp. 460-1.

examples, he reported that it was 496—seven cubed—years from the election of Saul to the death of Zedekiah, and that it was 536 years, or 77 septenaries, from the foundation of Rome to the battle of Cannae.³⁸⁴

What does it mean that Bodin thought numerology to be the best means of predicting the fall of regimes? It confirms the notion that a scientific way of thinking is accompanied by a general conception or metaphysics about the world. Bodin thought that multiples of seven were predictive because there was close relationship between nature and number. It also means that for Bodin that cities were natural objects of a kind with their own natural lifespans. This was the case regardless of any efforts to make them more long lasting by legislation or institutional design. Given that Bodin thought that many regimes last around five hundred years, he must have thought that it was still worth the effort of trying to improve them. The number five hundred is based on the number 496, which is the third perfect number in the first hundred thousand numbers. A perfect number is a number which equals the sum of its divisors excluding itself, e.g. $1 + 2 + 4 + 8 + 16 + 31 + 62 + 124 + 248 = 496$.

The Catholic opposition to astrology began in the early sixteenth century as part of the general attack on the Lutheran views of the “unfree will.”³⁸⁵ Cardinal Cajetan (1469-1534) was the most important Thomist of his time and he took even a stricter view of astrology than Aquinas. Aquinas had held that the stars have an effect on our desires, but they do not necessitate our choices. Cajetan argued that any participation in astrological practice was strictly forbidden and that the stars had no influence on human

³⁸⁴ Bodin, *The six bookes of a commonweale*, p. 464.

³⁸⁵ Brosseder, *Bann der Sterne*, p. 283.

will at all. Both the orthodox Lutherans and the Catholics opposed judicial astrology, but for different reasons. The orthodox Lutherans thought that it diluted the importance of the will with earthly matters, while the Catholics thought that it threatened free will. In 1559 judicial astrology was forbidden by the Council of Trent. This had a limited effect at first. Astrologers merely printed their works in France and elsewhere outside of the Papal Territories. As a result in 1586, the Pope Sixtus V strengthened the ban in a bull specifically aimed at judicial astrology.³⁸⁶

The professor of law at Pont-a-Mousson in northeastern France and partisan of the policies of Trent, Pierre Grégoire (1540-1617), rejected the thesis that the stars influenced in his *De Republica* of 1596, a work which was widely cited at the time.³⁸⁷ Grégoire's opposition may have stemmed from his endorsement of the Council of Trent against Charles Du Moulin in 1584 and his opposition in general to the spread of Protestant doctrine in France.³⁸⁸ He was clearly aware of the astrological works of the Protestants at Wittenberg and there may have been a partisan aspect to his criticism of the kind of political science practiced there.³⁸⁹

Grégoire's partial opposition to astrology showed a concern for human agency in political science while also articulating more clearly than Melanchthon what natural causes of politics would look like. Grégoire employed several kinds of arguments. First,

³⁸⁶ Brosseder, *Bann der Sterne*, pp. 283-7.

³⁸⁷ Pierre Grégoire, *De republica* (1596; Frankfurt, 1609); Grégoire also treated in the issue of astrology in his *Syntaxes artis mirabilis in libros septem digestae* (Lyon, 1575), ch. 52.

³⁸⁸ On Grégoire's views of Trent, see Thomas I. Crimando, "Two French Views of the Council of Trent," *Sixteenth Century Journal* 19 (1988), pp. 169-186.

³⁸⁹ Grégoire cited Peucer and Camerarius (XXI.6.7, p. 777b), admittedly among many others, including most often Mizauld (e.g. XXI.6.1, p. 775b, 776a).

like Bodin, he argued that there was great uncertainty in astrology. Second, he argued in a traditional Thomist vein that the stars cannot necessarily cause one to act in a certain way. These arguments show that the preservation of free choice was in part a resistance to understanding humans as natural objects. It was important to Aquinas and Grégoire to preserve room for God's power as well, and not to say that the stars have unalterable effects. However, like Bodin, Grégoire thought that the celestial bodies did have some effect on human behavior. In explaining this indirect effect, Grégoire articulated clearly how the natural world could affect politics. This is important not only since it acknowledges that men are in some part natural objects, but also because the entire discussion shows that Grégoire understands cause fully in terms of efficient causality, of causes and effect. This is the case despite the fact that he is in the process of defending free will.

Grégoire distinguished between the natural causes of political change and the causes which were on account of persons and their administration of the commonwealths.³⁹⁰ The treatment of the natural causes concerns mostly the influence of the heavens though also other matters which threaten the populace, such as disease.³⁹¹ The analysis of political change from human agency more or less follows that of Aristotle in book five of the *Politics*. Thus he paid close attention to sedition, just like Aristotle.

Grégoire repeated Bodin's thought that it is natural that those things which have a beginning, also have an end, including commonwealths.³⁹² Just as natural bodies can die

³⁹⁰ Grégoire, *De republica*, XXII.1.1, p. 813a.

³⁹¹ Grégoire, *De republica*, XXI.1.1.3, p. 808a.

³⁹² Grégoire, *De republica*, XXI.1.1, p. 754b.

of internal or external causes, so too can principalities or republics. Internal causes include maladies such as injustices, seditions, vices, bad morals, and bad administration. Internal causes include invasion, as by the Huns, Vandals, and Goths.³⁹³ No one will deny, he wrote, that the causes of political change are in part due to the affections and sickness of men, since commonwealths are made up of men.³⁹⁴

His main quarrel is with those people who think that the heavens effect political change necessarily. "I should say therefore that signs, omens, prodigies indicate things in the future or the past but are not the causes of events, but indications as it were of them...as smoke is an indication that there is fire, and hanging ivy is not wine itself, but a sign that wine is for sale."³⁹⁵ According to Grégoire knowledge of the stars is not to be condemned and it includes the power to know the future within the limits set by God.³⁹⁶ Thus it is blasphemy to attribute necessity to their effects and not leave any power to God's power or man's prudence. And if it is admitted that a single individual can overcome his stellar fate, than a commonwealth should be able to as well, since it is composed of many individuals, including the prudent men who direct it.³⁹⁷

Grégoire's first major set of arguments stem from the uncertainty of the art of astrology and astronomy. There is no firm consensus among the astrologers as to the location of the stars. Second, some think that the sun moves around the earth, others that

³⁹³ Grégoire, *De republica*, XXI.1.4, p. 755a.

³⁹⁴ Grégoire, *De republica*, XXI.3.1, p. 760a.

³⁹⁵ Grégoire, *De republica*, XXI.10.2, p. 804a: "Dicam igitur signa, monstra, prodigia, significare quidem futura, aut praeterita, sed non esse causas eventuum, sed veluti indicia eorum...ut fumus est indicium, quod ibi ignis sit. hederam suspensa, non vinum quidem est, sed signum quod ibi vinum venale sit.

³⁹⁶ Grégoire, *De republica*, XXI.9.21, p. 796b.

³⁹⁷ Grégoire, *De republica*, XXI.9.16, p. 794b.

the earth moves around the sun. “Almost all agree that inferior things are ruled by superior, but what these are, and how, and for how long, and whether necessarily, whether always, and where, has not been concretely explained.”³⁹⁸ The disagreement between astrologers over all these issues is a sign that this is not something which can be understood or articulated by humans.³⁹⁹ “The same ignorance applies to the other celestial phenomena, which appear to us daily, but what their nature is, or what their powers or causes of their effects are, is not clear to us nor to the most expert mathematicians; we make judgments about the sun and its rays, and see its body, but what kind of thing it is, and what it is made of is not decided.”⁴⁰⁰ Moreover, even the most general empirical evidence shows that stars do not effect political change. For, Grégoire argued, if the rise and fall of kingdoms and kings were linked to the movement of the stars, they would rise and fall instantaneously with the rapid and erratic movement of the stars.⁴⁰¹

The uncertainty of the art of astrology is such that any such application to political matters should be rejected as vain and false. “Such astronomers and natal horoscopes of men and commonwealths should be banished from the commonwealth seeing that when published they incite the minds of simple men to dissension, conspiracies, treacheries,

³⁹⁸ Grégoire, *De republica*, XXI.9.1, p. 790b: Conveniunt omnes fere, inferiora regi a superioribus, sed quae sint illa, & quomodo, & quandiu, & an necessario, & an semper, & uni, non est expeditum definitie.

³⁹⁹ Grégoire, *De republica*, XXI.9.2, p. 790a.

⁴⁰⁰ Grégoire, *De republica*, XXI.9.10, p. 792b: Eadem ignorantia versatur in caeteris apparitionibus coelestibus, quae quotidie nobis quidem apparent, sed qualia sint, quaeve sint eorum vires, & causae effectuum, non planum nobis, nec peritissimis mathematicis est, statuimus solis & radios, eiusque corpus videmus, sed quale sit eius corpus, & quid sit, non constat.

⁴⁰¹ Grégoire, *De republica*, XXI.9.15, p. 794b.

defections, and rebellions, and they seem to instruct them to this which they had given no thought to beforehand nor would they have dared to have thought about them.”⁴⁰²

The most important arguments for our purpose are the Thomist arguments which Grégoire rehearsed to prove philosophically and theologically that the stars cannot *necessarily* determine human action. Grégoire, following Thomas, argued that if one thinks that the stars act on men so that they necessarily cause them to do wicked things, then that is blasphemy, making God out to be cruel, condemning people to act wickedly out of necessity. Moreover, he extended Aquinas’s argument that heavenly bodies were not the causes of our wills and actions, to politics, by arguing that political actions cannot be caused by them since they too are voluntary.⁴⁰³ Grégoire appreciated the importance of the preservation of free choice for the understanding of human nature as distinct from the natural world. Acceding to the necessary effects of astrology would eliminate free choice, thereby erasing the differences between men and plants and animals and so disgracing the gift given by God.⁴⁰⁴

Grégoire reviewed Aquinas’s nine arguments to show that it was not the case that stars affect the will. First, according to Aristotelian natural philosophy, nothing can be moved which lacks magnitude. But since the will belongs to the intellectual part of the soul, which lacks magnitude, it cannot be moved. The will receives no sensation from the stars, since to do so it would have to be corporeal. Second, all choice is based on an

⁴⁰² Grégoire, *De republica*, XXI.9.12, p. 793a: ipsos astronomos, & personarum & rerum publicarum genethliacos a republica esse pellendos, utpote qui ex istiusmodi eventus evulgais, ingenia hominum quae facilia sunt ad dissentiendum, ad coniurationes, proditones, defectiones, & rebelliones concitent, & instruere ad ea, de quibus antea nihil cogitaverint, nec ad cogitandum mentem intendere ausi fuissent.

⁴⁰³ Grégoire, *De republica*, XXI.9.18, p. 795a, quoting Thomas Aquinas, *Summa contra Gentiles*, III.

⁴⁰⁴ Grégoire, *De republica*, XXI.9.13, p. 793b.

apprehension of the intellect of the good, therefore the causes of our choices are in intellectual judgments, not the stars. Third, if it were the case that the heavenly bodies could influence our will, then we would act naturally according to sensation like animals, but that is not the case. Fourth, “If principalities and republics were made and undone by natural influence, everything of this kind would be done by certain means and in the same fashion, but they rise and fall in different ways.”⁴⁰⁵ Fifth, what is done naturally is almost always done correctly, since nature fails only rarely, yet many of commonwealths are born and end imperfect and chaotic. Sixth, virtues preserve commonwealths, vices corrupt them. But virtues are acquired not by nature, but by custom as Aristotle said. It is not corporal sensation that leads to good and bad choice, which are the essence of virtue. Seventh, why are not princes born under the same stars effected in the same way? And do not commonwealths under the same rays rise and fall at the same time? Eighth, if the heavens compel the will, then there is no philosophy, piety, arts virtue, nor fruit of labor, nor any need for punishment or warning of the wicked. Ninth, if everything is according to fate, then all religion and the power of God is subverted, and prayer, repentance, and fasting is in vain.

Grégoire argued not only that there was no necessary natural effect of the stars on human action, but also that there was no necessary supernatural effect.⁴⁰⁶ “Monsters, prodigies, lightning, comets, and such similar things, which are imperfectly called ‘mixed,’ occur by the natural conflation of elements, not by the influences from above

⁴⁰⁵ Grégoire, *De republica*, XXI.9.18, p. 795b: Si naturali illa influentia fierent & solverentur principatus & respublicae, certis mediis fierent omnes huiusmodi & eodem modo: at illae variis modis & fiunt & dissolvuntur.

⁴⁰⁶ Grégoire, *De republica*, XXI.9.19, p. 795b-6a.

which are the cause of no imperfection. And otherwise the demons who by the permission of God exercise power in these corruptible things,” would have power over the incorruptible things, namely, the stars, which is impossible.⁴⁰⁷

Though the stars do not have a direct and necessary effect on the will, according to Grégoire, they can have an indirect effect by setting the conditions to which it has to respond. So, for instance, by the impression of the stars on our bodies we are given different temperaments which make one apt to certain behavior, such as choleric to anger. Here Grégoire spoke of the stars making the *occasio* for the choice of the free will, a term which we found in Machiavelli. These occasions do not necessitate specific responses since we are free to resist or disobey.⁴⁰⁸

Grégoire was concerned to prove that the observed effects of comets and eclipses could be explained naturally. Humans are not affected by the individual comets themselves but by the consequences of the comets. The comets work by natural means. “Wars furthermore are signaled by those comets because when the spirit does not ...but the body is then disordered in temperature, it is burning, it is mixed with humors, and easily burnable bile burns by that constitution of the air and not only in the year in which [the comets] are seen but also in the next. From which bile anger, sedition, discord, and finally fighting [arises] if these passions are not tempered by the mind and reason. Indeed anger is a short-lived madness, unless it is checked by the command of the mind. Just as in summer men are prone to lust, some when they are stimulated by the heat, others by

⁴⁰⁷ Grégoire, *De republica*, XXI.9.19, p. 796a.

⁴⁰⁸ Grégoire, *De republica*, XXI.9.23, p. 797a-b.

aromas, and others when they consume things which promote the seed [i.e. semen].”⁴⁰⁹

Likewise, eclipses of the sun and the moon are natural events which have natural effects.

Natural philosophers, farmers, and other writers about rural matters can predict the seasons and the weather because of natural causes.⁴¹⁰

Grégoire noted that it was possible to respond to signs of future events just as physicians can respond to symptoms of future sickness and sailors to impending weather. The reason for this is that heavens affect human actions through natural causes as he has already explained. “Finally the black and yellow bile are moved and men incited to anger and madness by the power of the strength of the heavens and comets, whence war. Cannot individuals who know they are prone to anger take precaution against this using reason and composing the passions of the mind? Cannot magistrates and princes who have military power arrange through their diligence that anyone who attempts strife or faction in vain is stopped immediately before the plot of anger or the society of wickedness spreads to many? Certainly nothing will be easier if the princes are intent on their office.”⁴¹¹

⁴⁰⁹ Grégoire, *De republica*, XXI.9.23, p. 798a: corpus autem tunc in temperatura confunditur, uritur, miscetur, cum humoribus, & bilis facile incensibilis, incandescit per eam aeris constitutionem idque non solum per annum quo videntur, sed etiam per sequentem. Unde ex illa bili, ira, seditio[,] discordia, pugnae tandem dum passiones illae ab anim & ratione non temperantur. Ira enim brevis furor est, nisi animi imperio compescatur. Sicuti aestate ad Venerem quidem proni sunt, dum caloribus stimulantur, alii dum aromatibus & moventibus semen pascuntur, & sic de similibus.

⁴¹⁰ Grégoire, *De republica*, XXI.9.28, p. 801a-b.

⁴¹¹ Grégoire, *De republica*, XXI.10.7, p. 807b: Demus vi ardoris coeli & cometarum moveri atram vel flavam bilem & concitari homines ad iram & furorem, unde bella. Nonne singuli qui se pronos ad iram norunt, utendo ratione & compescendo animi passiones poterunt ab his praecavere? Nonne Magistratus & principes, qui gladii potestatem habent, diligentia sua poterunt efficere ut statim atque quis temere ad rixas vel factiones pervenerit, opprimatur, antequam in plures coniuratio, vel irae, aut maleficii societas repat? Certe nihil erit facilius si suo officio intenti sint principes.

The last figure to be discussed in this chapter will be the professor of medicine at the Protestant university of Helmstedt, Henning Arnisaeus (1575-1636). Arnisaeus shows that by the early seventeenth century, criticism of astrology had become both more thoroughgoing and less concerned with confessional polemics. The latter is evident in the borrowings of Arnisaeus and other Protestants, such as Christoph Besold, from Grégoire and other Catholic writers. Arnisaeus in a sense is the end of the reaction to the identification of political science with natural philosophy but he absorbed the language of cause and effect from the debate over astrology and so did not restore political science to the language of prudence and final causes.

Arnisaeus expressly treated astrology in the context of the causes of political change. Arnisaeus, like Bodin and Grégoire before him, wished to distinguish between those causes which were proper to politics and those which were natural causes. Bodin and Grégoire distinguished between these two types of causes from the point of view of the causes themselves. Thus, for them, natural causes were those causes which were initiated by nature herself, while civil causes were those which were enacted by political actors. Arnisaeus distinguished between causes from the perspective of the analyst or scientist. This was in keeping with Aristotle's definition of sciences as autonomous disciplines with their own principles and set limits. "For the political man cannot assign causes except according to his art, lest he leaps and wishes to exceed his limits."⁴¹² As a result of this view, or perhaps consistent with this view, Arnisaeus was more

⁴¹² Henning Arnisaeus, *Doctrina politica* (Amsterdam, 1651), p. 457 : Politicus enim non potest, nisi ex sua arte causas assignare, nisi saltum facere, et terminos suos transgredi velit.

thoroughgoing than his predecessors in his rejection of the influence of the stars and numerology on political change.

Arnisaeus's criticism of numerology offers a partial explanation of why a mathematical political science was not developed in the first half of the seventeenth century. One might have thought that Bodin's reflections on the intimate ties between numbers and political change would have led to the development of such a mathematical science. However, from the vantage point of the early seventeenth century, the assignation of number to political and social phenomena was associated with excess and obscurity rather than with precision. Moreover, there was a debate at the time over whether numbers contained any explanatory power.

Arnisaeus wrote that he was less concerned about numerology than astrology as a matter of controversy, and particularly Platonic numerology, since it was such an obscure matter that people spoke proverbially of obscure things as Platonic numbers. Furthermore, he noted that none of the allegorical interpreters of Plato such as Macrobius and Ficino attributed any causal power to Platonic numerology. Arnisaeus is of the school that thought that mathematical objects, such as number, could not be causes. This was the position of Alessandro Piccolomini (1508-1578), who denied that there could be demonstration in mathematics. Arnisaeus argued that mathematical objects are neither causes in their own science of mathematics, nor in political science.⁴¹³

The nature of number seems like an arcane matter which should be reserved for the philosophy of mathematics to us, but it was clearly of much greater social importance in an age where numerology was a popular practice. Denying number causal status meant

⁴¹³ Arnisaeus, *Doctrina politica*, p. 454. Aristot. 13. et 14. Metaph. et 5. polit. pag. 493

that numerology was not properly explanatory, that it could not explain changes in political affairs. In essence what the critics of number as cause were saying is that number is not the kind of thing that can explain political change. While this seems obvious to us, we must try and imagine that there was a need to spell out to believers why exactly number could not be a cause.

The style and substance of Arnisaeus's rejection of astrology very much resembles that of the earlier authors, and his arguments were mostly borrowed from them. So, he agreed that, following Aquinas and Scotus, the heavens only affect natural bodies and not the human will, except in so far as it is conditioned by the temperament of the body.⁴¹⁴ Like Bodin and Grégoire before him, he criticized Copernicus's theory of the influence of the revolution of the Earth on the rise and fall of regimes, adding to their accounts the spectacular rise and fall of the government of the Anabaptists in Münster in one day.⁴¹⁵ Like Bodin, he also criticized Cardano for attributing the rise of great empires to the vertical position of the last star in the tail of the Ursa Major⁴¹⁶ at noon, even though this star was in the same position over many other countries which had not risen to prominence.⁴¹⁷

⁴¹⁴ Arnisaeus, *Doctrina politica*, p. 458.

⁴¹⁵ Arnisaeus, *Doctrina politica*, p. 459: Copernicus ad Revolutionem Eccentrici terrae, ortus et interitus Rerum publicarum revocat. Sed praeterquam, quod triplex ille motus terrae, falso et contra principia a Copernico affingitur, sicut in *Physicis* cap. de caelo monstravimus, constat ex hypothesi Copernici motum illum regularem esse et certum: Sed Rerum publicarum conversiones adeo incertae sunt, ut multas, priusquam fere caput extulerint, ad principia redire videamus, sicut Anabaptistarum nova in VVestphalia, si id nominis meretur, Res publica eo fere cecidit die, quo emerserat, Munst. 3. Geogr.

⁴¹⁶ Alkaid, Eta Ursae Majoris, HR 5191, HD 120315.

⁴¹⁷ Arnisaeus, *Doctrina politica*, p. 459: Cardanus adhuc aliam causam ortus magnorum imperiorum ex astris affert, videlicet, quibus extrema stella in cauda Helices, Sole meridianum tenente, verticalis fuerit, iis magnum imperium portendi, qualiter dispositam hanc stellam fuisse putat, erga prima initia romae. Refutat exemplum hoc satis recte Bodinus, nobis vero sufficit, hîc a Cardano quaerere, si stella sic posita imperium

Arnisaeus's criticism of the use of comets as explanatory causes of political change, while familiar, made the distinction between what we would call "correlation" and causation more prominent. Antoine Mizauld (1510?-1578) in the second book of his work on comets championed Ptolmey's hundredth aphorism which stated that the appearance of comets over a kingdom during the solstice⁴¹⁸ means that a king or some great personage will die there. Arnisaeus also reported the view that comets are the cause of war. Arnisaeus demurred, arguing that while comets may cause sterility, good weather, and the plague, they do not cause war and the destruction of regimes.⁴¹⁹ His general reason for rejecting the power of comets is that they are not causes of the phenomena that they coincide with, their appearance at that time being simply coincidental. This is attested to, Arnisaeus maintained, by the fact that there are many records of comets without any corresponding political change or disaster. It is simply coincidence. "If you were walking and lightning struck, says Aristotle in the *Posterior Analytics*, it is not because you walked that lightning struck, nor, is it the case that because lightning struck, you walked, rather the two coincided by accident."⁴²⁰ The independence of political change from comets is evident in the fact that very few years pass without a comet, and yet there is not always political change. Once again it is clear that Arnisaeus wished to divorce political change from natural causes.

promittit, quare multis aliis populis, quibus ab eo non tantum verticalis, sed et perpendicularis exstitit, imprimis septentrionalibus, tantum imperium nondum dederint?

⁴¹⁸ The word can also mean a "moment of crisis" or a "pole."

⁴¹⁹ Arnisaeus, *Doctrina politica*, p. 459.

⁴²⁰ Arnisaeus, *Doctrina politica*, p. 460: Si te ambulante fulguraverit, ait Arist. 1. post. t. 34. non quia tu ambulasti, fulguravit, nec, quia fulguravit, tu ambulasti, sed hoc cum illo per accidens coincidit

Arnisaeus, then, while relying quite heavily on his predecessors, ultimately took a far stronger line on the independence of political change from natural causes. The other authors all admit far more influence, including Grégoire. Arnisaeus did not deny that the stars had some power, only that the power was limited to natural bodies and so played no role in politics. Thus he argued that it is not fitting to purge astrology completely from the state as Tacitus recorded the numerologists and magi were purged from Italy by a decree of the Senate. Arnisaeus even thought that Pico went too far in condemning astrology and arguing that the heavens did no more than move and shed light. Rather Arnisaeus agreed with Averroes and others that the stars have a hidden effect in medical matters. In other words, Arnisaeus opposed the influence of the heavens on political change not out of some “enlightenment” drive at disenchantment, but because he wished to distinguish natural philosophy from political science and natural processes from human ones. This was actually an older scholastic view as we have seen in chapter one. Yet, as stated in the introduction to this chapter, Arnisaeus does not represent a full return to Albert style of political science because he had learned from these authors to conceive of political science as a science of cause and effect rather than an explanatory science of principles and values. This is evident from the section of his work on the causes of political change, which follows his criticism of astrology and numerology as possible causes of such change.

Arnisaeus’s political science tried to enumerate the causes of political change in greater depth and with more examples than previously accomplished. The science was still meant to be practical in that after identifying the causes of political change it listed remedies which could be used to combat the causes of corruption. In aiming at stability

and diagnosing political change as corruption, Arnisaeus's work was continuous with the project of the reason of state literature. It is thus no surprise that Arnisaeus cited the famed exponent of reason of state, Scipione Ammirato when he wished to explain that one must first diagnose the sickness of a regime and then provide its remedy.⁴²¹

In Arnisaeus's discussion of cause, the relationship between the cause and effect are well known. In his consideration of the various causes of political unrest, Arnisaeus was not concerned to discover the causes of some unexplained phenomena. There is essentially only one phenomenon in question, factional strife, and its appearance is in some sense overdetermined. What is of concern to Arnisaeus is whether the causes mentioned are in fact generally speaking causes of political unrest or not. So, for example, he, along with many others, disagreed with Machiavelli that fear is generally speaking a cause of stability. Machiavelli had infamously maintained in the *Prince* that it was better for the prince to be feared than loved because the love of one's subjects was wavering and fickle while fear was more easily controlled by the prince himself. Arnisaeus, to the contrary, thought that fear contributed to unrest by making men desperate for change and hopeless of relief from their situation by ordinary means. Arnisaeus's method of evaluating such claims, like the majority of the anti-Machiavellian tradition which preceded him, was empirical, drawing on historical example to support his viewpoint.

The greatest failure of Arnisaeus's theory was that he did not distinguish between kinds of causes and so does not develop a rich explanation of the sources of unrest. All the causes he discussed were drawn from Aristotle's *Politics* and as such share Aristotle's

⁴²¹ Arnisaeus, *Doctrina politica*, pp. 448-9.

central concern with faction, but Arnisaeus made no attempt to distinguish psychological causes from demographic or economic causes. One might object that these categories are anachronistic, yet as will become clear in the discussion of Conring, such categories, if not precisely these, were available at the time, or soon would be. Without such categories it is hard to say that Arnisaeus offered an explanation of political unrest at all. One cannot say whether political unrest is predominantly caused for psychological reasons, for demographic reasons, or other kinds of reasons, and so one cannot say what it means for political unrest to be caused at all. There are a hodgepodge of reasons and an undifferentiated effect. All this was in fact far more clearly set out in Melanchthon's brief discussion of causality in the *Initia physicae*, despite the fact that he still subscribed to astrological and magical explanations.

Arnisaeus did think that there were explanations for other features of political life, such as the variation in institutions, but he treated these in a legalistic framework, making them out to be aspects of legal tradition, rather than products of the same sort of causes (psychological, demographic, economic) that Aristotle used to explain political change.

The importance of Arnisaeus is that he discussed these causes and their remedies so clearly in the terms of cause and remedy. Though it seems impossible that Machiavelli and the reason of state literature would not have thought of these as causes, a reading of that literature does not show such scientific consciousness. Several examples of how Arnisaeus used this literature in his discussion of the causes of political change show that there was a subtle shift to a more scientific way of thinking.

For Arnisaeus, political change is defined by the Aristotelian regime types. It is possible for a regime to disappear completely, as when the great part of the populace is

killed or enslaved, but this is rare. The most usual kind of political change is when one of the four types of political regime, namely, monarchy, aristocracy, democracy, and the mixed regime, are transformed into one of the other forms of regime. Thus, there are twelve usual kinds of political change.

Arnisaeus marks an interesting point of transition between the reason of state literature and the new political science. He still felt it necessary to justify his inquiry into the causes of political change on practical grounds. The reason for this inquiry, he wrote, is because it is necessary to know the disease before choosing remedy, and the passions before introducing a particular law.⁴²²

One of the principal explanatory causes of political change, as we have seen with respect to Albert the Great, was sedition or political unrest. But thanks to Machiavelli, it's status as a cause of political change was now debatable. Machiavelli had argued famously, in the face of tradition, and common sense, that political unrest was actually good for the regime by "venting humors."⁴²³ Arnisaeus was concerned here with causes internal to the state, but it is interesting that the main cause of political change in this section, and it is this section that is most seriously concerned with accounting for political change, is faction. Thus Arnisaeus noted that Aristotle thought that a popular regime was more stable than an aristocratic regime, because a popular regime had only one possible conflict, that between the mass and elite, while an aristocracy could have conflicts within the elite besides between the mass and elite.⁴²⁴ This focus on partiality or faction as the

⁴²² Arnisaeus, *Doctrina politica*, p. 469.

⁴²³ Machiavelli, *Discourses*, III.27.

⁴²⁴ Arnisaeus, *Doctrina politica*, p. 470.

main source of political unrest and thus change is a constant factor in the Aristotelian literature, the literature of Florence, and the reason of state literature, but in the political science after Arnisaeus, other causes, such as the physical nature of the people, the land, that is, what we would call exogenous variables, become far more important.

Arnisaeus rehearsed the eleven Aristotelian causes of discord from book five of the *Politics*. The first cause of sedition is giving too much honor to an individual or a group but denying honor to others, which causes envy and eventually sedition.⁴²⁵ The second cause of sedition is envy of the wealth of others.⁴²⁶ The third is the excessive predominance of a person in a regime, leading to their accession to leadership, such as the Medici in Florence or the Sforza in Milan.⁴²⁷ The fourth is disproportionate growth, by which a part of the regime grew or diminished disproportionately, as when a great part of the nobility are killed in battle transforming the state into a democracy or the rich become more numerous through an economic boom.⁴²⁸ We might classify this cause as demographic, and distinguish it from the several of the causes above which are moral. The fifth cause of faction is fear of being punished or suffering a wrong at the hands of some other party.⁴²⁹ Here, Arnisaeus considered the case that we have seen Melanchthon discuss of the Ottoman Selim I deposing his father Beyazid II and killing his brothers. Melanchthon had claimed that this was an example of Diabolical influence, since it required overcoming the natural affection for one's relatives. Arnisaeus argued instead

⁴²⁵ Arnisaeus, *Doctrina politica*, p. 473.

⁴²⁶ Arnisaeus, *Doctrina politica*, p. 475.

⁴²⁷ Arnisaeus, *Doctrina politica*, p. 476. Aristotle, *Politics*, 1302b15, ὑπεροχῆ.

⁴²⁸ Arnisaeus, *Doctrina politica*, p. 477-8. Aristotle, *Politics*, 1302b40, αὐξάνω.

⁴²⁹ Arnisaeus, *Doctrina politica*, pp. 478-82. Aristotle, *Politics*, 1302b40, φόβος.

that this was a case of desperation. Selim knew that it was a practice among his people for the emperor to kill all his sons except for the first born, and he was the second born, after his brother Ahmed.⁴³⁰ Compared to Melanchthon's discussion, Arnisaeus's treatment of Selim's behavior is not only amoral but more political, understood within the institutions and practices of the Turkish regimes. Selim's response was understandable to the kinds of politics practiced in the Ottoman empire. Arnisaeus disapproved of such a practice because it led to instability rather than the stability it intended but Selim himself is not to blame. The treatment is obviously more rational in that it explains to the reader the behavior of Selim based on the reasonable attitude he must have adopted given his desperate situation. Melanchthon did not attempt such an explanation because for him rationality is defined by the natural affections not by the situation.

The transition from the practical political reasoning of Machiavelli to a more scientific discussion of causes can be glimpsed in Arnisaeus's discussion of the sixth Aristotelian cause of regime change, namely, contempt.⁴³¹ Arnisaeus probed further into the causal structure of contempt. Contempt was caused by neglect of public affairs and bad administration. Contempt is also caused by bad mores, such as drunkenness or luxurious living, or by minor issues such as one's looks or stature. Contempt is also caused by insulting or harsh words.⁴³² Machiavelli wrote about the use of insulting words not in the language of causes but of virtue and prudence. "I believe that it is one of the great signs of prudence which men exhibit in abstaining from threatening and injuring

⁴³⁰ Arnisaeus, *Doctrina politica*, p. 481.

⁴³¹ Arnisaeus, *Doctrina politica*, pp. 478-82. Aristotle, *Politics*, 1302b40, *καταφρόνησις*.

⁴³² Arnisaeus, *Doctrina politica*, p. 488.

anyone with words, for neither the one and the other takes away strength from the enemy; but the one makes him more cautious, and the other causes him to have greater hatred against you, and with more industry to think of injuring you.”⁴³³

Arnisaeus’s method here was very close to that of Aristotle’s in the *Politics*. He added modern examples but otherwise the presentation of the causes was very much the same. The apposition of these causes to the astrological causes does suggest that Arnisaeus thought of both of these as causes of the same type. His treatment was different than that of Albert the Great on the same material. Albert constantly referred the causes of faction and thus political unrest back to the principle of distributive justice. It is the views of the actors about distributive justice that leads to unrest according to Albert. As we have seen, he believed his explanatory science to be properly explanatory because it referred back to this basic principle and point of disagreement. Arnisaeus treated these causes more individually.

In summary, then, Arnisaeus took care to distance political science from natural philosophy while still adopting the language of cause and effect. His presentation of the causes of political change was remarkably continuous with the reason of state literature. Nevertheless it was presented quite differently, as a list of causes of political change. This was indubitably due to this engagement with the discussion of the “natural” causes of political change in the discussion over the influence of astrology on politics. The result then of this debate over the sixteenth century was a shift in the language of political

⁴³³ Machiavelli, *Discourses*, II.26: Io credo che sia una delle grandi prudenze che usono gli uomini, astenersi o dal minacciare o dallo ingiuriare alcuno con le parole: perché l'una cosa e l'altra non tolgono forze al nimico; ma l'una lo fa più cauto, l'altra gli fa avere maggiore odio contro di te, e pensare con maggiore industria di offenderti.

science from one of prudence and principles to one of cause and effect.

Chapter 5. The political science of Hermann Conring

In this chapter, I will consider the work of the German professor of medicine and politics, Hermann Conring, who revisited the question of how there could be a theoretical science of politics in great detail in his *De Civili Prudentia*. Conring (1606-1681) was the professor of natural philosophy (1632-1637), medicine (1637), and politics (1650) at the protestant university of Helmstedt in Germany. Conring had become deeply interested in politics in the 1630s after meeting the professor of public law at Helmstedt, Jacob Lampadius. From then on, Conring taught and published on both medicine and politics for the next twenty years. He taught the subject privately until 1650 when he officially became a professor of politics, after which he began to lecture regularly on Aristotle's *Politics* and the political system of the Holy Roman Empire. Once he had become a professor of politics, his interests became increasingly political and he rarely published on medicine.⁴³⁴

The planning and writing of the *De Civili Prudentia* spanned the entire period of Conring's interest in politics. He began to plan the work in the 1630s, supervised a set of dissertations on the topic in 1650-1651, just after becoming the professor of politics, and finally finished it in 1662. Though in this later period he rarely published on medicine, he did not forget his medical learning in his writing on politics. It is his detailed knowledge of the medical literature that enabled him to write on political methodology in such detail.

In a sense, in turning to Conring we have come full circle. Conring returned to many of the questions that animated Albert, who, in the first chapter, we have seen was concerned to prove that there could be a theoretical science of politics which was

⁴³⁴ For Conring's biography, see Constantin Fasolt, *The limits of history*.

consistent with free choice but was explanatory at the same time. Conring's central concern in the *De Civili Prudentia* was also to prove that there could be a theoretical science of politics. Though he entitled the work *On civil prudence*, Conring was not concerned with the definition and means of acquiring practical political knowledge, as the word "prudence" might suggest, but rather with establishing the possibility of a theoretical political science. Conring shared Albert's basic Aristotelian conception of science from the *Posterior Analytics* as the certain knowledge of universals which is produced by means of the demonstrative syllogism. Conring also distinguished between theory and practice in the same manner as Albert and Aquinas, likewise identifying science with the theoretical, *docens*, aspect of a discipline. Furthermore, Conring shared some of Albert's aims for science. He too thought that science should provide certain knowledge—this was after all the definition of science—and that it should offer explanations of phenomena, or as both authors would have put it, "knowledge of the reason why" or "on account of what" (to dihoti, *propter quod, quare*). All of these similarities in their views of science generally were part of their common Aristotelian heritage, which would have been commonplace among university teachers during our entire period. It may be that Conring was motivated by some of the same intramural concerns as Albert, for politics had not yet become an established university subject independent of law and theology and political knowledge continued to be defined by most theorists in terms of practical political knowledge, that is, as prudence.⁴³⁵

Conring's work, however, was by no means simply an echo of Albert's. In the broader context of proving that there could be a theoretical science of politics, Albert was

⁴³⁵ For more on these themes, see Scattola, *Dalla virtù*.

centrally concerned with reconciling such a task with free choice. His solution was to develop a science which explained political phenomena in light of the conscious ideals and values of men. In the intervening years the popularity of such a project had waned. Fate and celestial influence became important factors in explaining political change and consequently the importance of a science where which explained phenomena in terms of the goals of political actors waned. Even the critics of astrology, who were concerned to secure free choice, were by and large committed to naturalistic explanations of political change. By the time that Conring revisited the question of the possibility of a theoretical science of politics, free choice was no longer the main concern.

Conring was mainly concerned in the *De Civili Prudentia* with proving that there could be a theoretical science of politics which took account of generalized empirical principles. He wished to prove that there could be an *empirical* science of politics. Albert had established that there could be a science of politics when such a science was considered an ethical science and the principles of the science were ethical principles. Conring wished to prove that there could be a science of universals which were based on empirically observed phenomena not only abstract reasoning. Additionally, in his empirical studies of particular regimes, as well as to a lesser extent in the *De Civili Prudentia*, he was concerned to introduce all four Aristotelian causes into political science. This was in part a consequence of the discussion of celestial influence on political change, which highlighted the role of efficient and material causes in politics.

Conring's motivations for introducing a political science based on general empirical principles is a matter of controversy. Horst Dreitzel has argued that Conring was concerned to oppose the skeptical *lebensphilosophie* of the humanists. His

interpretation of Conring thus emphasized the importance of certainty in the conception of science which Conring wished to apply to politics. There is good evidence for this interpretation in Conring's criticism of humanist political thought, but I think that his emphasis is as much on including experience within the framework of science as with making experience scientific. In other words, Conring was more concerned with adapting science to include empirical observation as with insisting on certainty. This is partly borne out by the fact that he relaxed the standards of certainty to include "for the most part" knowledge and that Conring made no reference to solving problems of political dissent or lack of consensus through his political science. This suggests that he was not only concerned with the effects of a skeptical *lebensphilosophie*. Moreover, in his political studies of particular regimes—admittedly a different kind of endeavor than the general political science of the *De Civili Prudentia*—he showed no real interest in the question of certainty. Conring aimed at establishing that there could be a science of empirical generalizations about politics in order to prove that there could be a new science of politics which was consistent with empirical observation. Thus Conring's political science was developed for genuinely scientific reasons rather than for ideological or cultural reasons.

Conring's work is of interest both as a transitional work in the development of modern empirical science as well as for the transformation in the view of human nature required by his methodological commitments. Conring was clearly aware that he was in the midst of a methodological revolution centered on the meaning of experience and empirical observation. Yet he was naturally unaware of the shape that empirical science would take over the next centuries. Thus there are many features of Conring's work

which appear strange to us today. Though Conring was centrally concerned with integrating empiricism into political science, he did not emphasize the discovery of new facts in either his *De Civili Prudentia* or his studies of particular regimes. There are hints at the notion of discovery, but his science was generally concerned with the integration of empirical evidence into a broader explanatory framework. The purpose of generalization was not so much the discovery of unknown truths about politics, but showing that they are in fact general and that they can be related to other general statements and particular cases in politics. He is thus, from the point of view of modern empirical science, a transitional figure between science as an orderly axiomatic system of principles and a logic of discovery. In so far as the scientific revolution is understood as progress towards a logic of discovery, Conring's work shows that political science played a role in this more general movement by adopting the definition of science to include empirical generalizations.

For the development of political science and the social sciences more specifically, Conring's work is an important step towards the development of a probabilistic methodology. While in the natural sciences, discovery of new facts may be the most important function of science, the specification of the degree of generality of a behavior or phenomena is still of great importance in the social sciences. In adapting empiricism to the Aristotelian framework of science, Conring paid close attention to issues of quantification, which preceded the introduction of mathematical probability. The application of probability to the social sciences is well-recognized as one of the most, if not the most, important factors for the rise of the social sciences. Conring's work was an important precursor to this work.

Conring's work is also of interest for the transformation his methodological principles entail in human nature. Edwin Burt and others have argued that change in scientific views is accompanied by a corresponding change in views about metaphysics and ontology.⁴³⁶ So, for example, Newton's advances in physics can be understood to be accompanied by changes in the understanding of the meaning of cause and effect. The same can be said of Conring. His methodological commitments to the possibility of generalization of human behavior and to the use of the material cause in explanations required a corresponding change in his understanding of human nature. He began to think of human behavior—including political behavior—as conditioned by the natural temperaments of the agents. This transformation, as we have seen, was prefigured by the proponents of astrology and their critics. There are hints that Conring was aware of this change in the view of human nature when he, just like the proponents of astrological influence, protested that he is preserving free will.

The point should not be over exaggerated or caricatured. Conring was not the apostle of the “standardized subject” or some such figure from the later history of the social sciences.⁴³⁷ Conring was sure to reserve room for free will and was careful to write that generalization was only sometimes possible and then only possible for the most part. Throughout his works, his conclusions, with the exception of his taste for physiognomy, are sensibly circumspect. He only wished to indicate that human behavior was often generalizable due to natural temperament or habit.

⁴³⁶ Edwin Arthur Burt, *The metaphysical foundations of modern physical science: a historical and critical essay* (New York, 1925).

⁴³⁷ Michel Foucault.

The purpose and audience of Conring's political science

In the first decades of the seventeenth century a so-called propaedeutic genre on the nature and status of politics emerged in Germany. This literature tried to identify which of the five mental states named in book vi best defined political knowledge. Conring's *De Civili Prudentia* can plausibly be seen as a contribution to this literature and it explicitly engaged with political knowledge in the context of book vi.⁴³⁸ Yet unlike this literature it moved beyond this framework of mental states to discuss the requirements of science in detail.

Conring wished to refute the claim that the two mental states of art and prudence are only concerned with singulars.⁴³⁹ While he thought that there is certain knowledge of particular political situations based on sense and experience (*ἐμπειρία*), he now wished to investigate the possibility of a knowledge of universals in politics.⁴⁴⁰ Conring, following Aristotle, believed scientific knowledge to be a matter of universals. Aristotle had claimed that it is not science to know how to cure Callias, but how to cure men in general. Thus Conring hoped to prove—in arguing that there can be universal principles of art and prudence—that there can be scientific knowledge of prudence or politics. Thus he argued that universal precepts can be demonstrated for matters of prudence and art as

⁴³⁸ This literature is described and discussed by Scattola, *Dalla virtù. Conring, De civili prudentia*, in *Opera*, ed. Johann Wilhelm Göbel (7 vols., Braunschweig, 1730; Aalen, 1970-1973), III, 9.2.

⁴³⁹ Conring, *De civili prudentia*, 9.3.

⁴⁴⁰ Conring, *De civili prudentia*, 8.3, p. 319: In quaestionem igitur nunc venit, non utrum detur certa aliqua notitia rerum civilium singularium: nam haberi illam posse sensu & experientia, iam est constitutum. Id controvertitur iam, utrum possit rerum civilium universalium haberi aliqua *certa cognitio*, an mera tantum opinio: potissimum vero, an certa possit scientia eorum comparari per demonstrationem; & si potest, an haberi possit illa omni ex parte certissima scientia ac τὸν διοτι, nec ne. Denique & illud expendedum venit, si possit illa accuratissima scientiae ratio haberi, num ad res gerendas illa utilis sit vel necessaria.

well as of wisdom (*sapientia*).⁴⁴¹ It should be noted that while Conring was concerned chiefly with proving that a demonstrative science of politics is possible as a philosophical matter, he also hoped to prove textually that this was the view of Aristotle and so he quoted a host of passages to this effect.⁴⁴²

In arguing that there can be a theoretical science of politics, Conring referred to the old distinction between *docens* and *utens*, between a subject as taught, and as used in action. As traditional, he identified *docens* with universals, *utens* with particulars.⁴⁴³ The reason for this is that traditionally universal propositions were not thought to be amenable to immediate action. So the conclusion, “magistrates should be elected,” to take an example of universal prudence raised by the Florentine commentator Donato Acciaiuoli and cited by Conring, is not truly practical. It is hard to know as an individual what to do when faced with a universal conclusion; this is not practical knowledge. Truly practical knowledge would be a skill of electing magistrates, or the knowledge of how to do so, or the knowledge of what to do in a particular situation.

Conring recalled the traditional arguments for the *utens-docens* distinction. There are several ways of looking at the same subject matter, as the scholastics wrote. Something can be materially the same, but formally different. So, the human body can be considered by a natural philosopher (*physicus*), a doctor (*medicus*), and an executioner

⁴⁴¹ Conring, *De civili prudentia*, 9.4, 3:328. Possunt vero & artium & prudentiae praecepta universalia demonstratione cognosci.

⁴⁴² Conring, *De civili prudentia*, 9.4

⁴⁴³ Conring, *De civili prudentia*, 9.17: Alia scilicet ratio est Artis, quatenus illa docetur & discitur; alia quatenus opus suum exercet. Velut scholarum vocabula adhibeamus: Alia est ratio Artis docentis, alia utentis. Prior in solis universalibus: Posterior sine singularium notitia omnino esse nequit. Arnisaeus continued the tradition of connecting the distinction between *utens* and *docens* to politics. He cited the same distinction between an abstract and applied logic of Avicenna’s that was cited by Albert the Great as we have seen above.

(*carnifex*). The natural philosopher considers the human body in so far as it is a body liable to change, the doctor in so far as it is liable to sickness and health, the executioner in so far as it can be punished. The difference between *docens* and *utens* had often been applied to medicine as well, and Conring cited Avicenna, one of the oldest commentators on Galen, who argued that medicine is practical in the sense that it aims at the health of some patient, but theoretical in the sense of being a body of doctrine known by a doctor.⁴⁴⁴ Conring rehearsed these arguments for an *ethica docens* to emphasize that he is not concerned with an *utens* kind of knowledge in the *De Civili Prudentia*.

Yet Conring thought that there was a real continuity between practical and theoretical knowledge. He thought that even general theoretical reflection on practical matters entailed a desire to see the positive theoretical conclusions implemented and the negative ones avoided. He thought that such theoretical reasoning required the “assent” of the will.

Therefore the full and complete universal knowledge of actions puts in its pocket, so to speak, the capacity of transferring these universal propositions into action; so the knowledge drags the assent of the will with it at the same time in a manner of speaking. Indeed he who seriously proves what is to be done and what is not to be done should at the same time want to do it, if he can; if he does not want to do it, then his intellect does not fully assent to it, as Aristotle formerly taught excellently in *Nicomachean Ethics* books 6 and 7.⁴⁴⁵

This may have been a controversial argument, since the knowledge of universals was not held to be practicable knowledge as just mentioned. The difference between theoretical knowledge and practical knowledge was thought to lie exactly in the specification of “what is to be done” on a particular level. Even if the recognition of the universal

⁴⁴⁴ Conring, *De civili prudentia*, 9.11.

⁴⁴⁵ Conring, *De civili prudentia*, 9.26: Is enim, qui serio probat quae agenda sunt omittendaque, is simul eadem vult agere, si possit. Si nolit, non plene quoque illa intellectus assensu comprehendit.

conclusion gave rise to a desire to act on it, it would not be clear what it would be a desire to do in a particular set of circumstances. Conring claimed that the capacity of specification is “in the pocket” of a universal knowledge of actions, implying that the process of descending from universal conclusion to particular action was an effortless process of rule-case reasoning.⁴⁴⁶

Conring was aware of the difficulty of such a claim, and his real concern was with a *politica docens*. He wished however to demonstrate continuity with the Aristotelian tradition in which prudence meant not only knowing what was to be done, but having the correct desire as well. This is an important component of what makes practical knowledge practical, but Conring was more interested in *politica docens*. After paying lip service to the tradition, he remarked that a correct will is necessary for prudence only if one is speaking precisely: “Furthermore, I have said that it has to be this way, if we wish to speak exactly. We confess that if we do not observe that strict way of speaking, then the name of prudence can remain even where there is not that correctness of will.”⁴⁴⁷

There are some indications that the purpose of the political science was to teach administrators. For Conring, the empirical study of particular regimes was a separate discipline from the *civilis prudentia* or *politica* and he called the new discipline—often called *Staatenkunde* or *Statistik* in German—*Notitia reipublicae singularis*.⁴⁴⁸ Conring

⁴⁴⁶ For background on practical reasoning, see the relevant articles in *Essays on Aristotle's ethics*, ed. Amélie Oksenberg Rorty (Berkeley, 1980).

⁴⁴⁷ Conring, *De civili prudentia*, 9.27: Dixi porro, rem ita sese habere, si exacte velimus loqui. Fatemur quippe, illam exactam loquendi rationem si non observemus, aliquatenus tamen etiam sine illa voluntatis probitate Prudentiae nomen posse superesse. Also, see the title of chapter 8: *Civilium rerum certam atque ἀποδεικτικὴν scientiam haberi*.

⁴⁴⁸ Arno Seifert, “Staatenkunde,” in *Beiträge*, ed. Stolleis, p. 203, who notes that other early forays into this discipline were made by Bartholomew Keckermann in Danzig and Johann Bose in Jena.

noted in the introduction to his collection of studies of particular regimes that both disciplines were necessary for the administrator or counselor. One who wishes to practice politics, he wrote, first has to study general political science and then the states that one is active in and which have relations to those states.⁴⁴⁹ Conring equated political practice with giving advice (*consilarii munere*), highlighting the consultative role that he was thinking of for his students.

Conring explained the reasons for studying political science to students who would not be becoming professional administrators in a manner which is remarkably similar to the pitch given to university students today to convince them to study political science.

There is therefore more pleasure from recent history than from older history, since recent things appear more believable and we have more of an appetite for them than those things which are dead and outdated. Hence it is that many who have not thought of serving the state are nevertheless entranced by this pleasure. I myself as a young man in Holland heard men who had never given a thought to being in government, nevertheless on account of this pleasure discussing most prudently several different regimes of our time. We are immersed in pleasure when we read the weekly newspapers, and we read with even more pleasure if we are experts in the knowledge of regimes.⁴⁵⁰

Conring's critique of pure empiricism in politics

Conring's positive political science was developed in response to the humanist practice of political theory. The first evidence we have Conring's dissatisfaction with the

⁴⁴⁹ Hermann Conring, *Examen rerumpublicarum potiorum totius orbis*, in *Opera*, IV, pp. 47-516, p. 48: ille, qui rempublicam vult administrare, debet formam & ideam illius comprehendere, hoc vero non sit ex historia universali, sed singulari.

⁴⁵⁰ Conring, *Examen*, p. 49: Ex ercenti itaque historia maior est voluptas, quam ex veteri, cum recentia magis videantur credibilia & magis haec appetamus, quam mortua illa & obsoleta. Hinc fit, ut multi, qui nunquam animum appulerunt ad rempublicam, hac voluptate tamen ducantur. Audivi ego ipse adolescens in Btavia homines, qui nunquam ad res gerendas cogitationes adjecerant, prudentissime tamen de quibuslibet rebuspublicis nostri aevi differentes, & hoc ingenua huius rei voluptas efficit. Perfundimur voluptate, si legerimus novellas istas, quae quibuslibet septimanis ad nos deferantur, & has maiori cum voluptate legemus, si simus periti cognitione rerumpublicarum.

humanist approach to politics is a somewhat superficial attack on the humanist method of choosing maxims from classical authors discussed above. The attack appears among other arguments in a thesis written by Conring in 1629 under the guidance of Franco Burgersdijck, the author of widely used textbooks in logic and moral philosophy.⁴⁵¹ Conring was studying under Burgersdijck and others at Leiden, because his home university of Helmstedt was closed on account of war and plague.⁴⁵²

Conring's attack—though in part *ad hominem*—focused on the important issue of the worth of making excerpts from authors. “Those who obtain moral prudence for themselves by collecting phrases from classical authors,” he wrote, “talk no less idly than the sophists did formerly, thinking that politicians can escape from the heap of laws.” It is the method of the dialectician to use authorities, while it is the method of the philosopher to use argument. But Conring's telling case against the humanist method of making excerpts from authors is that “only one who is already instructed with the habit of prudence already can choose the best from the various sayings; they are his material as it were.”⁴⁵³

⁴⁵¹ On Burgersdijck, see E.P. Bos and H.A. Krop, eds., *Franco Burgersdijck (1590-1635): Neo-Aristotelianism in Leiden* (Amsterdam, 1993).

⁴⁵² See Fasolt for details.

⁴⁵³ Franco Burgersdijck (praeses), *Theses variae De morali prudentia*, resp. Hermann Conring (Leiden, 1629), thesis 5, in Conring, *Opera*, VI, pp. 335-337, p. 336: Qui ut moralem prudentiam sibi comparent, ex classicis scriptoribus sententias colligunt, non minus hallucinatur, quam rhetores olim, arbitantes, ex legum congerie politicos se evadere posse. Sed testimoniis quidem rem agit dialecticus, philosophus autem non nisi rationibus. Porro ex variis dictis optima seligere posse, illius tantum est, qui iam habitu prudentiae est instructus; sunt enim eius quasi materia. The thesis, though completed under Burgersdijck's supervision, did not mean that Conring was committed to his teacher's views in every particular. Burgersdijck showed signs of the influence of the humanists, tying prudence tightly to personal experience. Burgersdijck wrote that the proximate causes of prudence are experience and precepts, but mostly experience, which is why, he noted following Aristotle, young people are not usually able to be prudent. Franco Burgersdijck, *Idea philosophia moralis* (Oxford, 1631; 1st. ed. 1623, 2nd. ed. 1629)10.22, p. 103: Haec causa est cur juvenes fieri nequeant aut difficulter fiant prudentes, *lib. 1 Eth. Cap. 3. & lib. 6. cap. 8*. Burgersdijck also held the Lipsian view that prudence could not be put in terms of general rules (*praecepta*),

It is hard to say for sure that Conring was critical of empiricism at this early date. He may well have been, since as we have seen in the last chapter, there had long been such criticism of a pure reliance on experience, both in medicine and politics, but it may be that he only fully appreciated the force of such arguments when he returned to the University of Helmstedt and began preparing his lectures on medicine. Thus it is difficult to say whether Conring's critique of pure empiricism got its start in politics or medicine. It is clear that he thought it was inappropriate in both disciplines and referred to his medical works in this respect in his political works and to his political works in this connection in his medical works.

Conring treated the role of experience in politics explicitly in a chapter of the *De Civili Prudentia* where he asked, "Whether all civil skill is acquired only by experience or not?"⁴⁵⁴ The key word here is "only." Conring tried to show that experience alone is insufficient, and in some cases, even unnecessary, for civil prudence. It plays some role in acquiring and confirming the tenets of prudence, but it cannot be the sole guide.

It quickly becomes clear that Lipsius was the main target of this chapter, that he was the thinker most readily identifiable with the view that experience alone is sufficient. By experience, Conring meant both personal experience as well as the reading of history. He understood this to be the position of Lipsius and numerous others, and it is this

since human action was concerned with singulars. Franco Burgersdijck, *Idea oeconomicae et politicae doctrinae* (Leiden, 1644), 3.9, pp. 21-22. Cited in H.W. Blom, "Felix qui potuit rerum cognoscere causas: Burgersdijck's moral and political thought," in Bos and Krop, *Burgersdijk*, pp. 119-141, p. 145. Burgersdijck, *Idea philosophia moralis*, 1.21-22, pp. 10-11. As we shall soon see, this was a view that Conring would take seriously as one of the key hurdles to proving the possibility of a science of civil prudence.

⁴⁵⁴ Conring, *De civili prudentia*, 7.2: An omnis peritia civilis sola experientia comparetur nec ne.

position—that personal experience and the reading of history alone are sufficient for civil prudence—that he wished to refute.⁴⁵⁵

Conring argued that reading history was essentially the same as personal experience, since most histories are simply records of sense impressions and as such consulting them is the same as consulting experience. He thought that there had been several exceptions to this rule, and that a few histories actually attempted to draw general conclusions and address the causes of phenomena. These exceptions included Aristotle's *History of Animals*, the history of plants by Theophrastus, and the history of subterranean things by Georgio Agricola.⁴⁵⁶ The mention of natural histories in a discussion of the utility of history for civil science shows how Conring thought of natural and civil philosophy as part of the same methodological program.

It is possible and even important according to Conring to learn from history, since a single individual cannot possibly learn all he needs to know from personal experience.⁴⁵⁷ Conring stressed however that the *conclusions* drawn from history cannot be thought of as purely empirical but involve reasoning or abstraction of some kind. Conring's criticism of Lipsius and the others who thought that civil prudence can be acquired through experience alone is not that they have failed to acquire civil prudence, but that they have failed to understand on what basis they have acquired civil prudence.

⁴⁵⁵ Conring, *De civili prudentia*, 7.2: *Usum enim definiunt notitiam humanarum rerum ex visu vel tractatu: memoriam notitiam similem ex auditu vel lectu vid. Lips. Polit. lib.1 c. 8. Sed & in hanc sententiam concedere omnino debent cuncti illi, qui ad comparandam prudentiam unice commendant praeter usum, historiarum lectionem.*

⁴⁵⁶ *De civili prudentia*, 7.3.

⁴⁵⁷ This view is repeated in the *Examen*, pp. 54-5, where Conring elaborated his method of taking notes on history. He suggested not a commonplace book after the fashion of the humanists, but a scheme of note taking while reading that was not necessarily focused on excerpts or maxims as in the humanists.

To this end, Conring wrote:

The error arose from the fact that all those, who are not lacking in intelligence, are prone to form some general precepts from particular events perceived by experience, which though they are similar, are confusedly reckoned to be identical by many, especially among those who lack the care to attend to the details of the truth. Therefore you will surely find those who do not locate prudence in the knowledge of common civil precepts or who judge that the state can be sustained through empirical maxims alone. As for those men, who are believed to be Empiricists the more prudent they are, the more they abound in political admonitions and maxims of this kind. But since these are often learned not from a teacher but from the experience of things, or if perhaps they have been received from experience elsewhere, they find credibility with many, they are believed to belong to empirical matters, nevertheless since something emerges from a new process of thinking they belong to civil art and science. Certainly Justus Lipsius in his works was most famous for this opinion. Nor do those think otherwise who seek that prudence from history with which which you can even advise your own state. For how can you transfer those things, which for example, profited the Romans, from another time to your own unless by means of some general precept formed from the history of particular affairs? Certainly he who cannot, wastes time reading history in vain.⁴⁵⁸

Conring proved that technically speaking it is impossible to say that any general conclusions can be drawn from experience alone. For this argument, Conring relied on a series of Aristotelian definitions. According to Aristotle, memory is a state (*hexis*), or conservation of the image of a perceived thing,⁴⁵⁹ while experience stems from repeated

⁴⁵⁸ Conring, *De civili prudentia*, 7.9: Errore nato inde, quod omnibus iis, qui ab ingenio non destituuntur, in proclive sit communia quaedam praecepta ex singularibus eventis usu perceptis condere; quae autem vicina sunt a quam multis, praesertim quibus curae non est minutias veri attendere, confusione quadam existimantur eadem. Non temere igitur reperias, qui in communium civilium praeceptorum notitia non collocet prudentiam, aut sine iis posse reipublicam geri per sola proprie dicta experimenta arbitretur. Ipsi illi, Empirici qui creduntur, quo prudentiores sunt, eo monitis eiusmodi atque scitis politicis magis abundant. Verum quoniam haec saepe, nullo magistro, inter ipsum usum rerum discuntur, aut si aliunde fortassis sint accepta ab usu certam apud quammultos fidem inveniunt; creduntur ad experimenta pertinere, quum tamen sint aliquid ex iis nova ratiocinatione enatum, atque ad artem sive scientiam civilem pertinens. In hac sententia sane omnino fuisse Iustum Lipsium ex libris ipsius clarissimum est. Nec aliud voluere, qui ex historiis petendam prudentiam, qua tuae etiam possis consulere reipublicae, censuerunt. Qui enim alias, in rem tuam possis transferre qua Romanis quondam ex gr. profuere, nisi praecepto quodam communi ex historiis singularium rerum condito? Certe id qui non potest, frustra etiam in historia legenda perdit tempus.

⁴⁵⁹ Aristotle, *On Memory*, 449b25.

memories of the same thing.⁴⁶⁰ Only particular things are perceived by the senses. The intellect, by contrast only perceives those things which are abstracted from the particular things. So that if you have often observed that it is bad for feverish Peter to drink wine, you only know that wine is bad for feverish Peter, you do not yet know that wine is bad for all feverish people. An argument is necessary in order to form some universal and common notion from many particular experiments. Conring clarified that it is necessary for the notion to be both universal and *common*, by which he means applicable to an entire genus or class of things, because a universal knowledge of a particular may be known through particulars. Thus we can know all about feverish Peter from particular experiences with Peter, but not all about everyone.

These arguments were drawn from Conring's background as a professor of medicine. For example, Conring noted that the impossibility of a pure empiricism can be gathered from the fact that even the practice of *the* Empirical school of ancient medicine did not rely on experience alone. There were three schools of ancient medicine, the Rationalists, the Empiricists, and the Methodists. The Empiricists, Conring noted,

wrongly took the name "empirical," since they proposed universal pronouncements drawn from much experience, furthermore the early members of the sect allowed conclusions to be transferred from prior experience to similar cases that were not yet known by experience. And if we believe Cornelius Celsus (bk. 1 of the Preface) "they even contributed the evident causes of diseases as is necessary."⁴⁶¹

⁴⁶⁰ Aristotle, *Posterior Analytics*, II.19, 100a6.

⁴⁶¹ *De civili prudentia*, 7.4: schola inique empiricum nomen affectavit; quum tamen universalia pronunciata jactaret ex multis experimentis exstructa, imo ab iis transitum ad similia usu nondum comperta admitterent eius sectae primores. & si Cornelio Celso *l. 1 praefatio* credimus *evidentes etiam morborum caussas, ut necessarias amplecterentur.*

Again, as with Lipsius, Conring was critical of a school of scholars and practitioners who were not clear about their own practice. The Empiricists, despite their official line, were practicing science, indicated by Conring in the passage cited by referring to prediction and the knowledge of causes.

Conring's *Introductio in artem medicam* (*Introduction to the Art of Medicine*), which was based on his lectures on medicine from 1639 to 1644, reveals that Conring adopted the moderate Rationalist position of Galen.⁴⁶² Galen's *ars parva* was at the center of medical education along with Avicenna's *Canon* and Hippocrates's *Aphorisms* and *Prognosis* for centuries.⁴⁶³ Many professors of medicine in the seventeenth century took this position, including Bartolomeo Viotti, whose *De Demonstratione*, was one of Conring's favorite books. And as you will recall we saw in chapter three that other advocates of a science of politics were Galenists as well.

There is some debate over the history of Galenism in the sixteenth and seventeenth centuries and the extent of its contribution to medicine. It has been argued on the one hand that it was a sterile academic discipline by the seventeenth century, and on the other hand that it was a flexible, energetic body of ideas which successfully adapted itself to the increasing role of empirical observation in the sixteenth and seventeenth centuries.⁴⁶⁴ Part of the charge of this chapter is to examine how Renaissance Galenism

⁴⁶² For this position, important background and analysis, see James Allen, "Pyrrhonism and Medical Empiricism: Sextus Empiricus on Evidence and Inference," in *Aufstieg und Niedergang der römischen Welt*, II.37.1 (1993) pp. 646-690, p. 649. For publication information on the *Introductio in artem medicam*, see Maximilian Herberger, *Dogmatik: zur Geschichte von Begriff und Methode in Medizin und Jurisprudenz* (Frankfurt am Main, 1981), p. 302.

⁴⁶³ Ian Maclean, *Logic, signs, and nature in the Renaissance: the case of learned medicine* (Cambridge, 2002), p. 29.

⁴⁶⁴ Maclean, *Learned medicine*, pp.10-11. Maclean argues the positive view and cites literature there for the negative view.

contributed to political and moral thought, regardless of its contribution to medicine. As we have just seen, it may be that Galen's negotiation of an intellectual landscape of skeptics, empiricists, and rationalists is as valuable for politics and moral philosophy as for medicine.

The immediate source of Conring's Galenism is unclear. It has been argued that Conring took the Galenist line that had been taken by the faculty of medicine in Paris in the 1530s. The Galenists there had followed the faculty of theology in opposing empiricism, promising to teach only the works of Hippocrates and Galen and the other principles of medicine without reference to experimental results. A representative figure of this movement was Andreas Libavius (c. 1550-1616), who opposed the new experimental work of Paracelsus, but refused to present Galen's line where he had erred.⁴⁶⁵ Conring echoes this middle course between reason and experience, but he may have acquired his Galenism from a variety of sources, including Philipp Scherb, discussed in chapter three, or from his teachers in Helmstedt or Leiden.

Galen maintained that empirical observation was important, but that reason was necessary for the investigation of causes and unobservable features. The pure empiricist position held that there were no unobservable human features, and denied, for instance, that there were invisible pores through which sweat passes, a claim made by the Rationalists.⁴⁶⁶

Conring quoted Galen against the pure empiricist position at the beginning of his *Introductio* and concluded: "Indeed they are utterly mistaken, who think along with the

⁴⁶⁵ Herberger, *Dogmatik*, pp. 278-286, 305.

⁴⁶⁶ Allen, "Pyrrhonism," p. 651.

Empiricists that we can only arrive at an art through experience alone, arguing that all reason is uncertain.”⁴⁶⁷ He repeated this sentiment in his *De Civili Prudentia*, where he emphasized that demonstration was essential for certainty. “It is worthless, as some pretend, that we can only become certain through the experience of affairs. Nor indeed is there anything more false than this pronouncement: in as much as demonstration (*apodeixis*) provides the most certain belief in those things such as mathematics in which experience and use are lacking.” Yet as he made clear in the introduction to medicine, he agreed with Galen that experience should not be rejected totally, but should be joined with reason as far as possible. And again in the *De Civili Prudentia* he made room for experience in a confirmatory role. “We will not deny that use or experience incredibly confirms our belief in common political precepts. We believe in what Pliny stated in books 26 and 17 [of his *Natural Histories*] that experience is the most efficacious teacher of all things and that I have believed most in experiments.”⁴⁶⁸

Conring stressed experience and the senses heavily in his *Introduction to the art of medicine*, and he wrote that all demonstrations in medicine need to be based on empirically derived principles.⁴⁶⁹ The physician needed to infer his principles from

⁴⁶⁷ Hermann Conring, *In universam artem medicam singulas[que] eius partes introductio*, ed. Gunther Christopher Schelhammer (Helmstedt, 1687), 1.21, pp. 19-20: Enimvero oppido falluntur, qui cum Empiricis ad Artem sola experientia pervenire nos posse putant, omnem rationem incertam esse arguentes. Conring cites Galen at length from *Liber de theriaca ad Pisonem*, chapter 10.

⁴⁶⁸ Conring, *De civili prudentia*, 7.6, p. 314: Nec enim hoc pronunciato quidquam est falsius: quippe quum ἡ ἀπόδειξις certissimam praestet fidem eorum etiam, quae usum atque experientiam minime desiderant, qualia sunt mathematica. Non diffitemur ab usu confirmari mirifice Politicorum communium praeceptorum fidem. Credimus enim Plinio l. 26 & l. 17 *efficacissimum rerum omnium magistrum esse usum, experimentis optime credi*.

⁴⁶⁹ Conring, *In artem medicam*, 1.24, pp. 22-23. On the need for empirically derived principles: Constat vero, omnem Demonstrationem fieri ex principiis sensu & experientia cognitis: Unde liquet, ad quamlibet partem artis Medicae accurate & perfecte cognoscendam primo afferenda esse principia sensu & experientia cognita; quibus recte sese habentibus demum justas fieri demonstrationes. Cited in Edwin

experience, but then examine and prove them by means of demonstration. The physician needed to be trained therefore in logic and demonstration, which latter was not well-understood by even the most learned. The physician also needs to know the causes of a thing, since knowing something means knowing the causes of that thing. Experience is important for therapy as well as forming the basis for the aforementioned empirical principles in demonstrations in the theoretical part of medicine. For Conring experimental and observational knowledge was as important as a rigorous methodology of proof and demonstration. After all, he conducted extensive experiments in confirming William Harvey's theory of the circulation of the blood (published by Harvey in 1628), recommended anatomy and vivisection for learning physiology, and learning from experience in therapy.⁴⁷⁰

Conring's opposition to a pure empiricism showed some of the animus of the partisans of demonstrative science against skepticism. As we have seen, Melanchthon was motivated to implement a demonstrative science of politics by the fact of theological disagreement and the threat of skepticism. Conring was concerned with skepticism and with empiricism, and he implied that a pure empiricism of the type Lipsius advocated but does not in fact practice would tend towards such a skepticism or at least a lack of certainty about what is to be done in politics.

Conring and his contemporaries noticed the link between empiricism and skepticism in the ancient world. Many Empiricists were also Pyrrhonist skeptics, though the positions of the schools were not identical. The Empiricists, as Conring noticed,

Rosner, "Hermann Conring als Arzt und als Gegner Hohenheims," in *Beiträge*, ed. Stolleis, pp. 87-120, p. 96.

⁴⁷⁰ Rosner, "Conring als Arzt," pp. 96-98.

thought that the reason of the Rationalists was uncertain, since they could not agree on one set of causal explanations of disease and remedy, but offered many conflicting ideas. The Empiricists thought that in this case, the explanations of the Rationalists only had the weight of an orator's argument.⁴⁷¹ The Pyrrhonists were sympathetic to such claims, but were far more skeptical than the Empiricist line, since they suspended judgment about observable as well as unobservable phenomena, and were not willing to subscribe to the Empiricist dogma that unobservable phenomena do not exist.⁴⁷²

Conring, following Viotti and others, applied Galen's description of the ancient schools of medicine and philosophy to their contemporaries. As we have seen, Lipsius claimed that he was an empiricist, though it is not clear that he was. Bacon, on Conring's view, appears to have been truly an empiricist.⁴⁷³ Neither is said to be a skeptic, though

⁴⁷¹ Allen, "Pyrrhonism," p. 651.

⁴⁷² Allen, "Pyrrhonism," p. 653.

⁴⁷³ 'Praefatio' to B. Viotti, *De demonstratione*, ed. A. Froeling, (Helmstedt, 1661) in Conring, *Opera*, VI, pp. 397-402, p. 401: Petrus Ramus Aristotelis apodicticam plane tulit e medio: & Verulamius eius loco cudit nobis novum suum organum in solum τῆς ἐμπειρίας usu, hanc unam venditans scientiae methodum. "Petrus Ramus certainly removed Aristotelian apodictic from its central role, and Verulamius [Bacon] knocked in its place in his new organon only the experience of tes empeireias, offering this one method of science." Cited in Horst Dreitzel, "The reception of Hobbes in the political philosophy of the early German

Enlightenment," *History of European Ideas*, 29 (2003), pp. 255-289. Conring's view of Bacon was complex: he admired him for his attention to observation but criticized him for his scorn of the ancients. Conring, *Introductio in naturalem philosophiam*, 2.21, p. Hv: Neque vero aliter potuit evenire, utpote quum plerique vix aliquam habuerint rerum experientiam, omnibus certe demonstrandi peritia defuerit; qua sine scientias condere adunaton est. Certe & Ramus & Brunus, & Paracelsus & Telesius & Patricius & Verulamius tēn apaideusian nunquam non ostendunt: quinimo plerique horum demonstrandi artem non dubitant irridere. In uno Verulamio tamen laudaveris raram industriam observandi *ta phainomena*: quam in reliquis frustra quaesieris. "Nor can it be otherwise, since as it is natural many have hardly any experience of things, and everyone is lacking the skill of demonstrating, without which one is powerless to found the sciences. Certainly Ramus, Bruno, Paracelsus, Telesio, Patrizi and Bacon never stop showing their ignorance. Furthermore many of them cannot doubt that they mock the art of demonstrating. Nevertheless, you may praise that rare industry of observing the phenomena in Bacon, which you may search for in vain in the others." Cited in Dreitzel, "Conring," p. 136 n. 3. It should also be noted that though Bacon is famous for championing the inductive method, he did not apply it rigorously to ethics and civics and instead thought that civics should be treated in a more flexible manner, balancing general precepts with concrete exempla from "civil history," that is from histories whose causes could not be investigated

Conring opposed himself, and his hero Galen, to skepticism as well, which he identified with Descartes and his followers.⁴⁷⁴ The earlier generation of followers of Galen, such as Viotti, had identified skepticism not with Descartes and hyperbolic doubt, which had not yet appeared on the horizon, but with dialectic and the new humanist logics of Melanchthon and Rudolph Agricola.⁴⁷⁵

Though Conring did not devote much attention to the method of the best regime in his methodological works, it is worth briefly noting that Conring's attitude towards the best regime was consistent with both Albert's and his own empiricism. Conring's view is evident in a thesis he supervised on the topic in 1652. The thesis argued that the best regime was not to be thought of in abstract or as a one-size-fits-all pattern, but rather one that is fit to the circumstances. Here the same analogy used by Albert is invoked, though almost certainly not drawn from Albert's commentary.⁴⁷⁶ "For he would be an unskilled shoemaker, who wished to place the same shoe on everyone's foot, and even more so

thoroughly in the manner of natural history. Lisa Jardine, *Francis Bacon: discovery and the art of discourse* (London, 1974), pp. 150-168.

⁴⁷⁴ Conring, *In artem medicam*, note to 1.24, p. 36: Longe profecto haec praeferenda sunt novae & ineptissimae Cartesianorum doctrinae de fallaciis sensuum, & intellectui perspicuis, ut, qui modo pauca ista Galeni recto animo perpenderit, facile istorum dogmatum absurditatem & vanitatem cernere queat. "By far are these [works of Galen] to be preferred to the new and inept theory of the Cartesians concerning the deceptions of the senses and the lucidities of the intellect, such that whoever now weighs these few bits of Galen carefully can easily discern the absurdity and vanity of their beliefs."

⁴⁷⁵ Gilbert, *Renaissance concepts of method*, p. 153.

⁴⁷⁶ Conring apparently was unaware of Albert's commentary. He records very few works on Aristotle's *Politics* before the sixteenth century, noting only the commentaries of Thomas Aquinas, Jean Buridan, and John of Baconthorpe, which last is either an error, or is now lost. Conring, *Introductio in Politica Aristotelis* in his *Opera*, III, pp. 457-490, p. 488.

would he be a most imprudent political man who prescribed one and the same form of republic to each and every people without looking to see which fits which.”⁴⁷⁷

The ideal of a demonstrative science

Throughout the centuries there had been several attempts to integrate Aristotle and Galen’s method, and such integrated methods may have been taught at Helmstedt and Leiden during Conring’s education, through the works of Daniel Sennert or Duncan Liddel. What is clear is that such an integrated method was espoused by Bartolomeo Clivolo Viotti (d. 1568), a philosopher and physician in Turin, who taught medicine at the university there.⁴⁷⁸ Viotti was not terribly well known, but his work on the method and the philosophy of science, the *De Demonstratione*, became a favorite of Conring’s after he discovered it as a student in Leiden in 1629.⁴⁷⁹

Conring thought that the theory of demonstration, invented by Aristotle in his *Posterior Analytics* and developed by Galen was largely forgotten until Viotti. As discussed in the introduction to this study, there is no reason to particularly believe this story, but it is a story that Conring repeats several times.⁴⁸⁰ If Conring drew on Viotti for his general scientific approach and orientation in the intellectual landscape, he did not follow Viotti exactly on the possibility of demonstration in politics, though as we shall

⁴⁷⁷ Hermann Conring (praeses), *Dissertatio de optima republica*, resp. Joachim Behrens (Zell-Lüneburg, 1652) in Conring, *Opera*, III, pp. 823-839, p. 823.

⁴⁷⁸ Jöcher, s.n., Onorato Derossi, *Scrittori piemontesi, savoiard, nizzard* (1790), s.n. On Viotti’s Galenism, see Gilbert, *Renaissance method*, p. 153.

⁴⁷⁹ Bartolomeo Viotti, *De demonstratione, libri quinque* (Paris, 1560). Conring, [Introductory letter to Andreas Fröling], p. d3r. Cf. Conring, *Introductio in naturalem philosophiam*, 2.15.

⁴⁸⁰ Hermann Conring, [Introductory letter to Andreas Fröling] in Bartolomeo Viotti, *De Demonstratione*, ed. Andreas Fröling (Helmstedt, 1661), pp. [d2v]-d3r. Conring, *In artem medicam*, 1.24. In a note to the *In artem medicam*, he wrote that he thinks the new book on demonstration of Hartwich Wichelmann, *Analytica sive doctrina de demonstratione* (Helmstedt, 1679), was of equal value.

see, Viotti clarified the hurdles that Conring would need to overcome to show that such a science is possible.

Viotti addressed the question of whether there is demonstration in the practical disciplines towards the end of the *De Demonstratione*. He wrote that practical disciplines are those the goal of which is an action. The principal discipline among the practical disciplines is jurisprudence, which is divided into natural law, the law of the nations, and civil law. The last two do not really have demonstrations since they depend on the free will. Viotti said that there are principles (*principia*) in natural law and in those parts of the laws of nations and civil law which are deduced from it that are universal in so far as they are innate in all humans and some in so far as we are in the community of all natural creatures. Examples of such *principia* include “give each his due” (*Unicuique quod suum est esse tribuendum*) and “cause injury to no one” (*nemini iniuriam esse inferendam*). According to Viotti, these principles are obvious in the sense that as soon as one understands the words, one assents to their truth.⁴⁸¹

Though Viotti thought of medicine as a practical art, he thought that it was susceptible to a kind of demonstration. He wrote that it is an art since it is concerned ultimately with its end, action and the care of the sick. Viotti disagreed with the claim that there is a science as well as an art of medicine, arguing that everyone would agree that the end of medicine is healing and action and not contemplation which is the goal of the sciences. Despite all this, he thought that there could be demonstration in medicine, and noted that even beginners have noticed that there is a gradual move in medicine from

⁴⁸¹ Viotti, *De Demonstratione*, 5.6, p. 251. The Latin for the last assertion is: intellectis vocibus, animus noster acquiescit.

experience and observation to a demonstration of a kind from the causes which have been discovered.⁴⁸²

Conring took a similar line with politics, though he did so at great length and in far more detail. His greatest debt to Viotti was in the expression of the intuition which lay behind the argument that there is a kind of demonstration at work in medicine and politics. Just as Viotti argued that even beginners understand that there is more than experience at work in medicine, Conring argued that anyone who thought about politics must understand that there is more than experience or pure empiricism at work. There is demonstration of at least some kind. Conring made a stronger claim than Viotti in arguing that politics has developed, or may develop by a certain method and a set of principles and in so doing become a genuine science.

The possibility of a demonstrative political science of universals

In adapting the demonstrative ideal to fit political science, Conring accomplished two things simultaneously: he altered the general definition of science to be more amenable to empirical observation and to observation of human behavior in particular and he developed a different concept of human nature which would be susceptible to generalization.

The way that Aristotle wrote about demonstration in the *Posterior Analytics* was deductive, using the syllogistic form of argument, concluding from a major and minor

⁴⁸² Viotti, *De Demonstratione*, 5.6, p. 253: Quare & artem esse ex iis quae ante diximus est manifestum. Haud tamen repugnant artem hanc scientiae plurimum in se habere, & omnia illius praecepta demonstratione sciri, ut de artibus sub Mathematica comprehensis iam diximus. Id autem vel Medecinae tyronibus perspicuum evadet, si in demonstrandi praeceptis fuerint exercitati, & considerent quorsum omnium ore celebretur, Medicinam ratione & experiential constare, & cui alterum defecerit, hunc claudum esse, unoque tantum crure ambulare. Experientia etenim probatio per effectus comparatur: experientia sensui & intellectui manifesta annotantur, ex quibus dignitates & positiones in animo coalescent. Ratio autem effectuum causas disquirat, et demonstrationis genus fabricat.

premise. Jacopo Zabarella and the other Paduan Aristotelians had already adapted demonstration to accommodate natural philosophy. These professors developed what is called the “demonstrative regress,” a kind of combined inductive and deductive argument which first inferred a general principle from the empirical observation of particulars and then made deductions from the principle. This development of Aristotle’s demonstrative syllogism was well-known in Northern Europe, as attested to by the fact that it was mentioned in Burgersdijck’s textbook on logic among numerous other places.

One of the requirements of demonstration was that the premises be necessary and that the process of reasoning be necessary, so that the conclusion will be necessary. Aristotle defined necessity as incapable of being otherwise. Since he acknowledged that natural phenomena, such as the form of natural creatures, did occasionally diverge from the usual form, as when a sheep is born with three legs, he realized that his strict definition of demonstration did not apply to natural phenomena. It appears that Aristotle tried to remedy this difficulty by developing a kind of demonstrative syllogism the premises of which would not be strictly necessary but only necessary “for the most part.” This syllogism, whether it should be included as a kind of demonstration or not, is called a “modal” syllogism.⁴⁸³ The modal syllogism was of great interest during Conring’s time, and it seems that Conring even hoped to write his own treatise on the subject though he never did.⁴⁸⁴

⁴⁸³ Jonathan Barnes, “Aristotle’s Theory of Demonstration,” *Phronesis* 14 (1969), pp. 123-52. Rpt. in *Articles on Aristotle*, eds. Jonathan Barnes, Malcolm Schofield, Richard Sorabji (4 vols., London, 1975-1979), I, pp. 65-87.

⁴⁸⁴ Daniel Morhof, *Polyhistor* (Lübeck, 1708).

The main alteration that Conring suggested to the theory of demonstration, and thus to the theory of science, was to suggest that there could be a demonstrative modal syllogism the premises of which were only necessary “for the most part.” In the centuries since Aristotle’s *Posterior Analytics* became available in the Latin West, the meaning of “for the most part” and necessity in Aristotle’s works have been a matter of controversy, especially in relation to the demonstrative syllogism.

Part of the question is whether it the subjects of the premises that must be necessary, which is referred to as *de re* necessity, or whether it is the relationship between the subject and predicate in the premises—that is the proposition as a whole—that must be necessary, which is referred to as *de dicto* necessity. Conring considered the question of whether there could be a “for the most part” demonstrative science of politics mostly in terms of *de re* necessity. This is in keeping with the many statements about the relative precision of the sciences in Aristotle’s writings which refer to the nature of the phenomena itself. So, ethics is said to be less precise than mathematics because actions are more variable than mathematical objects.

De re necessity was important to Conring, because for him it was the nature of the thing—mediated through the demonstrative argument—which corresponded to the level of epistemological certainty. Conring thought that there was a correspondence between the epistemological certainty of the knowledge of a thing and its ontology. “Indeed the nature of our knowledge varies according to thing which is known, for in so far as thing is necessary or more or less contingent, so the knowledge will be rendered more or less certain.” Though Conring was concerned with the formal apparatus of explanations, the syllogism, he made the possibility of certain knowledge, that is science, conditional on

the necessity of the kind of *thing* to be explained rather than on the necessity of the proposition or the premise of the syllogism. “And therefore it must be explained before all else what constitutes the necessity or contingency of civil actions or affairs, from which it is apparent, at least with regard to the subject matter, that there can be either certain or uncertain political knowledge.”⁴⁸⁵

Part of the puzzle over Aristotle’s meaning, and the meaning for scientific explanation, is what Aristotle meant by ranging necessity from “contingent” to “for the most part” to “necessary.” Aristotle and his interpreters were justifiably confused about the relationship between necessity, or modality, and quantification. Today, the most popular interpretation of modal terms is not tied to scope, but to the truth values of a proposition in a set of possible worlds. A proposition is necessarily true when it is true in all possible worlds. When human action is said to be contingent it implies that there is always a possible world in which the actor could have done otherwise. In the contemporary interpretation of necessity there is a logical difference between the propositions “It is necessary that all humans are rational animals” and “All humans are rational animals.” Conring and his contemporaries did not treat these distinctly and it is often difficult to perceive the difference between a universal proposition and a necessary proposition in their writings.

Conring’s teacher in Leiden, Franco Burgersdijck, addressed this issue in his

Institutes:

⁴⁸⁵ Conring, *De civili prudentia*, 8.20, p. 322: Cognitio enim nostra, a re, quae cognoscitur, variam naturam accipit: prout nimirum res illa aut necessaria est, aut contingens magis minusve, ita & cognitio certa vel incerta redditur...Eoque ante omnia actionum aut negotiorum civilium quae sit necessitas vel contingentia, expendum est, quo pateat, quam a parte saltim objecti, vel certa vel incerta possit esse politica cognitio.

...Indeed whether you say, “It is necessary that every man is an animal,” or, “Every man is an animal,” both are universal. The quantity of mode is the quantity of location and time. Indeed, the mode “necessary” includes the adverbs “always” and “everywhere.” [The mode] “impossible” includes the adverbs “never” and “nowhere, which have the power universal negation. [The modes] “possible” and “contingent” include the adverbs “sometimes,” “rarely,” “mostly,” which have the power of partial affirmation.⁴⁸⁶

In keeping with this view, Conring wrote as though the degrees of necessity corresponded to degrees of universality. However, Conring modified the traditional categories somewhat in the interest of extending science to phenomena which he thought could only be characterized as “for the most part.” Thus he defined scientific knowledge as knowledge which very rarely errs (*cognitio rarissime fallat*) rather than knowledge which never errs. Burgersdijck claimed that the adverb *raro* corresponded to the modal operator of possibility, not necessity.

The interpretation of necessity in terms of quantification is certainly the most useful interpretation from an empirical scientist’s point of view, since it makes it possible to achieve necessity by counting. The more broad use of the term science is the extension of it to subject matter which only happens “for the most part” or can only be characterized in propositions which have “for the most part” quantification. As we have seen, it was a commonplace that natural things, the subjects of physics, were *hos epi to polu*, as is mentioned in Piccart’s *Isagoge*. Piccart and Conring, among many others, think that *prakta*, or actions, are similarly *hos epi to polu*.

⁴⁸⁶ Franco Burgersdijk, *Institutionum logicarum libri duo* (Cambridge, 1666), 1.29.9.1, p. 94: Quantitas dicti eadem est cum quantitate purae enunciationes. Sive enim dicas, *Necesse est omnem hominem esse animal*, sive, *Omnis homo est animal*, utraque est universalis. Quantitatis modi, est quantitatis loci & temporis. Modus enim *necesse* includit adverbia *semper & ubique*; *impossibile* includit adverbia *nunquam, nusquam*; quorum illa vim habent universaliter negandi. *Possibile & contingens* includunt adverbia *aliquando, raro, plerunque*, quae vim habent particulariter affirmandi. Note that this section is not included in the 1697 English abridgment and translation.

Conring drew on parallels to law and medicine to prove that there are sciences which are for the most part. Galen wrote that what is useful is what happens for the most part, not what happens rarely or randomly. In medicine, this seems to be an issue of predictability. We need to know that a cure works at least most of the time.⁴⁸⁷ The jurists are more concerned with fairness. Laws cannot cover all instances, which is why there is a need for equity, for *epikeieia*, which entails that laws only hold for the most part, since the judge can choose to depart from them if necessary.⁴⁸⁸

The question is whether some crucial aspect of scientific explanation is lost through such an interpretation. It appears that there is such an aspect, since the fact of generality alone, especially generality well short of universality, is not sufficient to preclude the possibility that the observed behavior is not serendipitous. Such concerns continue to bother present-day methodologists of political science, who have devised the methods of rational choice, counterfactual reasoning, and natural experiments in part to meet this concern.

The corollary of adopting the formal requirements of demonstration to an empirical science is the characterization of the subject matter, here, political behavior and institutions, as susceptible to scientific knowledge. The transformation of the world to fit a conception of scientific knowledge has been described as one of the hallmarks of the scientific revolution. In the standard account of the scientific revolution it is the transformation of the natural world into one of cause and effect. Here Conring

⁴⁸⁷ Conring, *De civili prudentia*, 8.35, p. 326, citing Galen, *In librum Hippocratis de victis ratione in morbis acutis Commentarij 4*.

⁴⁸⁸ Conring, *De civili prudentia*, 8.33, p. 325.

transformed the world of human action into a law like world which makes generalization possible and a world in which human actions exhibit a certain necessity.

The understanding of necessity in terms of rational choice did not require any modification of human nature and was in fact highly traditional, dating back to the thirteenth century at the very least, as we have seen. The understanding of modality in terms of quantification, however, and thus necessity in terms of universality, or near universality, required a corresponding transformation in the view of human nature so that statements about human behavior could be made general.

The entire tradition of political science discussed thus far has resisted the idea of general empirical statements about human behavior. This was the case with Albert, since he thought that the principles were universal only in abstraction, and was certainly true of the Florentine political writers who stressed prudence and the individuality of circumstances.

Given Aristotle's definition of political science as a starting point, it may seem natural to us that Conring should have taken this approach if his purpose was to make politics a science. But the naturalness of this approach is only because we are so comfortable with the kind of science—natural empirical science—that he was approximating with these changes. We should not at all take it for granted that this was the only way for politics to become a science, or even, a demonstrative science.

The uniqueness or contingency of Conring's science of politics is apparent when one considers that the professor of law at the University of Lund and well known contributor to the field of natural law, Samuel Pufendorf (1632-1694), when faced with the same demonstrative framework, took quite a different approach in his *De jure naturae*

et gentium of 1672. Pufendorf by this point was well accomplished. Before coming to Lund, he had published a work on natural law in the style of geometric deduction in 1661, called the *Elementa jurisprudentiae universalis*, had become the first professor of the law of nature and nations ever at Heidelberg, and written a pseudonymous and very controversial study of the constitution of the Holy Roman Empire.

Pufendorf did not develop an empirical science of politics, but a science of general propositions about politics. He thought that there can be general rules in moral and political affairs since there are general rules for the consideration of circumstances in judgment. The fact that there are differing circumstances does not rule out the possibility of generalizing.⁴⁸⁹ He held that demonstration in such matters is possible because in abstraction there are necessary links between actions and effects.⁴⁹⁰ Crucially, Pufendorf wrote that the propositions of a demonstration do not need to be *de re* universal and necessary, but *de dicto* universal and necessary.⁴⁹¹

Pufendorf complained that philosophers had

rashly excluded this noble way of proof [i.e. demonstration] from many parts of knowledge which had a just title to its possession. The chief occasion of the error was this: They found it laid down for a rule, that the subject of a demonstration ought to be necessary, which they interpreted as if in a demonstrative syllogism the subject of the conclusion to which the predicate was applied ought always to be a thing necessarily existent, as for example, in that threadbare instance, “Man is rational, therefore visible” the subject of the demonstration is man who must be owned for a necessary being. But in reality the subject of a demonstration is not any one single term, but some entire proposition, the necessary truth of which is from settled principles syllogistically inferred. Where it signifies little whether or no the subject of this demonstrable proposition necessarily exist, but `tis

⁴⁸⁹ Samuel Pufendorf, *The law of nature and nations*, trans. Basil Kennet (5th ed., London, 1749), 1.2.5, p. 15.

⁴⁹⁰ Pufendorf, *The law of nature and nations*, 1.2.5, p. 15.

⁴⁹¹ Pufendorf, *The law of nature and nations*, 1.2.2, p. 13.

sufficient, if granting its existence such certain affections necessarily agree to it, and if it can be made out, that they do thus agree to it, by undoubted principles.⁴⁹²

Unlike Conring, Pufendorf did not understand the claims of the formal requirements of demonstration to entail ontological requirements of political subjects. Rather, he thought that a science of politics could be developed by the framing a science which emphasized the *logically* necessary connections between subjects and predicates. By interpreting the necessity required by demonstration as the necessity of entire propositions, that is *de dicto*, rather than of the subject and predicate, that is, *de re*, Pufendorf could ascribe to his science of politics the same necessity as that used in mathematics or other axiomatic sciences. Conring referred here to Aristotle's division of necessity into absolute and hypothetical necessity.⁴⁹³ Absolute necessity is the natural necessity by which the basic material elements behave in a regular manner, and is also the sort of necessity that applies to mathematics. Hypothetical necessity is the necessity that follows from the specification of an end. So, if one wants to make a saw then it is necessary that it be made of hard material, otherwise it will not cut and will not be a saw. It is hypothetical because it is not necessary that there be a saw in the first place, but if there is to be a saw then it has to be hard. Conring, and, as we shall see shortly, his predecessors applied hypothetical necessity to practical as opposed to merely productive actions.

For Conring, human actions are not completely contingent because they are partly determined by nature and by that to which we have accustomed ourselves. The impress of

⁴⁹² Pufendorf, *The law of nature and nations*, 1.2.2, p. 13.

⁴⁹³ Aristotle, *Phys* 200a2-5, PA 642a1ff., GC 337b30ff.

nature on one's behavior is so marked, that it can be observed by the art of physiognomy in the very bodies of humans. People rarely use their whole free will but rather tend to do what they are naturally inclined to do or what they are accustomed to do. Conring, like the astrologers discussed earlier in this study, was sure to note that there was still room for free will. But as in the case of the astrologers, one gets the impression that the protest is necessary only because the general movement of the theory is in the opposite direction. This is evident in his tentative defense of free will:

I do not affirm that that natural propensity or accustoming so governs the actions of man that they cannot be otherwise. On the contrary, I grant that there is no habit of some virtue or vice that is so firm that it is in the roots, so to speak, that if it is not uprooted can hardly be moved in the opposite direction. But men rarely use their full free will, but mostly follow the direction in which that natural inclination leans or allow themselves to be led by these habits to which they are accustomed.⁴⁹⁴

Remember that the Aristotelian definition of necessity is that it “cannot be otherwise,” so the thought is that there is no natural propensity such that a person's actions are necessary.⁴⁹⁵

There is no question that Conring was heavily influenced by physiognomy in his arguments about natural propensities. Physiognomy was popular in Renaissance medicine,⁴⁹⁶ and Conring edited Scipio Chiaramonte's 1625 *Semeiotike*, one of the major

⁴⁹⁴ Conring, *De civili prudentia*, 8.25, p. 323: Non ego affirmo naturalem illam propensionem vel assuefactionem ita hominum actiones moderari, ut aliter sese habere nequeant: ultro enim largior, nullum ipsius virtutis vel vitii habitum adeo firmis, ut ita loquar, esse radicibus, quin si non evelli, saltem moveri in adversa possit. At vero homines raro utuntur plena arbitrii sui libertate, sed plerumque illuc, quo vergit naturalis illa inclinatio, sequuntur, aut patiuntur sese duci ab iis moribus, quibus assueti sunt.

⁴⁹⁵ Aristotle, *Metaphysics*, 1015a34-36.

⁴⁹⁶ It is not clear that this is a part of medicine according to Conring. For, he argued following Caspar Hoffman, that knowledge of the soul was not a part of medicine, since it was not required for a physician to do his job well. *Introductio in artem medicam*, p. 6: Medico, cognitu necessariam non esse, utpote quum ea ignorata nihilominus opus suum optime possit exercere. Cited in Rosner, “Conring als Arzt,” p. 94.

works on physiognomy. Moreover, Conring's line about free will and nature was one of the conventional views on physiognomy. This view was taken, for instance, by the professor of medicine at Basel, Guglielmo Gratarolo (1516-1568), who wrote in 1553 that "because men mostly live sensually and no one except wise men live according to reason, therefore physiognomy is the science of predicting practices and acts for the most part, since most live according to their appetites and senses than according to reason."⁴⁹⁷

Conring wished to impute some regularity to human action that would allow for a science of politics. This is evident in this discussion of natural and customary inclinations where he argued not just that there was a physical or psychological necessity to most human actions but that most individuals conformed to broad categories of men. "I say such things happen 'mostly,' but I refrain from saying 'always.' Most individuals live according to their habits as young people and elderly, for example, or the rich and the poor, nevertheless you may find others who behave differently, though they are more rare."⁴⁹⁸

He thought there are human propensities, but he also thought that divine providence or fate (he equated the two) rarely operates in human actions and that fate "loosens its reins for the judgment of men."⁴⁹⁹ This objection of Conring's to fate—which played such an important role in Machiavelli—has been noticed before as one of

⁴⁹⁷ Gulielmo Gratarolo, *De praedictione morum naturarumque hominu[m] ex inspectione vultus, aliarumque corporis partitu[m]* (n.p. [Zurich?] 1553): quia homines plerunque vivunt sensu, et non nisi sapientes vivunt ratione, ideo physiognomia est scientia praedicandi mores actuales et effectus ut in pluribus, quoniam plures appetitu et sensu vivunt, quam ratione. Cited in Maclean, *Learned medicine*, p. 316.

⁴⁹⁸ Conring, *De civili prudentia*, 8. 25, p. 323: Plaerumque aio, talia fiunt: semper ita suis singuli vivunt moribus; invenias tamen, qui aliter sese gerant, etsi rariores.

⁴⁹⁹ Conring, *De civili prudentia*, 8. 26, p. 323: plaerumque [sc. divina providentia] laxat frenum hominum arbitrio.

the key differences between Conring and Machiavelli.⁵⁰⁰ But his objection here may not be so much to the likes of Machiavelli but to the very orthodox Protestants, since the rest of the passage is about being able to distinguish what is supernatural from what is natural. It would not be too extravagant to suggest that this whole discussion of free will and fate is inspired by the Hoffman affair and the attempt of Conring's teachers and the philosophy department as a whole at Helmstedt to create a space for a natural sphere besides the theological one.

The research methodology: How to find propositions in universal political science.

Once Conring proved to his satisfaction that there can be certain or scientific knowledge of particular and universal propositions about politics, he turned to the question of how that knowledge is acquired.⁵⁰¹ In earlier treatments of civil prudence this had been a conventional topic, where the author discussed how prudence was to be acquired by the individual reader, usually a ruler or administrator of some kind. The conventional view was that such civil or political prudence was acquired through personal experience and the reading of histories. As we have seen, prudence was conceived of as a moral or mental disposition or capability of decision making. This is, in

⁵⁰⁰ Michael Stolleis, "Machiavellismus und Staatsräson: Ein Beitrag zu Conrings politischem Denken," in Michael Stolleis, *Staat und Staatsräson in der frühen Neuzeit* (Frankfurt am Main, 1990), pp. 73-105, pp. 76, 98. Conring notes his disapproval of Machiavelli's view of fortune in his extensive notes to a Latin translation of Machiavelli's *Prince*, ch. 25, "To what extent fortune prevails in human affairs, and how it can be resisted." Stolleis suggests that the "pessimistic worldview" of Machiavelli was foreign to Conring and incompatible with God's grace, p. 98. Stolleis also suggests that Conring took the more standard religious line of the university professor compared to the "freer spirits" outside the university, such as Bacon, Descartes, Hobbes, Spinoza, and Leibniz, p. 104. Stolleis does not claim definitively that Conring would have abandoned his beliefs outside the university setting, but hints as much. Regardless, this entire question of the relationship between the university debates (continuous from the middle ages on) on free will and determinism and fate and fortune in Machiavelli and others, deserves far more attention and research.

⁵⁰¹ Conring, *De civili prudentia*, 10.1.

other words, the transition from establishing the possibility of a science to a discussion of research methodology. It has been argued that the effect of Paduan Aristotelian philosophy of science was to reinterpret science as a kind of knowledge to a research methodology. This, in turn, it is argued gave way to the empiricism of the seventeenth century which was so important in the great scientific discoveries.⁵⁰² Conring, as we have seen, was opposed to a *pure* empiricism, but was nevertheless committed to empirical observation.

The question of whether universals could be inferred from particulars was a traditional point of contention. Aristotle wrote about induction or inference (*epagoge*), but what he meant by it is far from clear. He used it in various senses to refer to kinds of general statements and the movement from speaking more particularly to more generally, but he only once used it in a context that resembles empirical generalization. There is a passage in Sextus Empiricus's *Outlines of Pyrrhonism* in which there appears an argument against empirical induction based on the fact it is impossible to include all the relevant particulars because they are infinite, but Sextus himself took an ambivalent position towards empirical induction. This debate over the possibility of empirical generalization carried over into the seventeenth century. Jacopo Zabarella, the professor of logic and natural philosophy at Padua, wrote that a kind of induction was possible from singulars since the mind intuitively grasped the essential connection between subject and predicate after considering a finite set of singulars.⁵⁰³ The professor of medicine in Padua Santorio Santorio took an ambivalent position on the subject, arguing

⁵⁰² Randall, "The development of scientific method in Padua."

⁵⁰³ J. R. Milton, "Induction before Hume," *The British Journal for the Philosophy of Science* 38 (1987), pp. 49-74, pp. 51-3, 56, 71.

hotly in 1603 that such induction was impossible because “if you induce through a thousand million, still you will not be able to derive a universal conclusion, since any universal species whatsoever subsumes infinite particulars.”⁵⁰⁴ But elsewhere, Santorio claimed that such induction was sufficient. It has been argued that this inconsistency is a “clear mark of a transition in attitudes towards induction.”⁵⁰⁵

Propositions about particular things are learned from experience or the reading of histories, though the reading of histories is not without its problems. There is the further problem with what we would call an observational science, Conring noticed, in that induction from particulars cannot decisively affirm or deny a truly universal proposition about a class of things without universal experience, but it is impossible to experience everything in civil affairs, if only for the reason that most of the particulars are still in the future. But if there cannot be certain universal propositions, there can be probable universal propositions:

A universal proposition concerning civil affairs cannot be acquired by induction, nevertheless it can be considered probable (*verosimilis*), that it may be held firmly, until that universality has fallen by a counterexample. And such a proposition retains the second degree of universality, that is certainly true for the most part and very rarely errs.⁵⁰⁶

⁵⁰⁴ Santorio Santorio, *Methodi vitandorum errorum omnium* (Venice, 1603; Geneva, 1630). Cited in Maclean, *Learned medicine*, p. 168, citing Wear, 1981, p. 253: quini modo si per milliona milia induceres adhuc non posses conclusionem universalem haurire, quoniam quaelibet soecies universalis sub se continet infinita particularia.

⁵⁰⁵ Maclean, *Learned medicine*, p. 169.

⁵⁰⁶ Conring, *De civili prudentia*, 10.5: Universalis de civilibus rebus enunciatio inductione haberi nequeat, perquam verosimilis tamen potest accipi, quaeque firmiter tenenda est, donec adverso exemplo universalitas illa labefactata fuerit. Id quod etsi fiat, manet tamen propositioni secundus universalitatis gradus, quod nempe de plerisque vera sit & rarissime fallat.

This passage has plausibly been interpreted as an instance of the conjectural method, since these universal propositions are not verifiable, but they are falsifiable.⁵⁰⁷ But Conring does not mean to say that we should identify falsifiable hypotheses and test them; there is no sense here of experimental falsification. Rather, he wishes to prove that universal propositions are possible in civil affairs, even if they cannot be held with absolute certainty.

These probable universal propositions usually state relationships rather than causal explanations. They most often do not state the cause of some predicate, but merely notice a general subject-predicate relation. This is because noticing causes is very different from normal induction, is very rare, and only obtained with great difficulty. But in the cases where the cause is determined it is far more likely that the proposition will lack all exceptions and be truly universal.⁵⁰⁸

Conring noted that a demonstration in political science often does not rely on induction alone, but on a mix of types of reasoning. He gives the following example:

<i>Major</i>	Whatever corrupts a constitution is to be rejected.
<i>Minor</i>	Civil unrest corrupts aristocracies, democracies, oligarchies, monarchies and all other species of constitutions
<i>Conclusion</i>	Civil unrest therefore is to be rejected.

His logical analysis of the example states that

⁵⁰⁷ Seifert, *Cognitio*, p. 133.

⁵⁰⁸ Conring, *De civili prudentia*, 10.5: Si occasione inductionem conficiendi causa ipsa rei fiat manifesta, longe certius & facilius ad omni exceptione carentem universalem propositionem pervenitur quidem; verum illa sciendi ratio longe est alia ab inductione, nec nisi rarius & tardius solet obtineri sine magna difficultate.

The minor premise was sort of taught by induction, by contrast the major relied closely on that axiom that “anything which causes a thing to be lost, is to be rejected.”⁵⁰⁹

This example and his analysis offer an example of the adaptation of formal Aristotelian methods to an empirical science of politics. The major premise applies the general axiom of “anything which causes a thing to be lost, is to be rejected” and changes it into a premise which belongs *per se* to the science of politics: “whatever corrupts a constitution is to be rejected.” Here it seems that again Conring is following the practice of the *Posterior Analytics*. He uses “axiom” here in its technical sense as a principle which does not belong to any science in particular and can be used across the sciences. Other common axioms are the law of noncontradiction and that equals from equals are equals. The minor premise is clearly an example of induction and of the probable, but tentative, universal rule just discussed. The question of the effects of civil unrest or discord was a popular one at the time, made famous by Machiavelli’s counterintuitive argument in the *Discourses* that discord was actually good for a commonwealth.

Causal explanation

Conring presented causal explanation as an addendum to demonstrative science. There can be demonstrative knowledge of the fact that something is the case without knowing why it is the case, but demonstrative knowledge that includes causal explanation is preferable and the most scientific kind of knowledge.

At the same time he connected the issue of causal demonstration with deliberation, which is a kind of practical knowledge. This is confusing since he stated--as we have seen—that he intended in the *De Civili Prudentia* to treat the theoretical aspect

⁵⁰⁹ Conring, *De civili prudentia*, 3:340, 10.6.

of political knowledge. There is evidence that what he was envisioning was a kind of reasoning in medical practice. For he thought that the material and efficient causes were important for identifying the essences and affections of disease. It may be that Conring thought of deliberation in political science as akin to the therapeutic reasoning of doctors,

Conring implied that the purpose of political science was to selecting policies or action which were useful for the commonwealth. Conring explained that the final cause is necessary in order to think about whether something is useful or not for the commonwealth, since one needs to have a sense of the goal one is aiming at to know whether a given action is useful or not at attaining the goal. By the same token, he thought that the other causes were important for knowing whether something was useful or not, since to know whether a means to an end is the most fitting means or not, one needs to know whether it is appropriate both in terms of its own nature and with respect to the subject of the action.⁵¹⁰

Political science, like ethics, is concerned with actions. And the four causes, therefore, which all apply to politics, are defined by their role in action. The final cause is the reason for acting, the material cause the object with which the action is concerned, the efficient is the actor, and the formal is the “political means or the political method of action.” There are only five questions that can be asked of politics (or of anything), and except for “whether it exists,” which can be proven by several different causes through an argument from effect or from a sign, the others all correspond to one cause. So, the formal cause answers “what it is, or what kind it is,” the material cause answers “what is

⁵¹⁰ Conring, *De civili prudentia*, 8.31, p. 324.

it concerned with, or what is it from,” the efficient cause answers, “by whom or by whose assistance was it done,” and the final cause answers, “why it is.”⁵¹¹

He says, for example, that all four causes can be observed in the creation of magistrates. The final cause explains the reason that the magistrates were instituted, i.e. for the good of the regime. The efficient cause states who created the magistrates. The material, which people were named to the magistracies, and the formal, whether they were elected to the magistracies or in what manner they were assigned to the magistracies.⁵¹²

Conring offered an example of his political science in practice in his work on all the more notable regimes in the world. His introduction shows how his general political science is connected to the study of particular regimes. General political science, he argued, requires a study of history but not of events, rather the description of particular regimes. There are some ancient examples of such studies. as in Strabo, and Aristotle apparently wrote such studies on 250 regimes, but his works are lost.

The knowledge of a state’s laws is insufficient. One must know about its finances, its military strength, the state of commerce and import and export, the laws. One must further investigate the four causes of a *respublica* understood as a “multitude of people who have joined together for the sake of living civilly or acting well.”⁵¹³

⁵¹¹ Conring, *De civili prudentia*, 10.21.

⁵¹² Conring, *De civili prudentia*, 10.17: Est autem finalis, cuius gratia actus est; Materialis, objectum illud, circa quod actus versatur: Efficiens, ipsa actrix: Formalis, ratio civilis, sive politicus modus actionis.

⁵¹³ Conring, *Examen*, p. 50: Quid est tale integrum corpus? Est nihil aliud, quam multitudo hominum inter se consociata, vitae civiliter vel bene agendi gratia.

The material cause requires investigation into population, and the qualities of a people's bodies, their minds, and other *fortuna*e. The qualities of the bodies include whether the people are strong or weak, melancholic or not. The qualities of mind include those that are from nature, education, and custom. All this is relevant to politics, since the nature of the population determines what sort of regime is necessary, strict or not, and how successful it is likely to be. Material cause also includes how religious a people is, and also the availability of natural resources for food and clothing. Also, the climate and other natural resources, such as metals, and whether the country will have to import certain goods or not. Conring includes considerations of the economy under the material cause, especially in terms of the tax base. He thought of the economy in terms of mercantilist ideas, arguing that a country can undertake great things only if it has strong financial support via taxation to pay for a military.⁵¹⁴

The first consideration under the material cause in the case of England is its geography. Conring noted that it does not have many ports or rivers which terminate in the sea. This helps protect them, since an enemy which wished to attack England does not have many ports to choose from.

When discussing Conring's views on physiognomy it is worth taking a moment to consider the relationship between physiognomy and nationalism or racialism. It has been argued that Conring's views on the nature of peoples is a precursor to both theories.⁵¹⁵ This claim relies on a more general view of Conring's political thought as statist through and through without any ethical limits or purpose aside from stability and state-

⁵¹⁴ Conring, *Examen*, pp. 51-2.

⁵¹⁵ Rosner, "Conring als Arzt," pp. 103, 119.

building.⁵¹⁶ Though this latter view of Conring can be firmly rejected, there is slightly more to the claim that his views are related to nationalism and racialism. It is not that Conring's views distinctively contribute to these theories, but Conring did believe that the nature of peoples can be considered as a material cause in an explanation of action, and it is worth noting that in this episode in the development of a science of politics, explanation is at least in some cases tied to what we would think of as spurious generalization. The view that peoples as a whole had general tendencies to act in certain ways was certainly much older than Conring⁵¹⁷ but the worry is that there is something different about such views in the wake of Westphalia and the incipient nationalism of the day.

It is worth noting that in the attempt to generate a science of politics the attempts at moving beyond the explanation of individual action were fraught with ethical and explanatory difficulties. It is more difficult to say that Conring is truly a racist in the nineteenth or twentieth century sense of the term. Conring did attribute general characteristics to peoples, as when he accused the Styrians and Tyroleans of cowardice and laziness, but he does not warrant the added judgment of a commentator that "one has the impression that he hardly considered the Styrians and the Tyroleans to be German peoples."⁵¹⁸

⁵¹⁶ Rosner explicitly relies on Erik Wolf, "Hermann Conring (1606-1681)," in his *Grosse Rechtsdenker der deutschen Geistesgeschichte* (4th ed., Tübingen, 1963), pp. 220-252.

⁵¹⁷ For an early statement of this view, see Albertus Magnus, *De bono*, ed. H Kühle et al., *Alberti Magni Opera Omnia*, vol. 28 (Münster in W., 1951), p. 39, vv. 13-29.

⁵¹⁸ Rosner, "Conring als Arzt," pp. 106-7: "man hat den Eindruck, als ob er die Steirer und die Tiroler gar nicht für deutsche Stämme hielte."

The main evidence for Conring's alleged proto-racialism is his discussion of Tacitus's portrait of the Germans in the *Germania*. Tacitus had set out what would be described in the twentieth century as the "Aryan" ideal of the German: blond, blue-eyed, tall, and light-skinned. Conring, who was generally skeptical of Tacitus's *Germania* and much more critical than Ulrich von Hutten and other German humanists, who took the *Germania* as a model and inspiration for a national ideal. Conring argued that the present appearance of the Germans, which did not match Tacitus's description, could be explained by intermarriage, especially with the Romans. But Conring also wrote that the changes may have been in part due to the way of life of the Germans in the intervening years, and this has been called a proto-Lamarckism.⁵¹⁹

It is the connection between mores and biology, in both directions, that would make Conring a forerunner of the racialist theories of the nineteenth century. But there is a crucial difference between the racialist theories and Conring and his contemporaries belief in the connection between ways of life and biology. Conring and his contemporaries, as we have seen with respect to physiognomy, thought that biology and behavior were connected on the individual level as well as the national level. One of the pieces of evidence for this view is a comment that Conring made in the study of Tacitus about the effect of Christianity on the mores of the German Barbarians, "The Barbarian mores were somewhat changed and softened by the Christian piety. For along with the doctrine of piety grew luxury and avarice, the traditions of peace and the failings of

⁵¹⁹ Rosner, "Conring als Arzt," p. 100.

leisure.”⁵²⁰ Unfortunately this passage was picked up by one of the leading racialists in Germany, the librarian at the University of Göttingen and the founder of the Gobineau Society, Ludwig Schemann (1852-1938), who saw in it what he took to be the correct attitude towards Christianity. Schemann claimed that “Conring already saw the negative effects of Christianity on the race and courageously identified it by name.”⁵²¹ This does not properly characterize Conring’s passage though. First of all Conring in this passage made no connection between biology and mores, but rather charts shifting mores. Second, he characterizes the onset of Christianity as a trade-off, where something has been lost and something gained rather than a process of degeneration. His language echoes nothing so much as the great historians of Rome, such as Sallust, who worried that leisure brought new concerns to Rome. One could read this passage of Conring’s not so much as a criticism of Christianity, but a warning of the challenges that come with peace, which must be managed without a return to war or barbarianism.

Conring considered the final cause as the goal of the state. The goal for every state ought to be the happiness of the citizens defined as virtue and sufficiency of goods. In practice, this is the goal of some states, which seek out the happiness of all their citizens. Other states do not have such a goal of making all happy, and are rather only concerned with the happiness of the rulers. Still other states make a gross error of thinking that the goal of the state is domination. “Nevertheless, many are persuaded, and many private individuals think, that they are happy if they can command others.” This

⁵²⁰ De hab. 30: barbari mores Christiana pietate imbuti nonnihil sunt et mitigati. Una enim cum pietatis doctrina luxuria succrevit et avaritia, vetera pacis et otii mala. Cited in Rosner, “Conring als Arzt,” p. 100.

⁵²¹ Ludwig Schemann, *Deutsche Klassiker über die Rassenfrage* (Munich, 1934), p. 366. Cited in Rosner, “Conring als Arzt,” p. 100.

was the case with the Romans and the Spartans and those nations of his day which tried constantly to extend their rule and never rest. Other states have the goal of wealth, though this is really fit for business not for the state. Others, pleasure.⁵²²

One is tempted to say that Conring's approach to the goals of states, despite his ultimate judgment of the proper goal of states, is part of a new empiricism, that it is more descriptive than the methods of previous students of politics. However, while it is more systematically presented and categorized than in the commentary literature on Aristotle's *Politics* from the thirteenth century on, the position is more or less the same: there are various states with various ends and some of these are mistaken about what the proper end of a political community should be. Certainly, there is a greater and more systematic attention to contemporary political phenomena than in the medieval literature, as Conring classified the various states of his time under the various headings.

The efficient and formal causes are the means to the ends stated as the goal of the state. Conring discussed the formal cause in the terms of the analysis set by French lawyer and political theorist Jean Bodin. Aristotle explained that the state, or the constitution (*politeia*), was an arrangement of offices. To this framework Bodin superadded an analysis of the powers of office based on Roman historical sources and the tradition of Roman law. He distinguished between the highest office, which he said had sovereignty and the lower offices or magistrates. The office with sovereignty possessed

⁵²² Conring, *Examen*, p. 52.

the powers of legislating, declaring war and making peace, taxation, appointing magistrates, and capital punishment.⁵²³

Though this scheme of classification was based on Roman practice and the subsequent interpretation of Roman law, it became the theoretical framework for interpreting the arrangement of political communities. Already Bodin had written that it is not always clear what person or body is sovereign in a given state. It therefore becomes a matter of empirical investigation and of examining a given office or institution against the checklist of the “marks of sovereignty” as Bodin named them. Conring made this sort of investigation part of a self-conscious political science. “Therefore if it is to be investigated who has the supreme power, it should be noted who has the power of legislating, who institutes taxes, etc...”⁵²⁴ It pertains then to the formal cause the tasks of classification and analysis, the understanding of which bodies and institutions have which powers and therefore whether a given regime is a monarchy, oligarchy, popular regime, or mixed regime.

The efficient cause includes the study of political actors and decision makers, especially the king in a monarchy. Conring understood the efficient cause to be a means to the end defined by the final cause and included under this heading not only the character and qualities of the ultimate decision makers themselves but the human, economic, and military resources that are used by the decision makers in an instrumental fashion for the achievement of their ends. Within this category, Conring emphasized the

⁵²³ Myron Piper Gilmore, *Argument from Roman Law in political thought, 1200-1600* (Cambridge, MA, 1941).

⁵²⁴ Conring, *Examen*, p. 53: *Iam itaque si investigandum, penes quem sit summa potestas, attendum est, quis habeat potestatem ferendi leges, quis vectigalia & tributa indicet, etc...*

role of the first minister, reflecting the new importance of the post in the first half of the seventeenth century, and once again taxation and the finances of the state.⁵²⁵ That some of these subjects are identified with more than one cause shows that Conring considered them in various aspects as they contributed to the explanation of the phenomena. The study of the taxable wealth of a nation as a material cause may explain the limits of possibility for that country, while as an efficient cause it may be the explanation for a particular policy. Magistrates are considered under the formal cause in terms of their office and powers and the relative strength of the offices against the other institutions of the state, while under the efficient cause the personality and qualities of the peoples who hold those offices, especially the first minister, are studied to account for particular policies.

Conring provided an informal example of formal explanation in his discussion of English politics. Though Charles II was ruling at the time he wrote his analysis of England, he thought that the parliament and thus the people were in control in England. England is a county constantly in flux, because it is a mixed regime, which is sometimes more monarchical and sometimes more democratic. Just as Aristotle thought that the Spartan constitution was long lasting because it was mixed, so too the English constitution is long lasting because the monarchy knows that to survive it needs to concede powers to the people. The exception to this rule is Cromwell, who, according to Conring, was hated by the people.⁵²⁶

⁵²⁵ Conring, *Examen*, pp. 53-4.

⁵²⁶ Conring, *Examen*, p. 204.

Conring thought that it was possible to make probable predictions about the behavior of states if one had a firm grasp of the present and past and a general understanding of political science. “This is the case, if we know universal political science and if we know which effects are accustomed to follow this or that cause.” Conring compared the type of prediction possible in political science to that in medicine. “So the prudent physician can predict health, whether a sick man will live or die , sometimes with certainty and sometimes with some probability, which stems from the knowledge of his art.”⁵²⁷

Conclusions: Conring and the new science

Before drawing any firm conclusions about the role of Conring’s political science in the history of science more generally, it is worth briefly considering Conring’s attitude towards the men whose works have collectively come to be known as the “new” science. These are the men who in large measure departed from the Aristotelian definition of science either in their empiricism, axiomatic approach, hostility to demonstration, or some combination of the three.

Conring’s attitude was ambivalent towards the work of these innovators. In general, he was hostile towards those who had left the Aristotelian fold. Thus he was strongly opposed to Descartes and the Cartesians whom he thought of as skeptics. Nevertheless, he respected the most exceptional of them. So, though he considered Francis Bacon to be a “pure” empiricist as mentioned earlier in this chapter, he

⁵²⁷ Conring, *Examen*, p. 55.

nevertheless praised him for the care he took in observation. Such consideration did not extend to Paracelsus, whose works Conring attacked in the most fierce terms.⁵²⁸

There are currently two views of Conring's attitude towards the axiomatic method in the human sciences. According to one view, Conring opposed the reduction of philosophy to mathematics and was skeptical of the new science approach to politics (and physics).⁵²⁹ On the other, Conring was encouraging of Pufendorf's work on the *Elementa jurisprudentiae universalis* and his presentation of jurisprudence in the geometric method (*more geometrico*).⁵³⁰ There is some evidence on both sides of the debate. On the one hand Conring did criticize Pufendorf's teacher, Erhard Weigel as a follower of Descartes and a chaser after novelty and follies. Such philosophizing led Conring to lament, "I wonder and at the same time grieve about what the old academy, the master of the old and solid philosophy, will become."⁵³¹ But Conring praised Joachim Jungius, a professor of medicine who is known for introducing the axiomatic method into physics. Conring's objection to the *mathematici* is that there is a tendency to arrange the material according to axioms without providing true demonstrations.

⁵²⁸ A comparison with the eclectic professor of Medicine at Wittemberg, Daniel Sennert (1572-1637), who as professor of Medicine at a university with a Lutheran basis was similar to Conring, but who approved of Paracelsus, suggests that the attitudes taken towards methodology and science were matters of personal scientific opinion and not institutional requirements. Sennert is briefly discussed in J. M. López-Piñero, "Galenism," in *Encyclopedia of the scientific revolution*, ed. Wilbur Applebaum (New York, 2000), s.v.

⁵²⁹ Dreitzel, "Conring," and Dreitzel, "Reception of Hobbes," p. 259.

⁵³⁰ T.J. Hochstrasser, *Natural law theories in the early Enlightenment* (Cambridge, 2000).

⁵³¹ Hermann Conring, 6, 521 (Brief an J. A. Bosius vom 31. 1. 1674): Weigelium audio Cartesianam novam philosophiam probare nec deesse, qui applaudant. Quod quidem in Academia vestra, veteris solidaeque philosophiae magistra, fieri miror et simul doleo. Aulas sectari novitates et amare ineptias nec novum est nec infrequens: itaque et in iis Weigelium haud displicere non est praeter solitum. Cited in Dreitzel, "Conring."

Of the men of the new science, Conring was the most supportive of the work of William Harvey, the discoverer of the circulation of the blood. Harvey's findings were disputed for some time after their publication and Conring was one of their leading defenders in Germany.⁵³² In methodological terms, Harvey was the closes of the great discoverers to the Aristotelian method, so perhaps it is little wonder that Conring felt comfortable defending him.⁵³³

Conring's political science resembled the natural science of Harvey broadly speaking in its balance between conceptual analyses and empiricism, but as we have seen the parallels between natural science and political science in Conring's work are based more on the "for the most part" generalizations which he saw in both natural and political phenomena and in his expanded use of material and efficient causes in his explanation of political phenomena. While Conring, like Harvey, was working within the Aristotelian tradition, their analysis of nature (and in the case of politics) emphasized different aspects of the Aristotelian methodological corpus than the traditional Aristotelian teleological analysis of nature, namely, "for the most part" generalizations and efficient and material causality. It would be wrong then to pose too strong an opposition between the new

⁵³² Edwin Rosner, "Hermann Conring als Arzt und als Gegner Hohenheims," in *Beiträge*, pp.87-120, p. 90.

⁵³³ Charles Schmitt has emphasized the affiliation between Harvey and Conring, but I disagree with his characterization of the relationship. Schmitt writes that Conring was an enthusiast for Harvey because of Harvey's "radically empirical approach to the study of the world of living organism." But as we have seen in the section on pure empiricism Conring would never think of being an enthusiast for radical empiricism. Charles B. Schmitt, "Aristotelianism in the Veneto and the Origins of Modern Science: Some Considerations on the Problem of Continuity" in *Aristotelismo Veneto e scienza moderna*, ed. Luigi Olivieri (Padua, 1983), vol. 1, pp. 104-123, p. 119.

science and Aristotelianism, since Conring, like Harvey, was both a new scientist and an Aristotelian.⁵³⁴

⁵³⁴ Horst Dreitzel also sees a convergence between politics and natural science in Conring's work, but he explains this in terms of a unified traditional Aristotelian approach to the world, rather than as an innovation within Aristotelianism. "His [Conring's] reality was always of a homogeneous, teleological structure, and his scientific criteria held for physics as well as for the political world." Where I picture Conring's work as a further move towards a closer identification of natural science and political science as compared to the scholastics, Dreitzel pictures him as one of the last in a unified tradition of human and natural science. "The crisis of Aristotelianism and its overcoming in the eclectic philosophy of the early Enlightenment arose for a large part through the consciousness that the criteria of 'science' could no longer be the same for the natural sciences and the human sciences." Dreitzel, "Conring und die politische Wissenschaft," p. 159.

Conclusion

The ending of historical narratives often have a feeling of inevitability about them. This is even more the case when the historical narrative ends somewhere more familiar, that is, closer to us, than it started. This narrative is no exception. Conring's political science ought to feel like progress from our point of view, since his work is closer to us than the teleological science of Albert the Great or the astrological science of Philip Melanchthon. Yet, just because Conring's political science resembles our empirical political science more closely, we should not conclude that it felt inevitable or obvious to him or his contemporaries.

The increasingly close connection to natural science appears to us an obvious development towards an improved political science. Yet we have seen how Pufendorf preferred another kind of political science, based on general statements which were not empirical. Other alternatives, such as a theological political science based on the teaching of the Bible have also been described in this period.⁵³⁵ Furthermore, there is internal evidence, from the work of Conring and others, that the new political science, given the worries about free will and the possibility of generalization, was a hard sell. When Conring appealed to students to study political science, it was on the basis of understanding current events and countries in the news not on a new systematic understanding of general rules of political behavior and institutions.

The new political science (accompanied by the older traditions of the formal study of constitutions) should also not appear too familiar to us, despite its affiliations with modern political science. It should be recalled that in the sixteenth century it was most

⁵³⁵ See Horst Dreitzel on Werdenhagen in *Arnisaeus*, pp. 78-9.

closely associated with astrology, while in the seventeenth, after decades of criticism of astrology, it was most closely linked to physiognomy.

This story then reminds us, as Lynn Thorndike and Frances Yates did before, that the modern world was not born in one fell swoop, but in the early modern period, was mixed in with the occult and the supernatural. As in the natural sciences, political science received much of its impetus from its alliances with what from our point of view are pseudo-sciences. As we have seen, its advocates learned to think through the causal structure of political change more thoroughly from its encounter with astrology and to generalize from its associations with physiognomy.

These conclusions naturally raise the question of how the political science of this late medieval and early modern age was connected to the political science of the age of Enlightenment. The story of this transition still needs to be told. The bright lights of the eighteenth century are clear enough—we know of Quetelet's average man and Condorcet's theorems, but these works are recognizably modern and separated from the sources considered here by a deep gulf. What lies between?

There have been several attempts to bridge this divide. Tim Hochstrasser has written about the transition between the early modern period and the early Enlightenment in the history of natural law. He found that the project of modern natural law—as have alluded to—had its roots in the discussions of the ideal of a demonstrative science and in particular in discussions of that method by Conring and others around the topic of Pufendorf's *Elementa*, a work of natural jurisprudence written in the style of geometric deduction.⁵³⁶ This though was still the science of principles, the old science of Albert

⁵³⁶ Hochstrasser, *Natural law theories*.

with the fact of its scientific quality trumpeted more loudly. The standard itself was the same.

From a political point of view Horst Dreitzel has argued that political science changed over this period in terms of its goals from realizing the good life understood in moral terms to promoting happiness. That is, he characterizes the change as one from utility to welfare. The theorists of the seventeenth century thought, as we have seen, that some regimes did in fact aim at happiness while others aimed at virtue, but political science as a science studied both. For Dreitzel, political science became a new science of promoting the welfare and utility of a state.⁵³⁷

What remains to be explained is the fare of the methodological issues and the kind of causal explanation which form the greater part of the concerns here. How was the modal logic of the seventeenth century related to the probability of the eighteenth? What kind of explanations of political change were given in the eighteenth and how were they related to those of the seventeenth? What happened to the concerns over free will and agency? To leave a work with more questions than one started is perhaps unsatisfying but the hope is that these are new questions, a rare breed in history, yielded by the consideration of political science as a science.

⁵³⁷ Horst Dreitzel, "Der Aristotelismus im 17. Jahrhundert."

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