

Durham E-Theses

Seneca's Natural Questions: Platonism, Physics, and Stoic Therapy in the First Century AD

BENISTON, RICHARD,JOHN

How to cite:

BENISTON, RICHARD,JOHN (2017) *Seneca's Natural Questions: Platonism, Physics, and Stoic Therapy in the First Century AD* , Durham theses, Durham University. Available at Durham E-Theses Online:
<http://etheses.dur.ac.uk/12361/>

Use policy

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a [link](#) is made to the metadata record in Durham E-Theses
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

Please consult the [full Durham E-Theses policy](#) for further details.

Academic Support Office, Durham University, University Office, Old Elvet, Durham DH1 3HP
e-mail: e-theses.admin@dur.ac.uk Tel: +44 0191 334 6107
<http://etheses.dur.ac.uk>

– Abstract –

Seneca's Natural Questions:

Platonism, Physics, and Stoic Therapy in the First Century AD

Richard Beniston

The combination of ethics and physics in Seneca's *Natural Questions* has frequently puzzled scholars. Although a number of studies have attempted to reconcile the work's ethical and physical parts, others maintain that there is no substantial connection between them. Both positions are problematic. The former glosses over the quite obvious ways in which these vivid accounts of vice are thematically at odds with the physics; the latter results in a bifurcation of the aims of the work. This study argues that the incongruous character of these passages plays an integral part in the work's overall goal: to defend the Stoic account of the 'the good'. This account was under attack from Platonist rivals. The Stoics argue that the good is grounded ultimately in the wellbeing of the cosmos as a whole; Platonists maintain that conceptualising the good as such is impossible because, as empiricists, the Stoics can only account for a subjective understanding of the good, grounded first and foremost in the wellbeing of the body. Seneca's engagement with this debate is indicated by the frequent allusions to Plato in the work, particularly the idea of 'separating soul from body'. Seneca suggests that a carefully structured study of nature can achieve this 'separation'. This process helps agents to overcome the subjective, body-focussed perspective that the Platonists associate with empiricism. Seneca thus demonstrates a therapeutic means through which an empiricist agent could come to conceive of the good as the Stoics envisage it. This same process of separation from one's body, however, also provides an ideal opportunity to reflect critically on the objects that we tend to misidentify as goods. It is here that the moralising passages prove useful. These arresting accounts of vice serve to jar us into critical reflection on where we ground our understanding of the good.

Seneca's *Natural Questions*:

Platonism, Physics and Stoic Therapy in the First Century AD

Richard Beniston

Ustinov College

A thesis submitted for the degree of Doctor of Philosophy

Department of Classics and Ancient History

Durham University

2017

Table of Contents

| | |
|--|-----|
| Introduction | 7 |
| <i>Seneca's Natural Questions: the rehabilitation of a neglected work</i> | 7 |
| <i>The Natural Questions: a work of philosophy</i> | 10 |
| <i>The Natural Questions and post-Hellenistic Stoicism</i> | 13 |
| – <i>Post-Hellenistic Stoicism: not just practical ethics</i> | 14 |
| – <i>Seneca, Platonism, and 'eclecticism'</i> | 21 |
| <i>Summary: a dialectical reading of the Natural Questions</i> | 25 |
| | |
| Chapter 1 – The Unusual Form of the Natural Questions: Interpretive Approaches | 28 |
| <i>Introduction: The unusual form of the Natural Questions</i> | 28 |
| <i>The Stoic tradition of physical writing</i> | 34 |
| <i>Literary convention</i> | 39 |
| <i>Philosophical approaches</i> | 42 |
| – <i>The Stoic framework</i> | 42 |
| – <i>The Platonist framework</i> | 43 |
| – <i>A Stoic-Platonist dialectical framework?</i> | 47 |
| | |
| Chapter 2 – The Dialectical Context: A Debate about Grounding the Good | 50 |
| <i>Introduction: Platonism and the 'crisis' of materialism</i> | 50 |
| <i>Empiricism and 'the good'</i> | 53 |
| <i>Seneca and the problem of the good</i> | 65 |
| <i>Separating soul from body</i> | 69 |
| | |
| Chapter 3 – Separating Soul from Body: The Aetiology of the Natural Questions | 73 |
| <i>Introduction</i> | 73 |
| <i>The structure of the aetiology: the example of book 3</i> | 74 |
| <i>From seen to unseen: Seneca's 'Platonising' methodology</i> | 80 |
| <i>Seneca's response to the Platonists</i> | 80 |
| <i>Appendix: The structure of the aetiology in the individual books of the Natural Questions</i> | 97 |
| | |
| Chapter 4 – Re-evaluating False Goods: The Moralising Passages of the Natural Questions | 115 |
| <i>Introduction</i> | 115 |
| <i>Characterising the moralising passages</i> | 116 |
| – <i>Differentiating the moralising passages</i> | 116 |
| – <i>Thematic and rhetorical discontinuity</i> | 119 |
| – <i>'False goods' and the portrait of empiricism in the moralising passages</i> | 122 |
| – <i>The positioning of the moralising passages in the work</i> | 128 |
| <i>The therapeutic role of the moralising passages</i> | 132 |
| <i>'Paradoxical' natural phenomena</i> | 136 |
| <i>Conclusion</i> | 139 |
| | |
| Chapter 5 – Studying Physics in the Hellenistic Stoa | 141 |
| <i>Introduction</i> | 141 |
| <i>Stoic physics and Stoic ethics: the modern debate</i> | 142 |

| | |
|--|-----|
| <i>Why study physics...at all?</i> | 146 |
| <i>Physics as therapy</i> | 154 |
| <i>Physics and ethics in the Natural Questions (revisited)</i> | 159 |
| <i>Summary and Conclusion</i> | 165 |
| <i>Summary</i> | 165 |
| <i>Seneca's innovative conservatism</i> | 167 |
| <i>Bibliography</i> | 173 |

The copyright of this thesis rests with the author. No quotation from it should be published without the author's prior written consent and information derived from it should be acknowledged.

Acknowledgements

Thanks go first and foremost to George Boys-Stones, whose advice and guidance throughout my extended time at Durham has been outstanding. Without his patient encouragement and support, this thesis could not have been written. It has been an honour to work with him.

Thanks also to my second supervisor, Phillip Horky, for his comments on portions of this thesis, and for his unfailing willingness to take an interest in my work.

I am deeply indebted to all who attended meetings of the Ancient Philosophy Reading Group. These vibrant weekly gatherings of Durham's Ancient Philosophy community have brought the subject to life, and have been an invaluable source of discussion with like-minded colleagues. I shall miss them (and their subsequent pub trips) a great deal.

A big thank you to Nicki Slater, who kindly offered to proof-read this thesis, and whose diligence and attention to detail in this task went above and beyond the call of duty.

A debt of gratitude is also owed to all those who have allowed me to present my work over the past few years – the IDEA Centre in Leeds, the School of History, Classics and Archaeology in Edinburgh, not to mention the Department of Classics and Ancient History in Durham. Both the opportunity to speak, and the comments of those who attended, have been extremely useful and very much appreciated.

I am sincerely grateful to the Art and Humanities Research Council for funding my time at Durham, without which this project would not have been possible.

Special thanks, finally, to my family, my friends and, most of all, to Verity, whose patience, love, and support throughout the doctorate have been nothing short of miraculous.

1. Seneca's *Natural Questions*: the rehabilitation of a neglected work

Seneca's *Natural Questions* "has never been widely read or admired", or so it has frequently been said.¹ In fact, though, the text did not always suffer from such disregard. From the Middle Ages through even into the 19th century it enjoyed considerable standing as a scientific work, even if consistently outshone by the work of Aristotle and Pliny.² It was really only the late 19th and early 20th centuries that saw the work fall into serious disrepute. Scholarship continued, to be sure, but mainly from the point of view of *Quellenforschung*,³ or else focussing on the knotty question of the work's original book order (an issue which, more recently, may finally have been resolved).⁴ Little attempt was made to understand the work in its own right. Few, indeed, seem to have thought it worth bothering: the work was widely seen to be lacking a coherent sense of structure or purpose, philosophical understanding, and even seriousness of intent.⁵

In recent decades, though, there has been something of a renaissance of interest in the *Natural Questions*, with scholars returning to the text with a much more sympathetic eye. This trend began with a thesis (1960) and subsequent article (1964) by Stahl, followed by a monograph by Waiblinger (1977), and then a commentary on book 2 by Hine (1981). At the end of the 1980s there arrived another monograph, by Gross (1989), along with a lengthy and

¹ Morford (2002), 9.

² See Waiblinger (1977, 1-3) for a useful history of the early reception of the *Natural Questions*.

³ For a long time it was believed that Seneca drew on just one source for the *Natural Questions*, frequent candidates being Posidonius, Asclepiodotus, or Papirius Fabianus. Today, most scholars accept that Seneca drew on a variety of sources. See especially Hall (1977); Setaioli (1988) 375-452; Gross (1989), *passim*.

⁴ Two main book orderings have come down to us in the manuscripts, with the so-called *Quantum* order (so named because of the first word in the manuscript) running 1 – 2 – 3 – 4a – 4b – 5 – 6 – 7, and the other (the so-called *Grandinem* ordering) as 4b – 5 – 6 – 7 – 1 – 2 – 3 – 4a. Both orderings, however, result in internal inconsistencies (for discussion of which, see Hine (1981), 4-19). Beginning in the early 19th century, therefore, numerous attempts have been made to reorder the text coherently – as many as eleven, according to one count (Grecke (1895), 110). More recently, however, the work of Codoñer (1979) and Hine (1981) may have settled the question once and for all. Working independently, both scholars came to the conclusion that the text is best made sense of by arranging the books in what is now known as the *Non praeterit* ordering: 3 – 4a – 4b – 5 – 6 – 7 – 1 – 2. While not represented in the manuscript tradition, this ordering makes best sense of Seneca's inter-book references, and a plausible explanation can be given about how the manuscripts degraded from this order into the two divergent manuscript traditions. There has been a widespread uptake of this ordering – with the two most recent translations even printing the books in this order. The arguments of Hine and Codoñer are undeniably convincing, and so for the duration of this study I will assume this ordering to be correct. At the same time, no element of my argument will depend crucially on this being so.

⁵ Lacking structure: Schultess (1888); Pohlenz (1948), 33. Lacking understanding: Reinhardt (1921). Seriousness of intent: Gercke (1895), 312, and especially Münscher (1922), 51ff; 140. For good summaries of early scholarship on the *Natural Questions* see Gross (1989), esp. 2-5; Maurach (1965), 357-9.

influential article by Codoñer (1989). Across the same period were a number of shorter though nevertheless important articles,⁶ as well as much crucial textual work.⁷

The turn of the millennium has seen a spate of further major studies, including monographs by Berno (2003), Gauly (2004) and Williams (2012), as well as a detailed thesis by Limburg (2007). There have, in addition, been two recent translations – into English by Hine (2010a), and Spanish (with substantial notes) by Bravo Diaz (2013). Articles focussing on the work have also continued apace.⁸ Altogether, this seems to indicate a level of sustained interest in the text – although, as Inwood first pointed out in 1998, Anglophone scholarship on the work has generally lagged far behind its European counterpart.⁹ Nearly two decades on, this situation remains largely unchanged.¹⁰

In this re-flourishing of interest the chief question that has occupied scholars has been the unusual *form* of the work – namely, the eccentric way in which Seneca articulates the physical subject-matter with moralising outbursts.¹¹ These passages, which occur variously as prefaces, digressions and epilogues, throw up a number of interpretive difficulties, most challenging of which is the fact that their content seems to have little to do with the aetiological investigations in which they are embedded. It is this very feature, in fact, that has so frequently drawn criticism to the work. Accordingly, in studies seeking remedy the work's

⁶ Important dedicated studies from this period include Maurach (1965); Strohm (1977), (1985); Grilli (1987) Gigon (1991), with an extended treatment of the *Natural Questions* in Citroni Marchetti (1991), 116-173. Note that in this brief review I have generally excluded works that approach the *Natural Questions* from the point of view of ancient *science* (Gross (1989) and Maurach (1965) being important exceptions). The reason for this is that, strictly speaking, the work is not one of ancient science, but rather a work of philosophical physics (as pointed out by Limburg (2007), 72ff.) The primary reason for thinking so is that the work conforms to Seneca's own distinction between science and physics in *Ep.* 88, in which the latter, unlike the former, is said to investigate *causes*. From the very beginning of the work, Seneca makes clear that he is interested in discovering causes: *mundum circuire constitui et causas secretaque eius eruere* (*NQ* 3 pref. 1). Furthermore, the authors whom Seneca draws on throughout the work are almost exclusively philosophers, and thus it was clearly in the tradition of natural *philosophy* that Seneca intended to locate the work. For extensive bibliography on all aspects of the *Natural Questions*, including ancient science, see Hine's (2009-2010b) comprehensive bibliography, running from 1960-2006.

⁷ Especially important among which have been Codoñer (1979); Vottero (1989); and Hine (1996).

⁸ Including Chaumartin (1996); Leitão (1998); Graver (1999) (a response to Inwood's (2005a) contribution); Scott (1999); Parroni (2000); Kullmann (2005). For comprehensive bibliography in the *Natural Questions* up to 2006, see Hine (2009-10b). After this date see Limburg (2008); Williams has, since his monograph (2012), published a number of articles, e.g. (2013); (2014); (2016). Berno has also published since her monograph: Berno (2015). See also relevant chapter in the recent *Brills Companion to Seneca*, especially Gauly (2013); Setaioli (2013a) (from which also comes Williams (2013)) with extensive bibliography on Seneca in general. Another thesis which deals extensively with the *Natural Questions* is Jones (2013).

⁹ Inwood (2005a), 160 n.12.

¹⁰ Indeed, omitting Limburg's thesis, Williams's monograph remains the only published English-language monograph on the *Natural Questions*.

¹¹ Codoñer (1989) cautions against lumping all of the non-physical portions of the *Natural Questions* together without further qualification. I can agree with this to some extent. As we shall see in Chapter 4, the group of passages which deal with ethical themes can (and I think should) be further differentiated.

poor reputation, finding a way of justifying the presence of these passages has generally been a central concern.

In broad terms, the strategies adopted fall into two camps. On the one hand, some scholars broadly accept the lack of integration, and assign the moralising passages a purpose essentially distinct from that of the aetiology – claiming, for instance, that they serve as light relief from the technical portions of the work,¹² or that they represent a different mode of discourse with a separate though perhaps complementary set of goals.¹³ Those in the opposing camp, meanwhile, have striven to show that the passages are, despite appearances, carefully integrated with the physical themes. This is generally achieved through the identification of various lexical, artistic or thematic devices within the aetiology that, it is claimed, subsequently recur within the moralising passages.¹⁴

It is to this same debate that the present study hopes to contribute. Thinking in the binary terms just employed, my own interpretation sits somewhere between the two camps. On the one hand, I am sceptical of what I see as the tendency of the integrating interpretations to gloss over the ways in which the moralising passages are not particularly well-integrated.¹⁵ The proposed connecting devices, I shall argue, are often highly subjective, open to contradictory interpretations, and have, it should be borne in mind, completely eluded the notice of generations of scholars. On the other hand, the ‘dis-integrating’ approaches appear to me as, essentially, an admission of defeat. To regard these passages as mere entertainment seems to trivialise substantial portions of text, while the allocation of a distinct set of ends to these sections results in an unacceptable bifurcation of work’s aims. Indeed, this result seems little different from the traditional appraisal of the *Natural Questions* as lacking a sense of coherence. I shall argue instead that the best way to resolve the difficulty is, on the one hand, to accept at face value that the moralising passages are not particularly well-integrated, while also maintaining that this very feature is an essential part of their function – a function, moreover, that closely complements that of the aetiology.

Reaching this conclusion, however, will not be entirely straightforward. While one might hope that something like this were the case, it is certainly not self-evident how the two

¹² A theory championed by Gross (1989), and partly accepted by Limburg (2007)

¹³ E.g. Limburg (2007); Codoñer (1989). Gauly (2004) could also be placed in this camp since, first, he sees Seneca as trying to combine Greek (physical) and Roman (moral) modes of discourse (cf. Gigon (1991)), but also because he sees moralising passages as, in part, a kind of concession to readers who are not able to benefit fully from the physical portions of the work. More on this in Chapter 1.

¹⁴ This is the approach of Stahl (1960); (1964); Waiblinger (1977); Scott (1999); Berno (2003); Williams (2012) – although, on Williams’ interpretation, more below.

¹⁵ A point also made by Limburg (2007).

aspects of the work can work together in this way. Instead, it will first require considerable reflection on the underlying concerns that, I shall argue, motivate and shape the work as we find it. At the core of this argument is the assumption that the *Natural Questions* is fundamentally a *philosophical* text, and that it is therefore to these concerns that we must look to in order to understand the work, including its unusual form.

2. The Natural Questions: a work of philosophy

Indeed, despite the revival of interest in the *Natural Questions* in recent years, it is notable that the text has still received relatively little attention as, in the first instance, a work of philosophy. Although the work has certainly not escaped philosophical analysis entirely, it remains the case that few of the major, ‘holistic’ studies of the text have approached it from this perspective.¹⁶ While none actively deny, or wholly ignore, the work’s philosophical character, most have nevertheless approached it as first and foremost a literary construction.

The most recent scholar to do so is Williams (2012), on whose study I would like to pause briefly for two reasons. On the one hand, this is because Williams’ book has, I believe, made an important contribution to our understanding of the *Natural Questions*, and some of my core claims about the work will turn out to be in close harmony with some of his. At the same time, Williams’ work (which he himself describes as “stressing to the last the *artistic* impulse that drives and shapes Seneca’s entire project” (his emphasis))¹⁷ also provides an excellent case study of the literary approach to the text that has dominated scholarship on the *Natural Questions*.

Williams’ central contention is that Seneca’s goal in the *Natural Questions* is to foster what he calls “the cosmic viewpoint”. This is achieved, Williams argues, through Seneca’s careful choice of physical theories that, individually and cumulatively, through their artistic tendencies, serve to draw the reader’s mind upwards into the cosmos, and to present a vision of the world as an integrated, unified system. Williams suggests, in fact, that the theories are chosen *solely* on the basis of their artistic qualities: “Whatever the merits or plausibility of individual theories, each in its own way projects an integrating vision of nature’s

¹⁶ A notable exception to which is Gauly (2004), to which might be added the work of Stahl (1960); (1964) – although it should be said that Stahl’s interpretation has a very prominent literary component, even if framed in philosophical terms. Of the major shorter studies – which is to say, those that purport to offer something like a holistic interpretation of the text – only Donini (1979), ch. 3, Codoñer (1989) and Scott (1999) put philosophical considerations at the forefront. Although Inwood’s important and lengthy (2005a) article on the *Natural Questions* pays close attention to the work’s philosophical concerns, I omit it because Inwood himself purports only to give a “selective analysis” of the work, and thus, for one thing, omits to discuss the moralising passages in any detail.

¹⁷ Williams (2012), 16.

workings”.¹⁸ On the matter of the moralising passages, Williams argues that, whereas the purpose of the aetiology is to extend our minds outwards towards the cosmos, these passages illustrate the polar opposite. In the moralising passages we find a “community of deviants” who, far from lifting their minds to the heavens, are completely obsessed with parochial, “terrestrial” concerns. For Williams, the lurid anecdotes of vice that we find in these passages provide an incentive to pursue the cosmic viewpoint, while, at the same time, exerting a darkly attractive counterforce of their own, setting the work in a “unifying tension” with itself.¹⁹

Williams’ work has, as I say, made enormous progress in elucidating some of the core themes of the work. In particular, his contention that the aetiology aims somehow to expand the viewpoint of the reader, and that the agents in the moralising passages represent the opposite pole of this, are ideas that I too see as central to Seneca’s argument. At the same time, Williams’ choice to focus almost exclusively on the literary aspects of the text seems to be methodologically problematic when dealing with a philosophical text such as the *Natural Questions*.

There is, of course, something of a tradition of reading Seneca’s work as principally a literary enterprise. This is in part due to the highly literary-rhetorical character of his work, though no doubt also down to the poor reputation as a philosopher that Seneca has often endured. There are, however, at least two good reasons why we should place philosophy at the forefront of our reading of Seneca’s work, the *Natural Questions* included. The first is that scholarship over the past few decades – spearheaded by Brad Inwood – has led to a widespread reappraisal of Seneca’s philosophical credentials. This only makes the relative philosophical neglect of the *Natural Questions* all the more surprising, and by itself warrants further philosophical scrutiny of this text. Second, though, and more important from the methodological perspective, is the simple fact that Seneca styles himself as a philosopher, and frames his prose²⁰ works, including the *Natural Questions*, quite unmistakably *as* works of philosophy. Unless we are to dismiss this as mere posturing, it thus seems essential that we start out from the assumption that his work should be read as such.

This is not to say, of course, that artistic considerations are not *also* important. It need hardly be said that, in ancient philosophy quite generally, the artistic and philosophical aspects of a work are often closely intertwined, and this is undoubtedly true of Seneca’s

¹⁸ *Op. cit.* 18-19.

¹⁹ *Op. cit.* 12; 88.

²⁰ The dramas, of course, are a different matter. While some do indeed read the dramas as works of philosophy, for the duration of this thesis my focus will be exclusively on his prose works.

work.²¹ At the same time, there is something strange about the idea that we should take artistic considerations as the *primary* organising factor in a self-consciously philosophical work such as the *Natural Questions*. While, by way of comparison, no one would deny the prominent artistic component of Plato's dialogues, surely none would argue that we should read them as *primarily* artistic creations. While the artistic elements may serve to convey the argument, and may, indeed, have a philosophically-grounded role in their own right, we must surely assume that the art is led by the philosophy, and not the other way around.

The problems that can arise if we invert this methodological hierarchy are visible in various aspects of Williams' argument. One of Williams' contentions, if we recall, is that 'cosmic consciousness' is fostered through the artistic tendencies of the theories explored in the aetiology. Indeed, as we saw, Williams' suggests that these theories are chosen *solely* on the basis of artistic merit. While in a more straightforwardly literary work such an idea might be unproblematic, when we factor in the philosophical dimension of the *Natural Questions* the claim becomes more difficult to justify. In particular, the reduction of physics to a mere artistic instrument in this way seems difficult to reconcile with the idea of Stoic physics as a theoretically significant branch of inquiry – something that Seneca seems clearly to have believed.²²

Similarly problematic is Williams' claim that the protagonists of the moralising passages exert a darkly attractive counterforce in the text. While, on an artistic level, this suggestion may be perfectly reasonable (if highly subjective), it seems doubtful that this is something that Seneca would have wanted to emphasise – or even, for that matter, to leave open as a possibility. For, on the Stoic understanding, if we as agents *do* find something attractive about vice, it is because we have made a terrible mistake about how to live our lives, and is thus something that ought urgently to be addressed. Therefore, unless Seneca was willing to risk doing serious harm to his readers, it seems unlikely that any alluring quality that we find in the moralising passages was an intentional part of the work's design.²³

A further problem concerns Williams' characterisation of the cosmic viewpoint itself – the very end at which he takes the work to be aimed. Williams also describes this end

²¹ For one recent exploration of the significance of literary form in Seneca's philosophical project, see Gunderson (2015). See also Bartsch (2009); Armisen-Marchetti (2015), (1989); Inwood (2007c); Setaioli (2000); Traina (1995).

²² E.g. *NQ* 1 pref. 1-1; *Ep.* 89.1-17. More on Seneca's interest in physics below.

²³ Of course, as noted above, Williams *also* argues that the moralising passages are intended to serve as an incentive to pursue the 'cosmic viewpoint', as fostered by the aetiology. Again, though, while this apparent contradiction might be less problematic on an artistic reading, a philosopher might be more concerned about the potential of these passages to produce both effects at once – or, perhaps, different effects on different readers.

variously as “cosmic consciousness”, “seeing the all”, or the “totalizing worldview”; though despite these various descriptions it is difficult to pin down precisely what Williams takes this goal to consist of, if and when it is achieved. This element of fuzziness is perhaps best captured in Williams’ introduction, where he describes Seneca’s study of nature as serving to “free the mind from restrictions and involvements of this life, liberating it to observe, and luxuriate in, the undifferentiated cosmic wholeness that is so distant from the fragmentations and disruptions of our everyday existence”.²⁴ While one can perhaps form an impression of what Williams is getting at, it is difficult to deny that there is a degree of imprecision here. What, philosophically speaking, does it mean to gain freedom from the restrictions of everyday life? Does achieving this mean that we as agents cease to care about everyday concerns completely? What, again, does it mean to “luxuriate in...undifferentiated cosmic wholeness”? What is the ethical significance of this experience? Where does it sit within existing Stoic ethical theory – is it a new ethical *τέλος*, or is it reconcilable with existing Stoic theoretical structures? Considering the centrality of the cosmic viewpoint in Williams’ argument, these seem like pressing questions – especially since Williams himself maintains that Seneca is broadly working within a Stoic framework.²⁵ However, the only way we are going to be able to answer them, I think, is by paying far closer attention to the philosophical theory that underpins the ideas in the text, including what Williams calls the ‘cosmic viewpoint’.

What all of this hopefully shows is that we must, at the very least, *also* pay close attention to the philosophical dimension of a work such as the *Natural Questions*. Doing so will not only lead us to an interpretation that is both artistically *and* philosophically consistent, but may in turn actually lead us to a better understanding of what is going on in the work in artistic terms *as well*. Indeed, rather than entirely rejecting the findings of Williams and others who have taken the artistic approach to the text, I hope that this thesis will, in part, serve to give a firmer philosophical footing to some of these ideas.

3. *The Natural Questions and post-Hellenistic Stoicism*

Another central claim of this thesis is that the *Natural Questions* is best understood by locating it within the intellectual context in which it was written. By this I do not primarily mean that the work is best seen as a product of *Roman* intellectual culture – as true as this

²⁴ *Op. cit.*, 3.

²⁵ E.g. *op. cit.*, 2-3.

necessarily is, and it is a facet of the work that has been thoroughly explored already.²⁶ Instead (again considering the philosophical nature of the text) the context that I believe to be crucial is that of contemporary, post-Hellenistic philosophy. The philosophical currents of this period, I shall argue, turn out to be a crucial backdrop to Seneca's thought in this work.

In order to begin to justify this claim, however, it will first be necessary to address, here at the start, what I take to be some long-standing misconceptions about post-Hellenistic Stoicism. Although this will involve us briefly looking slightly beyond the scope of the present study, it will serve to set the scene for some of the core claims of this thesis.

3.1. *Post-Hellenistic Stoicism: not just practical ethics*

By far and away the most enduring myth about post-Hellenistic Stoicism is that it is concerned pretty much exclusively with so-called 'practical ethics'.²⁷ Following the closure of the Athenian schools,²⁸ on this narrative, philosophical activity was relocated to Rome. Finding themselves in this new cultural environment, characterised by an intense sense of pragmatism, the Stoics were forced to adapt their philosophy to the tastes of their new audience. The result was a refocusing of philosophical efforts on the construction of a philosophy that better served the needs of practical life.²⁹ Another, or perhaps parallel, version of the narrative has it that Stoicism became more interested in the "tyro" – the person just making moral progress – and that this resulted in a certain softening in the Stoics' theoretical interests.³⁰ Whatever the reason, it is maintained that serious interest in the more esoteric theoretical questions that had occupied previous generations of philosophers fell, in effect, by the wayside.³¹ The tripartite Stoic curriculum of logic, ethics and physics, put another way, was reduced to just one part: ethics – though a form of ethics focussed not on theory, but practice. In this narrative, Seneca is frequently taken to be one of the key protagonists.

²⁶ Williams (2012), Gauly (2004) and Berno (2003), for instance, all put heavy emphasis on the Roman character of the work.

²⁷ E.g. Morford (2002, 227): "the obsessive concern...with philosophy as a practical guide to daily life".

²⁸ Athens was sacked by Sulla in 86 BC, leading many philosophers to flee, and to the closure of the Academy and the Lyceum. So ended forever the supremacy of Athens as the centre of philosophy – although by no means was this the end of serious philosophical activity in this period. Philosophical schools sprang up around the Mediterranean region, of which Rome was just one (perhaps relatively minor) example.

²⁹ See, e.g. Morford (2002), 4. Admittedly Morford, like others, does not claim that the study of physics was neglected *completely*; but it is then telling that physics features very little in his narrative of Roman philosophy. More on this below.

³⁰ Arnold (1911), 102; Thorsteinsson (2010), 15; Bryan (2013), 136.

³¹ Lapidus (1989, 1371) declares that Stoics of this period were "patently uninterested" in cosmology – although he maintains that this does not necessarily mean that Stoics of this period did not *know* about Stoic physics – see n. 56, below.

It is true, especially in more recent scholarship, that those who repeat these claims frequently add the caveat that, of course, there was *some* continuing interest in physics – a qualification that often seems motivated precisely by the somewhat troubling existence of the *Natural Questions*. But then it is usually added immediately that such interests were in the background, or else were subordinated to ethical concerns.³² The *Natural Questions*, indeed, is integrated into the narrative in precisely this way – with the claim, for instance, that it has a “patently ethical agenda”, whatever its overt subject-matter.³³

This, however, looks suspiciously like circular reasoning. It assumes that physics must have been of secondary interest to philosophers like Seneca simply because post-Hellenistic Stoicism is believed to have been dominated by practical ethics. However, although the *Natural Questions* obviously contains ethical themes, it is, as we have seen, far from clear what the relationship between the ethical and physical portions of the text actually is. There is certainly no *prima facie* reason why we should simply *reduce* the physics to ethics; and yet this is precisely what many scholars try to do, seemingly for little better reason than this is what best fits the accepted historical narrative. Another way of looking at the *Natural Questions*, however, is as a glaring *counterexample* to the dominant narrative of this period. In fact, though, it turns out to be just one of many.

For one thing, the *Natural Questions* is not even the only work of physics written by *Seneca*. He seems also to have written on the nature of fish, and stone, frequently said to have come from works called *De piscium natura* and *De lapidum natura*.³⁴ Another work, *De*

³² Thorsteinsson, *op. cit.* Morford (2002, 176) refrains from saying this in the case of physics, but does say so for logic, at least in Seneca’s case. However, Seneca’s advice to Lucilius not to get bogged down in logic need not imply its *subordination*. He surely means that we should not mistake proficiency in logic for being a good person. It seems clear that Seneca accords all three parts of philosophy equal weight from his image of philosophy as unified whole in *Ep.* 89. Moreover Barnes (1996), whom Morford actually cites, argues convincingly that logic was all the rage among young intellectuals in this period – again counting against the perception of this period as dominated by practical ethics.

³³ Bryan (2013), 136. Bryan does at least note that the apparent predominance of practical ethics may be influenced by the nature of the surviving evidence – although, as I outline below, a great deal of non-ethical Stoic evidence from this period has in fact survived. It is more our *selective use* of this evidence that has skewed the picture.

³⁴ Although, while it is seldom noted by scholars who reproduce them, the titles themselves are pure conjecture, proposed first by Haase (1853) on the basis that Seneca is named as a source by Pliny in the books of the *NH* that deal with these topics. See *NH* 1.9 and 1.36, on fish and stones respectively. In the former case, we do find a corresponding reference to Seneca: his observation of the remarkable longevity of the fish in Caesar’s fish-pond (*NH* 9.126). In the latter case, however, no corresponding reference to Seneca is explicitly made. Going on the established rule that Pliny uses sources in the order in which he lists them in his index, we would expect Seneca’s contribution to come between *NH* 36.125-174 – though it is impossible to say what in this long passage comes from Seneca. Nevertheless, the references at least attest to Seneca writing *about* these topics; and the fact that the observations do not occur in any other of Seneca’s surviving works does seem to attest to lost writing (of unknown extent) on these topics. See Lausberg (1989) 1930-2; Vottero (1998a) 87-92; Ferrero (2014), 107-112.

forma mundi, is named explicitly by Cassiodorus,³⁵ while two (apparently) geographical works, one on India, the other on Egypt, are referred to by Servius as *De situ Indiae* and *De situ et sacris Aegyptiorum*.³⁶ Seneca himself, meanwhile, refers to a work on earthquakes that he wrote in his youth in book 6 of the *Natural Questions*.³⁷

Seneca, however, is far from being exceptional.³⁸ In the first century BC, at the beginning of our period, Antipater of Tyre (a friend of Cato, and possibly also Cicero³⁹) wrote an *On the cosmos*. In the same period, Philoxenus (another associate of Cicero) may have written a summary of Panaetius' *On providence*, and at least had access to one.⁴⁰ Posidonius' pupil Asclepiodotus – sometimes conjectured as Seneca's sole source in the *Natural Questions*, but certainly one of them⁴¹ – had something to say about the causes of earthquakes, and of lightning, possibly within a larger work itself called the *Natural Questions*.⁴² Geminus, while not definitely a Stoic himself, wrote an (extant) introduction to Aratus' *Phaenomena* (a poem of intense Stoic interest,⁴³ often seen to be heavily influenced by Stoicism itself) as well as a summary of Posidonius' *Meteorologica*, of which only a short (but important) fragment survives.⁴⁴ Even if not a Stoic himself, though, the considerable attention he paid to Stoic physics nevertheless suggests a continued, wider interest in the

³⁵ Cassiodorus *Inst.* 2.6.4. See Lausberg (1989) 1928-9; Vottero (1998a) 33-5; Ferrero (2014), 107-112.

³⁶ Servius *Aen.* 9.30, 6.154; Pliny *NH* 1.6; 6.60. See Lausberg (1989) 1932-7; Vottero (1998a) 19-22; Ferrero (2014).

³⁷ *NQ* 6.4.2.

³⁸ The argument for continued interest in physics and cosmology was already made by Todd (1989), though seldom heeded. For an excellent summary of the continuing theoretical interest across all schools in the post-Hellenistic period, see Frede (1999). Trapp (2007, 10-13) also argues against the narrative of a radical restriction to ethics in this period. However, it is interesting to note that Trapp pays very little attention to physics in the rest of his book. Moreover, he seems unaware that independent physical treatises continued to be written by Stoics in this period: he cites only the *Natural Questions* as an example of Stoic physical writing, and seems to suggest that the only other place we find physics is integrated within the work of Stoic 'ethicists', who treat physics as "a fixed backdrop" against which they "concentrated their imaginative and exegetical resources on the ethical payoff" (2007, 12).

³⁹ Cicero mentions his recent death at *De officiis* 2.86.

⁴⁰ Cicero *Ep. ad Att.* 13.8. It is somewhat uncertain whether this work was actually written by Philoxenus himself. It may simply be that Cicero was asking for Philoxenus to send the work, since a slave in charge of Quintus Cicero's library went by the same name – see Goulet *DPh* (= *Dictionnaire des philosophes antiques*) Va, P167. Even so, the reference to the work by Cicero as "Παναητίου περὶ Προνοίας" (rather than, for instance, "Panaetii 'Περὶ Προνοίας'") does suggest that it is a derivative version of Panaetius work that is in question here, and the existence of such a work around this time is significant regardless of its precise author.

⁴¹ Mentioned at *NQ* 5.15.1; 6.17.3; 6.22.2; 2.26.6

⁴² A title conjectured on the basis of *NQ* 6.17.3, although the reading of this passage has been questioned by Hine (1981), 24-9 and Vottero (1989), 506.

⁴³ The popularity of this poem among Stoics is attested to by, for example, the commentaries by Boethius of Sidon (in four books, 2nd BC) and Achilles Tatius (3rd AD), and a translation by Avienus (4th AD) – on the latter two, more below. The Stoic leanings of the poet himself was first noted, as far as I can tell, by Martin (1956, 3), who noted striking correspondences with the prelude of the poem and Cleanthes' *Hymn to Zeus*, and also the emphasis on fate and divination throughout. It should be noted, as well, that Aratus came from the same town as Chrysippus: Soli. The Stoic influence on the poem is now widely accepted. See, e.g. Kidd's introduction to his translation (1998).

⁴⁴ EK T42.

topic in intellectual circles. Much the same can be said for Arius Didymus, who has again sometimes been seen as a Stoic in his own right.⁴⁵ Whether or not this is true, he was certainly interested enough (and perceived enough popular interest) in Stoic physics to preserve its theories in his doxographical work.

Moving into the first century AD, there are a number of authors for whose work Stoic physics is directly relevant. The first of these is Strabo, who repeatedly identifies as a Stoic, and whose colossal surviving *Geography* should perhaps be considered a work of Stoic physics in its own right.⁴⁶ Seneca, meanwhile, tells us that his teacher Attalus wrote a work classifying types of lightning for the purposes of divination.⁴⁷ The Egyptian Chaeremon (who, as a tutor of Nero, may well have been known to Seneca) wrote a work *On comets*,⁴⁸ as well as several etymological/allegorical works.

This latter genre seems to have become quite popular among Stoics at this time, which is significant when we consider that these works frequently drew on Stoic physics as a basis for allegorical interpretation. We see this in the (extant) *Epidrome* of Annaeus Cornutus (another potential associate of Seneca), as well as in the (also extant) *Homeric Questions* by the commentator Heraclitus – another figure who has not unreasonably been read as a Stoic in his own regard.⁴⁹ There is some evidence, in fact, that Chaeremon might have adopted the same strategy in his own allegorical works.⁵⁰

⁴⁵ The identification of various figures with the individual believed to be called Arius Didymus remains somewhat controversial. Diogenes Laertius lists a Stoic called Arius between Antipater and Cornutus in his list of Stoics, which fits chronologically with the Arius who was a court philosopher to Augustus. For a good summary of this issue, see Sharples (2010), 21-2. Against the traditional identification of Arius as a Stoic, see Hatzimichali (2017). Nevertheless, the very fact that *anyone*, Stoic or not, was recording Stoic views on physics in this period implies some level of continued interest, at the very least. On the remaining fragments of this part of the doxography, see Runia (2009).

⁴⁶ Identifies with the Stoic school at e.g. 1.2.3; 1.2.13; 1.2.34; 2.3.8; 16.3.27. Roseman (2005) regards the *Geography* as a work of science rather than physics, but suggests that Strabo carries out his scientific work within a Stoic methodological framework. Interestingly, a similar argument has recently been made for Pliny the Elder, by Paparazzo (2011). Pliny has, indeed, sometimes been considered a Stoic in his own right, in part down to the extremely Stoic-sounding outline of the cosmos he gives in book 2 of the *NH*. Unlike Strabo, though, Pliny never actually identifies as a Stoic (or, for that matter, as a philosopher of any kind) and there is probably too little evidence to be sure about his philosophical sympathies or allegiances (if any).

⁴⁷ *NQ* 2.48.2; 50.1.

⁴⁸ Fr. 3 Van der Horst.

⁴⁹ Seen as a Stoic in an influential article by De Lacey (1948), a view which was rehabilitated in the doctoral dissertation of Thompson (1973). Long (1992), however, rejects this reading. He does so because he does not think that type of allegorising that Heraclitus does was that practiced by 'orthodox' Stoics. Namely, whereas Heraclitus considers Homer to have written in allegory, the Stoics thought the allegorical aspect of myth was not by design of the poet. As Boys-Stones (2003) shows, however, both methods of allegorisation were theorised by Stoics – especially, moreover, in this later period.

⁵⁰ See, for example, Fr. 17d Van der Horst.

Cornutus, for his part, also wrote a work called *On properties*,⁵¹ as well as a polemic against Aristotle's *Categories* and a *Reply to Athenodorus* – all of which, and certainly the first, were likely concerned with metaphysical matters.⁵²

In the same period we have the lengthy *Astronomica* poem, a work awash with Stoic cosmology,⁵³ and whose author, Manilius, has sometimes been seen as a fully-fledged Stoic.⁵⁴ While some have questioned this,⁵⁵ his work nevertheless shows that Stoic physics was still seen as a theoretically relevant way of studying the cosmos.⁵⁶ For the same reason it is also worth mentioning two other works that can probably be dated to this period. The first is the pseudo-Aristotelian *On the Cosmos*, a work that seems to blend elements of Stoic and Peripatetic physics. The second is the anonymous *Aetna* poem – a work of particular note since it seems to have been directly influenced by Seneca's *Natural Questions*. It has even been suggested, very speculatively, that it was written by Seneca's own Lucilius.⁵⁷

In the second century we have two extant, though frequently overlooked, works of physics written by Stoics. One is Cleomedes' *Lectures on Astronomy*. The other, even more neglected, is Aelian's *On the Characteristics of Animals*.⁵⁸ Aelian, what is more, wrote at least two other physical treatises: *On providence* and *On divine interventions*, though these have unfortunately not survived. Perhaps equally important from this period is the work of the Peripatetic Alexander of Aphrodisias. While obviously not a Stoic himself, Alexander felt that it was worth writing quite extensively *against* Stoic physics – in his *On mixture*, *On fate*

⁵¹ *Corpus die papiri filosofici greci e latini* I (1989), 35 1T, on which see Sedley (2005).

⁵² This is clear in the case of *On properties* because the sole fragment of this work, preserved at Syrianus, in *met.* 106.7, discusses Platonic Forms – more on which below.

⁵³ On which see Lowe (2014) – who, however, also detects other non-Stoic sources of influence in Manilius.

⁵⁴ Boechat (2010).

⁵⁵ E.g. Volk (2009), 30-1.

⁵⁶ Indeed, the point about continued *theoretical* relevance of Stoic physics is important. In a well-known article, Lapidge (1989) traces the widespread presence of Stoic cosmological themes in Roman literature, and argues that this is merely a literary phenomenon. Lapidge argues that for Romans (whom he sees as “patently uninterested” is cosmological speculation), such themes had simply become a literary commonplace, and need not suggest continued interest in the theoretical underpinnings of these ideas. Three points can be made against this. First, even if some authors were interested in motifs from Stoic physics primarily from a literary point of view, this is certainly not true of all authors writing in this period. Second, even if one were to argue that authors such as Manilius and the *Aetna* poet were only interested in these themes for artistic reasons, it remains the case that they still saw Stoic physics as the most relevant framework to employ in writing about nature. Third, and partially following from this, the very fact that Stoic cosmology remained the model of choice for thinking about the cosmos (even if only from an artistic point of view) may in itself be indirect evidence for the continued theoretical interest in Stoic physics. For, it does not seem unreasonable to suppose that these literary trends were themselves informed by contemporary intellectual trends in thought about the cosmos.

⁵⁷ This is based on Seneca's urging of Lucilius to write about natural philosophy in *Ep.* 88, coupled with the fact that Lucilius himself was based in Sicily. On the *Aetna* poem, including its Stoic leanings and sometimes verbatim correspondence with the *Natural Questions*, and apparent influence by Manilius' poem, see Lapidge (1989), 1409ff.

⁵⁸ Whose Stoic character is argued by Díaz-Regañón López (1983).

and, to a lesser extent, his *On the soul*. If Stoic physics was not still an active force in this period, why bother arguing?

In the third century, when Stoicism as a whole was on the decline, we nevertheless have an extant work of physics written by a Stoic. This is Achilles Tatius' *Introduction to Aratus*, which may or may not be the same as his *On the celestial sphere*.⁵⁹ In addition, Achilles wrote a (lost) *History* (one of several we see across this period, adding to counterparts by Aelian and Strabo, again indicating a range of interest beyond practical ethics) as well as, more significantly, yet another etymological work.

Moving into the fourth century, when Stoicism is generally considered to have ceased to exist as an active philosophical force, we nevertheless find several relevant works by an author who has sometimes been identified as a Stoic: Rufius Festus Avienus.⁶⁰ Avienus, who appears to have been a distant relation of Musonius Rufus, wrote yet another work on Aratus' *Phaenomena*, this time a (loose) translation, as well as two other poems on physical topics: *Descriptio orbis terrae* and the *Ora Maratima* – all of which to varying extents survive. Avienus' interest in such topics is significant because, if he was a Stoic, he would attest to an interest in Stoic physics right to the very end of our period – and, indeed, to the end of Stoicism itself. For, so far as I can tell, Avienus is the very last person in our record who might be considered a Stoic.

We must also not forget the many works that must, assuredly, have fallen from the historical record completely. While it is impossible to guess how many this might be, or to speculate about their subject-matter, it should be noted that there is evidence of many – very many – Stoics active during the post-Hellenistic period for whom we have no information but their names: something in the order of one-hundred-and-fifty.⁶¹ Had history favoured the preservation of even a fraction of the output of these philosophers, who knows how differently we would view post-Hellenistic Stoicism?

Why, then, has the practical ethics narrative persisted? The sole reason for this seems to be the choice of scholars to focus all but exclusively on the work of just four authors: Seneca, Musonius Rufus, Epictetus and Marcus Aurelius. While it is undeniable that these authors provide the *richest* source of evidence for Stoic thought in this period, we must be aware that they are rich primarily from just one point of view: precisely that of (practical) ethics. The

⁵⁹ A title mentioned in the Suda (Schaefer 1, col. 247). For discussion see Goulet *DPh* A8.

⁶⁰ See Goulet *DPh* A515.

⁶¹ This much is evident if one goes through Goulet (1989-) – though see esp. Goulet's 'Epimetrum' in the forthcoming edition of his *Dictionnaire*, which tabulates philosophers by school, period and region. Many of these Stoics were operating in Rome; but many, it should be noted, were not: following the closure of the schools, philosophical centres seem to have sprung up across the Mediterranean region.

broader range of evidence available, though, illustrates the relative narrowness of these interests, and should, therefore, caution us against basing our impression of this period purely on the work of just these four. The danger of doing so becomes even clearer when we consider the fact that, of these authors, one wrote a considerable amount on physics in any case; one was not a full-time philosopher, but an *emperor*; the other two left nothing of their own writings, and one of *these*, according to a recent study, may have been as much a Cynic (a sect that famously rejected the study of physics and logic) as he was a Stoic.⁶² This is not to deny the interest and importance of these authors; but in focussing our attention on them exclusively we are stripping away important context for our understanding of this period – perhaps even for our understanding of these authors themselves.

Having said all this, it is not the purpose of this thesis to engage closely with the broader range of technical interests of Stoic philosophers in this period (though a study of this kind is crying out to be undertaken). The focus here will remain quite narrowly on the concerns relevant to the *Natural Questions* – a work which does undoubtedly have a strong ethical drive. Nevertheless, it will be important for our purposes to be aware of this broader context for at least two reasons.

To begin with, it will caution us against the common tendency of reading the physical content of the *Natural Questions* as a kind of proxy for, or simply an artistic backdrop to, ethics.⁶³ Physics, as we have now seen, continued to be theoretically relevant to Stoics in this period, and thus there seems no reason to think out of hand that Seneca was any different. Indeed, considering that the *Natural Questions* was only one of several physical treatises written by Seneca, there is actually good reason to think that he took physics seriously. As we shall see, I argue that the physics in the *Natural Questions* is theoretically significant in its own right – meaning that the work’s goals could not have been achieved just as well within a more straightforwardly ethical context.⁶⁴

Second, an awareness of the fact that many Stoics in this period were still interested in more technical, theoretical matters will also caution us against automatically labelling the ethical argument of the *Natural Questions* as merely a form of *practical* ethics – ethics, that is, which is not particularly interested in the underlying theory. Indeed, although I shall argue that the ultimate drive of the work is indeed ethical, Seneca’s argument nevertheless involves

⁶² Inwood (2017), who suggests that there is “as much or more reason to think of him as a Cynic” as a Stoic, though goes on to argue that Musonius should probably be thought of as falling into a category of “generic philosopher” or “public intellectual”, without any particularly strong philosophical allegiances.

⁶³ Including, it should be noted, some of the more philosophical approaches to the text – e.g. Stahl (1960); (1964); Inwood (2005a), esp. 200.

⁶⁴ *Pace* Inwood (2005a), 200.

considerable engagement with theory, both ethical and physical. What is more, I shall strive to show how Seneca is required to *adapt* existing Stoic arguments in response to contemporary philosophical pressures – a point, however, that brings us to a second major misconception regarding Stoicism of this period.

3.2 Seneca, Platonism, 'eclecticism'

Accompanying the narrative of practical ethics, and indeed closely related to it, is the longstanding idea that the post-Hellenistic period was an era of philosophical stagnation.⁶⁵

The idea is well captured in the following from Long:

...they [Roman philosophers] were living at a time when all philosophy, as taught by Greeks, was characterized by school allegiance and authority rather than conceptual innovation or purely open-ended inquiry. The big developments in philosophy, associated with the emergence of Neoplatonism and Aristotelian commentary...postdate the figures we primarily think of as Roman philosophers. They are creative chiefly in the way they write about their Greek inheritance, in what they select from it, and in the educational mantle they assume.⁶⁶

Note, indeed, how Long combines this narrative with that of practical ethics. Although Long does not say this explicitly, the former assumption actually follows from the latter. For if the Stoics of this period were only interested in practical ethics, it stands to reason that their work should be devoid of significant theoretical innovation.

In fact, the perception of post-Hellenistic philosophy (and post-Hellenistic Stoicism in particular) was for a long time worse even than this. Rather than merely lacking the spirit of innovation, Stoicism of this period was seen as positively *retrograde*, degenerating into a kind of fuzzy thinking manifested in what has frequently been dubbed 'eclecticism'. According to some, this trend began as far back as Panaetius, when he, followed by his pupil Posidonius, began to experiment by incorporating various aspects of Plato's philosophy into their systems. Thus began, it has been suggested, a trend of Stoics selecting ideas from rival schools more or less as they pleased, unaware or uncaring of the philosophical corollaries of the theories they adopted.⁶⁷ Another version of this narrative, however, puts this trend down

⁶⁵ Somewhat ironically, this narrative of degeneration in post-Hellenistic philosophy was once seen as a continuation of a trend that actually began in the *Hellenistic* period. On this strand of scholarship, see Hadot (2004), 92). It seems remarkable that, despite the rehabilitation of Hellenistic philosophy in the latter half of the 20th century, the narrative persisted basically unquestioned for the post-Hellenistic period.

⁶⁶ Long (2003), 192.

⁶⁷ See, for example, Arnold (1911), 106ff; Holler (1934).

to a later development in this period: the rapid re-emergence of so-called ‘Middle’ Platonism.⁶⁸ On this latter reading, Stoics of this period were essentially won over by the arguments of this new school and began, as a result, to abandon a pure form of Stoicism in favour of one which incorporated elements of Platonism.

In this picture Seneca has again featured prominently. The primary reason for this is the obvious interest that he undoubtedly displays in Platonist philosophy.⁶⁹ This is most overt in the well-known 58th and 65th Letters,⁷⁰ in which he engages directly with a contemporary version of Platonic metaphysics. Beyond this, though, scholars have pointed to various elements of Seneca’s own thought – about god, for instance, or the soul – which seem to bear distinctive hallmarks of Platonism. The *Natural Questions* itself has formed an important part of this narrative due to the distinctly Platonic flavour of, above all, the preface to book 1 (a passage to which we shall return frequently).⁷¹ Whether this was down to the persuasive influence of Platonism,⁷² personal religious inclinations,⁷³ or simply because of a downright lack of philosophical acuity,⁷⁴ it is argued that Seneca was led to abandon ‘orthodox’ Stoicism and began to incorporate Platonist elements – often at the expense of philosophical consistency.

While the narrative of eclecticism has persisted in some quarters, often in more nuanced forms,⁷⁵ its popularity has in general waned.⁷⁶ With respect to Seneca, in any case, many have now begun to see the presence of Platonic tropes in his work in a completely different light.⁷⁷ Several scholars have argued that Seneca’s adoption of Platonising themes can be interpreted more or less as a feature of his *rhetorical* strategy. Seneca, it has been argued,

⁶⁸ E.g. Donini (1979); Natali (1992); (1994). For the duration of this thesis I shall omit the ‘Middle’ epithet of so-called Middle Platonists. Like Stoics of this period, they too were once seen in the same light of eclecticism and degeneration, with their designation as ‘Middle’ Platonists reflecting their status as mere precursors to the ‘big developments’ of Neoplatonism (to again borrow from Long’s characterisation). Much scholarship, however, has now shown ‘Middle’ Platonism to be an interesting and innovative movement in its own right. For more on this as a ‘transitional’ period in philosophy, see Engberg-Pedersen (2010) and esp. (2017), and strongly against the idea (from the same volume) Boys-Stones (2017).

⁶⁹ As well as the considerable attention paid to Epicurus in the early part of the *Letters*. On this, see esp. Griffin (2007).

⁷⁰ Throughout I employ the capitalised ‘Letter’ to refer to the specific epistles within the corpus of the *Letters*.

⁷¹ On the Platonising reading of the *Natural Questions* see esp. Donini (1979), ch. 3; Gauly (2004), ch. 4. See also Natali (1992), esp. 504ff, although she stops short of saying that Seneca ever unequivocally abandoned Stoicism.

⁷² Esp. Donini (1979).

⁷³ Natali (1992), an idea also explored by Setaioli (2007) – though both authors maintain that Seneca managed to maintain an essential commitment to Stoicism.

⁷⁴ Arnold (1911), 115.

⁷⁵ E.g. Sedley (2003).

⁷⁶ A trend that really got underway with the important collection, edited by Dillon and Long (1988), *The Question of ‘Eclecticism’*. See an excellent summary of scholarship on the concept of eclecticism in Engberg-Pedersen (2017).

⁷⁷ Though see still Gauly (2004); Sedley (2005).

uses Plato's powerful imagery to convey his ideas in a vivid and persuasive way – ideas which are nevertheless easily reconcilable within Stoicism.⁷⁸

While this scholarship is welcome, and generally very plausible, it nonetheless raises new questions with regard to Seneca's relationship with Platonism. In particular, if Seneca was *not* seeking some kind of rapprochement between the two schools, then what, precisely, is the root of his intense interest in Platonism? While the rhetorical power of Plato's imagery may well be part of it, this by itself does not feel like a complete answer. It is not as though Plato had a monopoly on powerful rhetoric; Seneca, of course, was an accomplished rhetorician in his own right. Even if, alternatively, we were merely to put it down to a matter of personal artistic preference, we would still have to ask why Seneca thought it legitimate to so frequently make use of the language of those whom he ought really to see as his philosophical adversaries. Indeed, once we do dispense with the conciliatory reading of Seneca vis-à-vis Platonism, it actually becomes quite surprising that we do not find Seneca adopting a more *adversarial* stance towards this school.

This apparent peculiarity of Seneca's actually reflects a broader puzzle about the philosophical dynamics of this period. For while the Platonists vociferously and aggressively attacked the Stoics throughout the post-Hellenistic period, the Stoics, for their part, seem little concerned to respond in kind, or even to defend themselves.⁷⁹ This oddity has, in fact, helped to feed the narrative of rapprochement and eclecticism, even seeming to explain it; for it creates the impression that the Stoics had simply been won over by the arguments of their rivals, perhaps becoming aware of inadequacies within their own system.⁸⁰

In fact, though, the alleged silence of the Stoics in this period has been overplayed – at least to a certain extent. While by no means as vocal as the Platonists, there is at least *some* evidence of Stoic polemic in this period. For instance, in a fragment of Cornutus – perhaps from his *On properties* – we find him describing Plato's forms as mere genera, apparently an attempt to reduce the Forms to mere mental constructs.⁸¹ If one interpreter is to be believed, there may also be an anti-Platonist undertone to another of Cornutus' works, the *Epidrome*,

⁷⁸ For this reading, see especially Reydams-Schils (2010); Inwood (2005b).

⁷⁹ Engberg-Pedersen (2017, 11) notes the common perception that "The Stoics, on their side, were basically unconcerned about the rising Platonism". Cf. Boys-Stones (2013), 128. For possible reasons for this apparent silence, see Boys-Stones (2009) – who suggests that their silence is in effect a deliberate attempt not to acknowledge the Platonists – and Bonazzi (2014); (2016) – who suggests that such polemical engagements were simply more important for the Platonists, who, as new philosophical contenders on the scene, needed to engage in noisy polemics as a way of carving out an identity for themselves.

⁸⁰ This idea will be picked up at the start of Chapter 2.

⁸¹ Syrianus, *in met.* 106.7. On this being the thrust of Cornutus' point, see Sedley (2005), 120-1 – although Sedley reads this not as polemical, but an attempt at rapprochement, since such a description of the Forms could be viewed by some contemporary Platonists as comparable to their own.

which may represent a subtle critique of Plato's *Timaeus*.⁸² We should also not forget that Cornutus also wrote a work *Against the Categories of Aristotle* which, while not directed against Platonism, nevertheless attests to his polemical mindset, and a keenness to continue to fight for the Stoic position.

A further example appears in the work of the Homeric commentator Heraclitus. Near the end of his allegorical exegesis, Heraclitus turns his sights against Plato, criticising not merely his expulsion of Homer from the ideal city (which is perhaps to be expected, given the context) but also against Plato's metaphysics. He calls Plato's Forms mere "twitterings" (τερτίσματα), which serve no practical or moral purpose.⁸³ While not an argument as such, the statement nevertheless represents an important example of hostility towards philosophical rivals among Stoic (or, at least, Stoically-inclined) writers in this period.⁸⁴

However, by far the most significant example – at least for our purposes – comes from none other than Seneca, in his 65th Letter.⁸⁵ I shall return to consider this text in more detail in later chapters. Here suffice it to say that, although this Letter is frequently taken as prime evidence for Seneca's conciliatory attitude towards Platonism, Seneca actually explicitly argues against what he sees as the superfluities of Platonist metaphysics, instead stating a clear preference for the simpler Stoic model.

While I would hesitate before making sweeping claims about Seneca's more general use of Platonic themes, or that of Stoics in the post-Hellenistic period more widely,⁸⁶ this evidence nevertheless demonstrates that Seneca's attitude towards Platonism, far from being conciliatory, could instead be positively adversarial.

This evidence counts strongly against both the narrative of eclecticism and that of post-Hellenistic Stoics as mere inheritors of a Hellenistic legacy, living in a period when nothing exciting was happening in philosophical terms. What it shows, in fact, is that at least some Stoics in this period were keenly aware of the new challenges arising from the changing philosophical landscape. Indeed, what is particularly interesting about the above examples of anti-Platonist sentiment is that they are each directed at the very same aspect of Platonist

⁸² Boys-Stones (2009).

⁸³ *Homeric Problems* 78-9.

⁸⁴ Indeed, Heraclitus goes on to criticise Epicurus as well – which helps to narrow down Heraclitus' allegiance towards Stoicism, since the Stoics are conspicuously *not* attacked.

⁸⁵ On the polemical character of Letter 65, taken together with 58, see Boys-Stones (2014). For the opposing view, see Sedley (2005).

⁸⁶ Some work has been done of the presence of Platonic tropes in Epictetus and Marcus Aurelius – see, for example, Gill (2007); Bénatouïl (2015). While my focus here will be on Seneca, it is an intriguing possibility that the presence of Platonic allusions in their work may also, on occasion, have a dialectical slant. It is certainly a question deserving further consideration.

philosophy: its metaphysics. This is highly significant, though, since it was precisely the Platonists reassertion of Plato's metaphysics that would define their re-emergence onto the philosophical scene. Indeed, it was on this very basis that they began to wage a philosophical war against rivals such as the Stoics. 'Big developments', in other words, were *already* taking place in this period, and the above evidence clearly attests both to Stoics' awareness of this, and their willingness, at least sometimes, to stand up for the Stoic position.

4. Summary: a dialectical reading of the *Natural Questions*

The possibility of dialectical engagement with Platonism is something that I would like to explore as part of my interpretation of the *Natural Questions*. This engagement, I shall argue, provides a crucial frame for understanding what is going on philosophically in the text. In particular, I shall argue that Seneca is engaging with a particular issue of considerable contention with the Platonists in this period: how to account for a well-grounded concept of the good. The Platonists, in short, argue that the Stoics cannot account for such a concept. This, they argue, is a result of the Stoics' empiricism, which has the effect of limiting agents to an inescapably partial view of the world, which in turn can only result in a partial and relative understanding of the good – equivalent ultimately to a narrow form of self-interest. This is a problem for the Stoics, however, since they argue that the good is something objective, grounded ultimately in the state of wellbeing in the cosmos as a whole. If the Platonists are right about the limitations of empiricism, however, grounding one's concept of the good in the wellbeing of the entire cosmos becomes completely untenable.

At first, connecting the *Natural Questions* to such a debate might come as something of a surprise. Seneca, it is true, does not explicitly mention this debate in the text. However, there are various statements at key points in the work that seem to speak directly to the sort of concerns raised by the Platonists on this matter. Moreover, these statements are phrased in terms which seem designed specifically to bring Platonism to mind.

Seneca's response to the problem, I suggest, is to argue that the study of physics can serve as a therapeutic tool to help agents transcend this restricted perspective on the world. Studying physics, he shows, not only leads us to an appreciation of the world's fundamentally rational nature but, in so doing, also serves to foster a sense of affinity with the cosmos – something that is vital if we are to develop an understanding of the good as bound up with cosmic wellbeing.

This model of physics as a kind of therapy has roots, I shall argue in the final chapter, that go back to the Hellenistic Stoa. Nevertheless, Seneca develops earlier ideas into

something much more systematic. What is particularly crucial for Seneca's therapeutic model is the *way* in which physical study is approached, which comes out in the carefully conceived structure that the aetiology takes in each book. In broad terms, this structure proceeds from the visible to the invisible, a 'methodology of abstraction' which serves – in Seneca's own terminology – to separate the soul from the body. This separation, I argue, is designed to draw attention to one's essentially rational nature, thus highlighting precisely what one has in common with the cosmos, in turn serving to foster a sense of affinity towards it.

What is intriguing about Seneca's adoption of this methodology, though, is that it seems closely to mirror an approach that the Platonists themselves advocate. Seneca, then, seems to be helping himself to the resources of his rivals. In the Conclusion I shall reflect back on what to make of this as a dialectical strategy. Some may wish to see this as simply an example of Seneca's propensity to incorporate elements of Platonism within his own thought. Nevertheless, I shall argue that this is not a case of eclecticism, nor an attempt at conciliation between the schools. Rather, Seneca's appropriation of this methodology should be seen as an attempt to resist the Platonist attack. Crucial to understanding this is the realisation that, despite adopting something from his rivals, Seneca nevertheless decidedly does not adopt any of the metaphysical baggage that goes along with it. Rather, Seneca harnesses the Platonist-inspired methodology to buttress the *Stoic* position, and does so in the face of a Platonist attempt to discredit that very position. While, as a dialectical strategy, this completely lacks the ferocity and aggression of Platonist polemical writing, this nevertheless represents a concerted attempt to *defend* the Stoic position against a specific line of attack. What is particularly ingenious about Seneca's strategy, I shall argue, is that by partially adopting a Platonist methodology, Seneca responds to the Platonists in terms that they ought basically to accept.

The work's structural scheme also turns out to be crucial for understanding the role of the moralising passages – though these are an innovation over and above both Stoic and Platonist models. If the aetiology is supposed to foster an understanding of the good as grounded in the cosmos as a whole, then these passages, I argue, caricature agents who have erroneously grounded their understanding of the good in narrowly self-interested terms – precisely the terms, in fact, that the Platonists say an empiricist agent must. Their function, I suggest, is to complement the goals of the aetiology in reorienting us towards the correct understanding of the good, though in this case by turning us *away* from the objects that we mistakenly articulate as goods. Crucial to their effectiveness in this respect, however, is the fact that these passages are positioned at very specific points in the text – points that are carefully

chosen to create a maximal and jarring contrast between the sense of ‘separation’ brought about through the aetiology.

The *Natural Questions*, then, emerges as a text of considerable interest. To begin with, it turns out to display a structural, thematic and philosophical unity that has seldom been accorded to it, with all parts of the text working together to form a definite and philosophically coherent purpose. Second, it shows Seneca to be critically engaged with theoretical issues beyond mere practical ethics. Finally – and particularly if I am right about the (anti-)Platonist dimension of the work – it also contributes to, and provides a case example for, a narrative of post-Hellenistic Stoicism that is much philosophically lively than has often been presumed.

The Unusual Form of the Natural Questions: Interpretive Approaches

1. Introduction: The unusual form of the Natural Questions

The *Natural Questions* has often been seen as an unusual text. It is, for one thing, a work of physics, written by a ‘moralist’, at a time when Stoics were supposed to be focussed on ‘practical ethics’. But even if we do away with these assumptions, as I think we should,¹ one still cannot help but feel that the work is, nevertheless, rather strange. The primary reason for this impression is the frankly arresting way in which Seneca regularly interrupts the physical investigation with moralising outbursts, dealing with themes that seem to have little to do with their surrounding context. Indeed, the nature of these passages seems so incongruous that the work has been seen as something of a mess. Scholars have judged the work to be without any coherent structure;² they have suggested that the collocation of ethics and physics is the result of a dubious attempt to combine two different sorts of discourse;³ or even that Seneca had no real interest in the physical subject matter, and that the physics merely serves as a technically challenging medium for his more typical moralising interests – a challenge that he ultimately fails to pull off.⁴ While such negative perceptions are beginning to change, the question of how to make sense of the work remains a contentious one.

The mere combination of ethics and physics should not, perhaps, strike us as especially odd. Seneca is of course a Stoic, and the Stoics famously boasted of the unitary nature of their system, with a close relationship between all three branches of the philosophical curriculum – logic, ethics and physics.⁵ The thing that is striking, rather, is the *manner* in which Seneca goes about combining the two.

Part of the problem is that the ‘ethics’ is confined to various prefaces, digressions and epilogues. This immediately creates a sense of separation between the two parts of the text. This impression is reinforced, however, by the awkward ways in which Seneca moves from one part of the work to the other. The moralising passages are typically introduced abruptly,

¹ See Introduction.

² Reinhardt (1921), 51ff; 140; Pohlenz (1948), 33. Cf. Sandbach (1975), 158.

³ Gigon (1991) – who, however, ultimately leaves the extent of Seneca’s success an open question.

⁴ Gercke (1895), 312; Münscher (1922) – who accuses Seneca of a downright lack of seriousness in the work. More recently Inwood (2005a, 200), while not going so far as Gercke in denying Seneca’s interest in physics, nevertheless suggests that Seneca’s choice of meteorology in particular (“evidently the driest and least appealing genre in the philosophical repertoire”) was motivated by a desire to show his literary brilliance – something at which Inwood surmises he ultimately failed, given the work’s longstanding unpopularity.

⁵ D. L. 7.39-41; S. E. M. 7.19; Seneca *Ep.* 88.25-8; Cicero *De fin.* 3.74-5.

with jarring formal devices such as the suddenly professed desire to tell a “story” (5.15.1; 1.16.1) or else in response to a contrived interruption from Lucilius, requesting moral instruction instead of the technical investigation (4b.13.1; 2.59.1. Cf. 6.32.1).

What is especially puzzling, however, is the *content* of these passages, which frequently appears to have scarcely (if anything) to do with the surrounding physical discussion. In the middle of book 3, for example, Seneca has been exploring the causes of rivers. Part of the explanation has involved positing the existence of underground caverns that, Seneca goes on to suggest, often contain fish-like animals, which explains why fish are periodically dug out of the ground. Imagining Lucilius’ incredulity, Seneca remarks that his amazement is misplaced, and he should instead be amazed by the inventions of luxury – in particular, the practice of watching fish die at the dining table. This gives way to a vivid tirade against this custom, and a vicious attack on those who engage in it. Subsequently, Seneca apologizes for losing his composure, and returns to the investigation (3.16.4-18.7).

This is a recurrent pattern. Frequently there is *some* connection between the physical discussion and the subsequent moralising passage; but typically this is so manifestly weak (as it is above) that, if anything, it serves simply to underscore the sense of incongruity. In book 4b, for example, the discussion of the formation of snow and hail gives way – following a request for moral benefit from Lucilius – to a diatribe against the practice of using snow to cool drinks (4b.13.1-11). In book 5, the central digression tells a *fabula* detailing how Philip’s men were once sent down an abandoned mine in search of gold – the justification for which is ostensibly the preceding mention of a theory that winds originate from subterranean caves (5.15.1-4). In book 1, the discussion of various reflective phenomena (rainbows and the like) gives rise, in the epilogue, to a shocking *fabella* about one Hostius Quadra – a man who delighted in using a panorama of mirrors to view his lavish sexual encounters from every possible angle (1.16.1-17.10). Even these superficial connections are not always present, however. Following book 4a’s lengthy preface on the dangers of flattery (4b pref. 1-1.1), Seneca makes no attempt to connect this theme with the subsequent investigation of the Nile’s flooding – except for the idea that the investigation of this topic will serve to draw Lucilius away from his present situation.⁶

⁶ Limburg (2007, 185) finds one parallel where the topic of flattery is associated with the Nile, in a late text by John Chrysostom (4th-5th century). However, she herself highlights the tenuousness of the connection and notes that, if Seneca did have it in mind, it is remarkable he does not mention it. Codoñer (1989, 1812) sees so little connection between the preface and the rest of the book that she suggests that the preface may have originally been written as one of the *Letters*, but was then adapted for this context. Codoñer thus suggests it would be futile to look for close thematic connections with the rest of the book.

In some cases, it is true, the connection between the physical and ethical themes can seem slightly more reasonable – at least on first inspection. In book 7, for instance, the observation that a great deal of further study will be required to discover the orbits of comets leads Seneca to bemoan humanity’s lack of interest in philosophy because of its total dedication to luxury (7.30.1-32.4). In book 5, the discussion of winds gives way to an epilogue inveighing against man’s inclination to go to war in search of wealth – in which the winds play a role by propelling armies across the seas (5.18.1-16). Meanwhile, in the epilogues to both book 6 and book 2,⁷ the discussion of the fear of death is brought about in response to the fearsomeness of the phenomena in question – earthquakes and lightning, respectively (6.32.1-12; 2.59.1-13). Even in these cases, however, the connection can seem somewhat superficial. In book 6 and 2, the discussion quickly moves away from the fear of lightning and earthquakes as causes of death, to a discussion of the fear of death in general. Similarly, in book 5, winds quickly disappear from the discussion, which rapidly becomes an impassioned indictment against man’s over-willingness to go to war, risking great peril for the sake of wealth.⁸ In book 7, although the need for further investigation of comets might conceivably justify the comments about mankind’s dedication to luxury (as this is what allegedly distracts us from philosophical pursuits), it does not seem to justify, on the other hand, the graphic references to lavish sexual practices, transvestism, and genital mutilation with which the epilogue begins (7.31.1-3).

Indeed, one of the most puzzling things about these moralising passages – and something that unites them all⁹ – is their specific and exclusive focus on the activities of *vice* – vice, moreover, that is described with an avid (and at times almost prurient) attention to detail. It is, indeed, this more than anything else that creates a sense of incongruity between the different portions of the text.

Seneca’s choice to collocate *these* sorts of ethical themes with his physics also raises another question: what the *theoretical* relationship between the ethics and physics is in the

⁷ On the *preface* to book 6 – which also discusses fear of death – and why I think it should not be considered among the ‘moralising passages’, properly speaking, see Chapter 4.

⁸ Berno (2003, 18-19) believes that the connection of navigation and the search for wealth is such a familiar literary topos in ancient literature that she chooses barely to discuss this passage in her monograph (cf. Limburg (2007), 249ff.) While this might be true, it should be pointed out the move is actually from a discussion of *winds* (not navigation, per se) to the search for wealth. Thus I would question whether the move is as “predictable” as Berno claims. In any case, whatever the *literary* precedent, such an association is nevertheless unusual in the current context: a work of *philosophical physics*. Indeed, to assume that Seneca’s primary influences and sources of motivation in this work are literary is slightly question-begging, and certainly up for debate. This point will be discussed further below.

⁹ The exceptions being the prefaces to books 3 and 1. More on these below, though I shall also argue in Chapter 4 that these passages should be distinguished from the other moralising passages, serving instead a more general programmatic function.

Natural Questions. This question of the relationship between physics and ethics is, it should be noted, hotly debated for Stoicism as a whole, and we shall come back to discuss this matter in more detail in Chapter 5. However, it is probably safe to say that most scholars would not consider this relationship to be exemplified by the particular sort of collocation we find in the *Natural Questions*: vivid accounts of vice only tangentially related to the physical discussion. Instead – at the risk of begging the question – the sorts of ethical themes we *might* expect to find in a work of Stoic physics are those concerning the place of man in the cosmos, our relationship to the divine, and the need for us to live in accordance with nature. These conclusions, moreover, we might expect to be derived organically from the physical discussion itself. But while these ideas do come up occasionally¹⁰, there is, on the face of it, no systematic attempt to derive these conclusions from the aetiological sections of the work.

Almost the only places where these ideas *do* come up are during the prefaces to books 3 and 1. These prefaces, moreover, are widely regarded¹¹ as being programmatic for the work as a whole – for the very good reason that they are the only places in the work where Seneca speaks at any length about the relationship of physics and ethics. As such, we might hope that these prefaces could guide us with respect to the broader relationship between ethics and physics in the work. In the preface to book 1, Seneca emphasises that the study of nature can give us a broader perspective on the ills of mankind, and can ultimately bring us into a kind of “partnership” with god. Both prefaces emphasise the morally transformative effect that the study of nature can bring about, helping us to become better at dealing with human affairs. The trouble (and this is precisely the problem) is that it is difficult to see how these ideas play out in the work as a whole. Rather than developing ideas about theology and providential nature in the aetiological sections, and then drawing ethical conclusions from these findings in the ethical sections – as we *might* have expected – it is instead, as we have seen, very difficult to see how the physical portions of the work are relevant to the ethical portions at all. Indeed, even in books 3 and 1, where these programmatic prefaces appear, there is no overt attempt to connect the subsequent aetiological investigation with what has been said in the respective prefaces.¹²

¹⁰ Although, notably, the idea of ‘living in accordance with nature’ is never explicitly formulated in the text, as Donini (1979, 219) points out (which is a problem for Scott (1999), who places the idea of ‘living in accordance with nature’ at the heart of his interpretation of the text).

¹¹ E.g. Codoñer (1989), 1811-13; Scott (1999), 59; Williams (2012), 29.

¹² A fact that has often been the basis of criticism of the work. Gross (1989, esp. 318-19) tries to resolve the issue (at least with respect to book 1) by arguing that the *Natural Questions* is incomplete, and the preface to book 1 was actually intended to be the beginning of a whole new section of the work, dedicated to the celestial sphere, which was left unfinished upon Seneca’s death.

More recently, however, a number of scholars have questioned the traditional perception of disorder in the *Natural Questions*. On the contrary, they claim the work is not only coherently structured, but also that the moralising passages are actually, despite initial appearances, carefully integrated with their aetiological context. This is done, it is claimed, through a variety of thematic, artistic or lexical correspondences. Stahl,¹³ Waiblinger¹⁴ and, more recently, Berno¹⁵ and Williams¹⁶ have all argued – in various ways – that themes, words and concepts used in the aetiological sections subsequently recur in the moralising passages, where they are explored under a different, ethically significant aspect.

There can be little doubt that these studies have made enormous progress in mapping out the artistic themes of the work. However, regarding what can be called their ‘integrating’ approach, all of these studies tend, in my opinion, to exhibit a similar set of problems. To begin with, several of them effectively reduce the physical portions of the work to the function of preparing the reader for the moralising portions.¹⁷ This seems problematic, first, since it suggests that the *Natural Questions* is ‘about’ the moralising passages – that they are the centrepieces around which the work is built.¹⁸ But this is questionable, not least because these passages take up a relatively small portion of the text. Second, though, it also results in a rather strange conception of the *theoretical* relationship between ethics and physics – where physics becomes merely an instrument to introduce moral themes. It tends, put another way, to turn physics into a kind of proxy for ethical discourse, which in turn seems to strip physics of any inherent significance. This, though, seems at odds with the equal weight that the Stoics accord to each of the three branches of philosophy.

What is also troubling about these integrating approaches, though, is that the complex webs of thematic and lexical connections that these scholars detect can seem somewhat overwrought and, at times, rather subjective.¹⁹ A good example of this concerns the connection between the investigation of optical phenomena in book 1 and the lurid anecdote

¹³ Stahl (1960); (1964).

¹⁴ Waiblinger (1977).

¹⁵ Berno (2003).

¹⁶ Williams (2012).

¹⁷ This is certainly the case with Stahl, Waiblinger and Berno. Williams might be an exception, since he maintains that the physics does serve a function of its own. At times, however, Williams does seem to lapse into a similar view – as when, for example, he suggests that Seneca chooses physical theories for the general, artistic tendencies they convey, “whatever the merits or plausibility of individual theories” (18). As with the other approaches, this seems to reduce physics to a mere artistic instrument, stripping it of any inherent value. Against reducing the aetiology in this way, see Strohm (1977).

¹⁸ Something clearly suggested by Stahl (1964, 428) – who suggests the moralising passages are the “pillars” around which the work is written – and implied by Berno (2003), 16-17.

¹⁹ As Hine (2010b, 14) helpfully summarises, Waiblinger’s work in particular has come in for criticism for its subjective use of evidence.

of Hostius Quadra that concludes it. Noting the connection provided by the theme of mirrors, Williams and a number of others argue that the preceding sequence of optical phenomena is structured according to the ever-greater distortion with which they reflect the sun. Coming at the end of this sequence, therefore, Quadra (who delights in the distorted reflections of his own bodily members) represents a fitting climax – both in terms of literal optical distortion, and also in terms of the figurative moral distortion that his behaviour represents.²⁰ As reasonable as this might appear, the trouble is that several scholars interpret this sequence of optical phenomena in different – indeed, completely the opposite – terms. Rather than an ever-increasing level of distortion, Stahl²¹ and Waiblinger²² detect a progression towards an ever-more complete and perfect reflection of the sun. Of course, this does not necessarily mean that both interpretations are incorrect; but the fact that these devices are open to such opposing readings ought to make us question whether Seneca really *intended* us to make these connections.

However, the greatest difficulty with the integrating approaches is the way they tend, I think, to gloss over the respects in which the moralising passages are manifestly *not* especially well integrated with the aetiology. Even as a symbolic manifestation of the optical distortions found in nature, it is difficult to deny that the abrupt introduction of Quadra at the end of the book comes as something as a surprise. Indeed, even if there is some level of thematic overlap here, I do not think this is sufficient to smooth over the quite obvious sense in which this anecdote is at odds with the level tone of inquiry that has characterised the preceding aetiology.

Because much the same could be said for each of the moralising passages, I think we must face up to the fact that Seneca does not seem to have been overly concerned about neatly integrating these passages. However, significantly, this need not mean that we judge the work a failure. Rather, having accepted the sense of disconnect between these passages and the rest of the text, our job as interpreters ought to be to consider whether there are any factors which might *explain* Seneca's choice to write the work in this way. The aim of this chapter, then, is to do just this – reviewing, as we go, various possible influencing factors that may have explained Seneca's choice to write the work the way that he did. At the end of the chapter I shall make the case for a new approach: one which looks to the influence of contemporary philosophical debate as a potential motivating factor.

²⁰ Williams (2012), 58f., following Leitão (1998).

²¹ Stahl (1960), 48.

²² Waiblinger (1977), 64.

2. The Stoic tradition of physical writing

Considering that the *Natural Questions* is, at least on the face of it, a work of Stoic physics,²³ one important potential source of influence is the Stoic natural philosophical tradition. Indeed, it would be quite surprising if Seneca were not to some extent influenced by this. The problem, of course, is that so little remains of Stoic writing on physics that is difficult to evaluate the extent of this influence. At the same time, our ignorance in this respect should also caution us against making any assumptions out of hand about the unusualness of the *Natural Questions*. While it seems prima facie unlikely that this work is just a run-of-the-mill work of Stoic physics, we should nevertheless examine the evidence to see whether such an assumption can be substantiated.

One way to begin to assess this question is to consider whether the sort of physics Seneca writes about in the *Natural Questions* (which is to say, a technical aetiological investigation, seeking to find the causes of specific natural phenomena) is the sort of physics which interested earlier Stoics. Indeed, it is sometimes claimed that the early Stoics were not overly interested in this sort of technical inquiry, having only a much more restricted interest in physics – perhaps limited to broad cosmological phenomena. Part of the reason for thinking this stems from the comment made in Cicero's *De finibus* 4,²⁴ where the author maintains that Stoic physics was a much less complete (and in any case largely plagiarised) version of Peripatetic physics. To this can be added a comment from Strabo, who maintains that Posidonius – who certainly *did* write about this sort of technical physics – was engaging in a Peripatetic, rather than Stoic, approach to the subject. Indeed, Gigon has argued that the *Natural Questions* – or at least its aetiological portions – should not be located in the Stoic tradition at all, but rather that of the Aristotelian genre of προβλήματα. Seneca, Gigon argues, attempts to combine this Peripatetic-style inquiry with Socratic-Stoic moralising – which accounts for the unusual collocation of the two forms of discourse.²⁵

However, there are a number of reasons to question this reading. In the case of the comment made by Cicero, we need to pay close attention to the context in which it occurs. In book 4 of *De finibus*, Cicero is actually engaging in a polemic against the Stoics, in which his strategy is to show that Stoic philosophy *as a whole* was actually just a plagiarised, and inferior, version of Peripatetic philosophy. Just as there is reason to doubt this broader claim, so too should we think twice before accepting the point about Stoic physics at face value.

²³ Argued by Limburg (2007), 72 ff. See Introduction, n. 6.

²⁴ *De fin.* 4.12.

²⁵ Gigon (1991). Gigon, however, does not offer any particular motive for Seneca wishing to combine these two traditions.

One reason why Cicero might have felt justified in making this claim, at least with respect to physics, is that the Peripatetics were notoriously prolific in the field of natural philosophy. Cicero can thus, in a sense, legitimately claim that Stoic physics is inferior – though *of course* it is going to seem inferior when measured against that bar.

The context is also important for the comment made by Strabo. What is important to note here is that Strabo's comment is actually not about physics, *per se*, but *geography* – which might technically speaking be considered a branch of *science*. Considering the fact that the Stoics (including Posidonius himself) distinguished physics and science precisely on the basis that, while physics examines causes, science does not,²⁶ Strabo's point could simply be that Posidonius was unusual for examining causes in his *scientific* writings.

Finally, against Gigon's association of the *Natural Questions* with the *προβλήματα* tradition, Hine has argued convincingly that, despite the ostensible correspondence between 'προβλήματα' and the 'quaestiones' in the title of Seneca's work, there is actually little in the *Natural Questions* itself to associate it with that genre. As Hine shows, *προβλήματα* works consistently take a short question-and-answer format, something that we generally do not find in Seneca's work.²⁷

In any case, there is actually a fair amount of evidence that the early Stoics were, in fact, interested in this technical sort of physics, beginning even with Zeno. In addition to more general cosmological interests, fragments of Zeno's *On the Whole* record a theory of how lightning is produced,²⁸ and an explanation of how the moon eclipses the sun – apparently accompanied by diagrams.²⁹ Fragments from unnamed works report theories about comets,³⁰ procreation³¹ and disease,³² to name but a few; and all of this is in addition to the more fundamental cosmological theories: cosmogony, elements, conflagration, etc.³³ Some doubt has been cast on the Zenonian provenance of fragments not attributed to individual works;³⁴ but even so, the fragments from *On the Whole* attest to at least some level of interest in such matters. We see similar technical interests in Cleanthes,³⁵ who is also known to have written a commentary on Zeno's natural philosophical works. Meanwhile, a great deal of evidence

²⁶ EK T42; Seneca *Ep.* 88.

²⁷ Hine (1981), 27ff.; see 24-6 on the title of the work, with Codoñer (1989), 1779-1784.

²⁸ *SVF* 1.117

²⁹ *SVF* 1.119.

³⁰ *NQ* 7.19.1 (= *SVF* 1.122).

³¹ *SVF* 1.129, 1.127, 1.128

³² *SVF* 1.131

³³ *SVF* 1.115-121.

³⁴ Algra (2002).

³⁵ See esp. *SVF* 1.505-8; 515.

for Chrysippus clearly displays his interest in both broad cosmology and the more detailed aspects of natural aetiology.³⁶ This is not to mention, of course, the wide-ranging interest in such matters displayed by Posidonius. It would seem, then, that Seneca's attention to this technical kind of physics was not particularly unusual in the Stoic tradition, making the possibility of influence seem more likely.

What, though, of the combination of ethics with this kind of physics? While the Stoics certainly posited a close relationship between the branches of philosophy, is there any evidence that they combined these in a way approximating what we find in the *Natural Questions*? There is, as happens, at least *some* evidence that could be taken to suggest this. In his *On Stoic Self-Contradictions*, Plutarch accuses Chrysippus of having contradicted himself regarding the proper order in which the parts of philosophy should be taught. While in some works it is physics, and ultimately theology, that Chrysippus says must be taught last, elsewhere he seems to say just the opposite³⁷:

But this very branch of philosophy that he says must be placed last – that concerning the gods – he habitually places first, namely as a preface to all his ethical inquiries.

(Plutarch, *Sto. rep.* 1035B, my trans.)

What is interesting here is the suggestion that Chrysippus used to “put first” or even “preface” (προεκτίθησι) his ethical works with a theological discourse. The fact that it is ethical works prefaced with physical discourse, rather than the other way around (as it is in Seneca) does not seem overly important here. What this seems to suggest is that Chrysippus regularly combined ethics and physics in the same works and may even have ‘compartmentalised’ the two sorts of discourse in a way comparable to Seneca – one sort restricted to prefaces, the other to the main body.

This, however, seems to stretch the evidence too far. Indeed, what Plutarch goes on to say about Chrysippus' work gives reasons to doubt that there was any great similarity between the way these authors combined ethics and physics. Having highlighted the alleged

³⁶ *SVF* 2.748; 2.652; 2.701; 2.703; 2.704; Stobaeus, *Ecl.* 1, 206.25.

³⁷ Recent scholarship has rightly cast doubt on the seriousness of this alleged contradiction. Rather than a hard-and-fast ordering of the philosophical parts, it seems altogether more likely that Chrysippus advocated a different ordering in different contexts, likely depending on the purpose of a given work, or its intended audience. Indeed, as Plutarch himself goes on to note, Chrysippus also said that students should not neglect the other parts of philosophy even when they are just starting off with, say, logic. Overall, this seems to cohere well with evidence elsewhere that some Stoics (presumably Chrysippus among them) advocated a ‘mixed’ teaching of the parts of philosophy (D. L. 7.40). On the question of the ordering of the parts of philosophy, see Hadot (1979); Ierodikonou (1993); Annas (2007).

contradiction, Plutarch goes on to give examples of the kinds of topics that Chrysippus would habitually place at the start of his ethical works:

For whether concerning the end, or the good and bad, or marriage and child-rearing, or law and government, it is evident that he does not so much as utter a sound unless, just as those introduce decrees to cities first write “Good Fortune”, he, in the same way, writes first “Zeus”, “Fate”, “Providence”, or that the cosmos, being one and finite, is held together by a single power – nothing of which is going to be persuasive unless one is already thoroughly mixed up with their physical theories. (Plutarch, *Sto. rep.* 1035B, my trans.)

What this seems to suggest – sparse though the details are – is that these ‘prefaces’ contained only fairly general statements about Stoic physics, aiming, I would guess, to contextualise the subsequent discussion – a reminder, perhaps, *that* the parts of Stoic philosophy are closely related, that Zeus or nature provide the ultimate normative framework for Stoic ethics.³⁸ Indeed, this impression is confirmed when Plutarch goes on to quote Chrysippus directly (and we should note that Plutarch’s source is now Chrysippus’ *physical* works,³⁹ which are apparently being ‘prefaced’ with *ethical* considerations):

Listen to what he says about this in the third book of his *On the Gods*: “For there is no other way to discover the principle, nor any other source of justice other than from Zeus and from universal nature; for it is necessary that everything of this sort take its principle from there if we are to have a chance of saying anything concerning goods and evils.” Again in his *Natural Theses*: “For there is no other or more appropriate way of approaching the account of goods and evils, or the virtues, or happiness, than from universal nature and the government of the cosmos”. And again, further on: “For it is necessary that the account of goods and evils be connected to this, there being no other principle or better standard for these things, nor should physical speculation be undertaken for anything other than the differentiation of goods and evils. (Plutarch, *Sto. rep.* 1035CD, my trans.)

Here, even more clearly, we can see how such statements seem intended to contextualise the subsequent discussion – to make the point that physics *is* relevant to ethics, and relevant because it provides the ultimate grounds for our understanding of good and evil.

This would seem to suggest that, even though Chrysippus did (sometimes?) preface his ethical works with physical passages (and possibly vice versa), it does not seem that the content of these passages was anything like what we find in the majority of the moralising parts of the *Natural Questions* – namely, vivid descriptions of vice. Instead, the kinds of ethical and physical themes that Chrysippus combines here are far more in line (again at risk of over-generalising) with our *expectations* of what a Stoic might wish to combine – ideas of providence, and the cosmic context of ethics. Although, as we have seen, Seneca does

³⁸ Although this is controversial – see Chapter 5.

³⁹ Famously pointed out by Brunschwig (1991).

sometimes refer to such things in the *Natural Questions* (most prominently in the prefaces to books 3 and 1), on the whole these are not the focus of the moralising portions of the work.

Of course, however rich and useful this passage of Plutarch is, it is clearly not a lot to go on to establish the character of Stoic works of physics in general. However, although frequently overlooked,⁴⁰ there do survive a number of examples of Stoic physical writing. Although these date from much later, they might nevertheless help us to get a general idea of the character of Stoic works of physics. One especially important example in this respect is Cleomedes' so-called *Lectures on Astronomy*. What is significant about Cleomedes' work for our present purposes is that he explicitly tells us that he is drawing heavily on a work by Posidonius. While there is no reason to think he is reproducing this work verbatim, Cleomedes' work may nevertheless give us a reasonable glimpse into the character of physical writing at that earlier stage in the tradition.

Interestingly, then, there are ostensibly some similarities between Cleomedes' work and the *Natural Questions*. For one thing, both are concerned with technical physical subject matter. More importantly, though, near the end of 2.1 Cleomedes makes an ad hominem attack on Epicurus where, significantly, the *ethical* views of this philosopher come under fire:

Will you not be off, evil degenerate, to your saffron-robed whores, with whom you will dally on couches, whether combing purple wool, or wreathed in crowns, or with your eyes painted, or even entertained by the *aulos* in excessive and unseemly drunkenness, and then coming to the final act like a worm wallowing in utterly vile and excremental slime? So will you not be off, "most brazen and shameless soul," routed from Philosophy, to Leontion, Philainis, and the other whores, and to your "sacred ululations" with Mindyrides, Sardanapalus and all your boon companions? Do you not see that Philosophy summons Hercules and Herculean men, certainly not perverts and their pleasures? Indeed, it is evident, I think, to cultivated people that Epicurus has nothing to do with astronomy, let alone with philosophy (2.1.511f., trans. Todd and Bowen)

However, while the theme of hedonistic depravity might resonate with certain parts of the *Natural Questions*, this passage, and its relationship with its surrounding context, is actually quite different from what we find in Seneca's work. To begin with, although Epicurus' hedonism is attacked at the end of the chapter, these comments actually form just one part of a longer polemic that has been the focus of this entire preceding chapter – namely, against Epicurus' view that the sun is merely a foot across. While the switch to an ethical theme represents a change of subject, this is nothing like the thematic discontinuity that we find in Seneca's work. What is more, the switch to Epicurus' ethical views is easily explainable within the polemical context: for any Stoic attacking Epicurus, such low-hanging fruit would

⁴⁰ See Introduction.

have been simply too tempting to ignore. More importantly, though, this solitary excursion into ethics represents nothing like the systematic collocation of ethics and physics that we find in the *Natural Questions*. Indeed, aside from this short passage, the rest of Cleomedes work remains focussed on the physical topics at hand.

Overall, then, it does not seem as though the influence of the Stoic physical tradition can, in itself, account for the form of the *Natural Questions*. Although Seneca's interest in technical physical matters does not seem to have been particularly unusual, and although other Stoics seem to have combined ethics and physics to some extent, the small amount of evidence that we have of the earlier tradition seems to confirm our initial impression that the *Natural Questions* is an unusual example of Stoic physical writing.

3. *Literary convention*

Some might argue that we should not be especially surprised if Seneca is not responding, in the first instance, to the philosophical tradition; for many scholars prefer to view Seneca's work primarily through a literary lens.⁴¹ It is possible, then, that we should be looking for literary rather than philosophical influences to explain the unusual form of the *Natural Questions*. While, as I made clear in the Introduction, my own approach to Seneca is very much from a philosophical point of view, I would not go so far as to deny that Seneca's work has a prominent literary quality. As such, it cannot be ruled out that literary considerations have an important – and perhaps even decisive – role to play.

One scholar who has argued that literary considerations are the *primary* motivation behind the form of the work is Limburg.⁴² She, like me, is sceptical of the 'integrating' approach adopted by some scholars, and bluntly accepts there is a sense of disconnection between the ethical and physical passages. Limburg's main contention, though, is that the practice of attaching moralising prefaces and epilogues⁴³ to technical works is by no means

⁴¹ This inclination is made clear by two major recent publications on Seneca: *The Cambridge Companion to Seneca* (edited by Bartsch and Schiesaro (2015)) and *Seneca Philosophus* (edited by Wildberger (2014)). The former is dominated by literary approaches to Seneca. The latter, of course, takes an overtly philosophical approach – but the very fact that it is felt necessary to *specify* this only draws attention to the dominant perception of Seneca as, first and foremost, a literary figure. This approach to Seneca is sometime pursued at the expense of his reputation as a philosopher. That said, many scholars have now begun to explore the ways in which the literary form of Seneca's work feeds into and enhances his philosophical message. For a recent example, see Gunderson (2015).

⁴² Limburg (2007).

⁴³ Limburg, however, declines to discuss digressions, thereby omitting detailed discussion of the moralising passages that occur in the middle of books 3 and 5 (3.17.1f; 5.15.1f). Although such an omission should perhaps be forgiven in the context of what is already a lengthy and detailed doctoral thesis, it is nevertheless methodologically questionable, leaving doubts as to whether literary influence can account for the form of the work as a whole.

unique to Seneca, but simply reflects prevailing literary custom. Drawing attention to the conventions of didactic poetry and other technical writing, Limburg points out that many of these works contain prefaces, which frequently touch upon moral themes, and which are, like those in the *Natural Questions*, often linked only tangentially to the technical subject matter of the work in which they appear. According to custom, the function of these passages was to entertain the reader, and make them well-disposed to the author; however they might also serve to frame the subsequent technical discussion, indicating how that material should be read. In the case of the *Natural Questions*, therefore, Limburg suggests that the moralising character of the prefaces indicates that the physics is supposed to be read in an ethical context.⁴⁴ However, Limburg nevertheless denies that the content of these passages has a direct bearing on our reading of the physics. For, although she does not deny that Seneca holds the orthodox view regarding the unity of the parts of philosophy, she nevertheless suggests that the ethics and the physics in the *Natural Questions* each have their own *independent* ends. Ultimately, then, Limburg's reading suggests that we should not look for a deeper sense of unity in the work. From a literary point of view, Seneca is simply mirroring convention; philosophically speaking, the ethical and physical parts of the work have their own discrete ends.

While I agree with Limburg's rejection of the integrating approach adopted by some scholars, her own approach raises a number of troubling questions. Some of these concern Limburg's methodology. For instance, in her discussion of the literary conventions governing prefaces, Limburg draws in part on ancient rhetorical theory, which is used as a basis for her suggestion that the traditional 'framing' and pleasure-giving functions apply to the *Natural Questions*. However, when it comes to epilogues, Limburg notes that "ancient rhetorical theory concerning epilogues is of less interest for the study of the *Naturales Quaestiones* than that concerning prefaces".⁴⁵ Limburg points out that epilogues, according to rhetorical theory, should contain "a summary of the preceding argumentation and an appeal to the emotions", and she acknowledges that neither of these features are particularly characteristic of the epilogues in the *Natural Questions*. As a result, Limburg argues that we should consider "both types of texts [sc. prefaces and epilogues] as one category of moralizing passages", on the basis that both have a similar character.⁴⁶ This, however, seems problematic. On the one hand, if ancient rhetorical theory influenced the structure of the *Natural Questions*, the fact

⁴⁴ See esp. Limburg's Ch. 1.

⁴⁵ Limburg (2007), 23.

⁴⁶ *Op. cit.*, 24.

that the epilogues in the work fail to conform to rhetorical norms clearly shows that Seneca, at the very least, did not feel *bound* by these conventions. Moreover, aside from being rather question-begging, Limburg's reduction of prefaces and epilogues to one sort of passages seems to suggest, on the contrary, that Seneca was happy to innovate within established convention (writing epilogues in a style that would normally be reserved for prefaces being, perhaps, just one example).

Indeed, Seneca's propensity to innovate within established convention is also implied by Limburg's comparison of the *Natural Questions* to the work of authors such as Virgil and Lucretius.⁴⁷ Limburg thinks it significant that the work of these authors also have prefaces and epilogues that include moral themes; but she also notes that epilogues in these works are not nearly so prominent as they are in the *Natural Questions*. Again, this would seem to imply that, even if Seneca makes use of certain conventional devices, he is at least employing them in a less in a less-than-conventional manner.

Fundamentally, though, even if Seneca's work were shown to be entirely conventional in its use of moralising prefaces and epilogues (though the above gives grounds for doubting whether this could be done), this would not, in any case, *explain* a great deal about the text except at a rather superficial level. It is uncharitable to both the *Natural Questions* and the preceding tradition if we assume that these texts are the way they are just, or primarily, *because* that is how texts were conventionally written. Limburg is undeniably correct that Seneca makes ample use of what she calls 'prefatory commonplaces', and her work does an excellent job in mapping these throughout the *Natural Questions*. However, if we halt our interpretation of the text at this level of analysis, we effectively close down the possibility of discerning any more interesting possibilities. In particular, this approach shuts down the possibility of discovering a *unitary* purpose behind the form of the work, since it assumes out of hand that the moralising passages are basically removable appendages.⁴⁸

But such an approach is all the more risky, I believe, when we are dealing with a *philosophical* text such as the *Natural Questions*. For whatever the work's relationship with literary convention (and it should be noted that the vast majority of the texts that Limburg compares the *Natural Questions* to are *not* philosophical in nature) the philosophical character of the work also means that we must constantly have in mind the underlying

⁴⁷ *Op cit.*, 47ff.

⁴⁸ See esp. 28f., where Limburg argues for the allegedly commonplace practice of writing prefaces separately and simply appending them to one work or another. As I say in the Introduction, the 'dis-integrating' approach of scholars like Limburg (cf. Gross (1989)) seems, to me, to be not far away from the traditional view of the text as disorganised and lacking a coherent structure.

philosophical considerations that may be governing what goes on in the work – even where it seems to be strictly observing conventional norms. To me, though, the fact that Seneca does not seem overly concerned to stick rigidly to these norms suggests, all the more strongly, that more is at play here than a simple desire, or propensity, to adhere to literary custom.⁴⁹

4. Philosophical approaches

Of course, none of the above necessarily renders Limburg's thesis false: it could be that Seneca really was just following prevailing literary conventions (albeit somewhat inconsistently), while philosophical considerations took a back seat. However, we should at least be open to the possibility that Seneca, as a philosopher, had reasons for structuring the work in this way that went beyond stylistic considerations. As noted in the Introduction, there have been relatively few attempts to approach the *Natural Questions* from a predominantly philosophical point of view, and fewer still that specifically address the question of the work's form from this perspective.⁵⁰ Nevertheless, the issue has not been entirely without philosophical attention.

4.1 The Stoic framework

The approach of several scholars has been to try to explain the combination of ethics and physics in the *Natural Questions* by referring to the close connection between ethics and physics in Stoic philosophy. One major study that takes this approach is that of Codoñer. For a Stoic, she suggests, there is no radical distinction between ethics and physics. Indeed, both are parts of philosophy as a whole, and as such both aim at the same ultimate end: wisdom – consisting, Codoñer seems to think, of moral wisdom, and knowledge of god (the latter being the ultimate end of physics in particular).⁵¹

⁴⁹ I do not mean to be unduly critical of Limburg's outstandingly well-researched and helpful thesis. Her analysis of each preface and epilogue and, especially, her exhaustive cross-references and comparisons between the *Natural Questions* and other literature from the period is an invaluable tool for the study of the moralising passages. What I take issue with is merely the suggestion that literary convention can fully *explain* a philosophical text like the *Natural Questions*, at anything more than a superficial level.

⁵⁰ Philosophical approaches that pay attention to the ethics-physics problem include: Stahl (1960); (1964); Donini (1979); Codoñer (1989); Scott (1999); Gauly (2004). Several of these are discussed below.

⁵¹ Codoñer (1989), esp. 1803ff. It should be pointed out, however, that many would disagree with Codoñer's characterisation of Stoic wisdom here. Codoñer seems to believe that Stoic wisdom consists of a great deal of *content* – the nature of god, for instance, and perhaps a great deal of ethical theory. However, it is dubious whether this is how the Stoics characterised wisdom. In an article entitled 'What does the wise man know?', Kerferd reviews the evidence for this question and concludes that there is next to no evidence to suggest that the wise person would have to know a great deal of theory. Kerferd concludes (and many have agreed with him) that Stoic wisdom is not so much about content – the "What" – as it is about the "How": a *disposition*, rather than a collection of knowledge or beliefs (Kerferd (1977), esp. 134). This point is discussed in more detail in Chapter 5.

However, it is dubious whether this can satisfactorily explain what we find in the *Natural Questions*. Indeed, by simply subsuming the ethics and physics in the *Natural Questions* under the broader framework of Stoicism, Codoñer and others who take this approach in effect side-step what is most problematic about Seneca's combination of ethics and physics. As we have seen, it is not the mere combination of ethics and physics that is perplexing, but rather the particular ethical and physical themes that Seneca combines, and the way he goes about combining them. In fact, the surprising content of the moralising passages actually poses a serious difficulty for Codoñer's explanation. For if the purpose of the ethical passages is to help us progress towards moral wisdom, then Seneca's decision to focus so heavily on these oddly specific descriptions of vice (rather than, for instance, more general aspects of ethical theory) is surely in need of further explanation.⁵²

Indeed, this is a problem for any approach that tries to solve the issue by appealing to the Stoic claim that ethics and physics are closely connected.⁵³ Part of the problem, as we shall see in greater detail in Chapter 5, is that the nature of this relationship is not altogether clear in Stoicism more generally. However, as discussed at the start of this chapter, whatever view one takes of this relationship, most people would not consider the sort of ethics and physics we get in the *Natural Questions* to be a particularly representative example of how this relationship is supposed to work – precisely because the content of these passages seems so unrelated to the topics of the physical investigation.

4.2 The Platonist framework

This, however, is not the only philosophical approach that has been taken to the problem. Others look not to the Stoic framework, but to that provided by the philosophy of another school: Platonism. As discussed in the Introduction, a long-standing reading of Seneca maintains that he was deeply interested in, and even persuaded by, developments in contemporary Platonism. His awareness of this school is most clearly suggested by the two famous Letters – the 58th and 65th – that discuss Platonic metaphysics. However, it is also evident from the frequent use that Seneca makes of Platonic themes throughout his work – not least in the *Natural Questions*. In this work scholars have drawn particular attention to the recurring motif of separating mind and body (3 pref. 18; 4a pref. 20; 1 pref., *passim*), the

⁵² Codoñer's further suggestion that Seneca is also motivated by the need to justify technical philosophical topics to a Roman audience does not seem to help the matter much either. Again, how does this particular combination of ethics and physics achieve this?

⁵³ This includes Scott (1999). Scott seems unconcerned about the specific types of ethical themes Seneca juxtaposes with the physical topics. In reference book 1, for example, Scott does not appear to perceive any problem with the transition from reflective phenomena to Hostius Quadra's use of mirrors (see esp. 58-9).

suggestion that god is inaccessible to the senses (7.30.3-4) and consists of nothing but reason (1. pref. 14). A number of scholars, therefore, have suspected that the influence of Platonism might be behind some of the work's unusual features.

One notable reading of this kind comes from Donini.⁵⁴ Donini's thesis is that, in his later writings, Seneca experiments with the combination of two worldviews: Stoic and Platonist. At key points in the *Natural Questions*, Donini contends, Seneca seems to adopt a Platonising hierarchy of sciences in which ('worldly') ethics is strictly subordinated to a life of pure contemplation. At other times, Seneca tries to combine this with the Stoic model, attempting to *derive* moral benefit from this theoretical activity – an endeavour which Donini sees as one of the main innovations of the work. The content of the moralising passages, Donini argues, is related to the aetiology through antithesis, in that, through their depictions of counter-natural human behaviour, they represent the opposite pole of 'nature' (which is taken as a stand-in for the higher metaphysical order).⁵⁵ This contempt for the earthly and the human, then, serves to reinforce the new ontological hierarchy that Seneca is trying to introduce.

Donini's interpretation has divided scholars, but it has recently been defended by Gauly.⁵⁶ As well as arguing for further indications within the *Natural Questions* that Seneca is adopting metaphysical dualism, Gauly supplements Donini's interpretation by suggesting that the moralising passages depict an earthly realm that is hopelessly corrupt, to which the only reasonable response is to escape into a life of pure contemplation.⁵⁷

There are, I think, good reasons to think that the Platonising reading of Seneca is mistaken. For one thing, as discussed in the Introduction, the view of Seneca as a Platonising 'eclectic'⁵⁸ has come under increasing scrutiny in recent scholarship. At its heart, the problem with this reading is that it requires us to impose – as one scholar puts it – a completely "unannounced program of eclecticism" on a writer who consistently describes himself as a Stoic.⁵⁹ Indeed, Seneca never explicitly commits himself to dualism (either ontological or

⁵⁴ Donini (1979).

⁵⁵ Implied *op. cit.*, 222: Seneca's new metaphysical system is "merely hinted at with signs". This is Donini's explanation of why Seneca focuses on physics, rather than explicitly on metaphysics.

⁵⁶ Gauly (2004), esp. Ch 4.

⁵⁷ Against Gauly's Platonising reading of the *Natural Questions*, in addition to what follows, it is worth noting that even the Platonists themselves did not suggest that we ought to completely neglect the present world in the way that Gauly describes. Rather, contact with the Forms is supposed to give us the ethical grounding to enable us to live successful lives in the *present* world. On this, see esp. Boys-Stones (*forthcoming*), ch. 17.

⁵⁸ It should be noted, however, Donini explicitly argues against the term 'eclectic' (e.g. Donini (1988a)). Donini believes that Seneca's defection to Platonism is philosophically well-considered. It must be said, though, that this picture seems somewhat at odds with Donini's claim that Seneca is "cheating at cards" – maintaining both Stoic and Platonist worldviews at the same time (*op. cit.*, 232).

⁵⁹ Graver (2012), 84.

psychological); on the contrary, he frequently asserts his Stoic commitments and often argues positively for the Stoic conception of the cosmos.⁶⁰

In general, scholars have begun to see Seneca use of Platonic themes as broadly a part of his rhetorical and/or pedagogical strategy. In a useful study, Reydams-Schils examines many of the most commonly-cited instances of ‘Platonising’ in Seneca’s works – the *Natural Questions* among them – and demonstrates the ways in which Seneca carefully exploits Platonic language to emphasise certain aspects of Stoic theory. For example, Reydams-Schils argues that Seneca’s use of the motif of separating soul from body – one which is prominent in the *Natural Questions* – can be seen to “underscore a genuinely Stoic reorientation in values” – a shift from the body to the mind that is just as pertinent in Stoicism as it is in Platonism. The Platonic language, Reydams-Schils argues, is merely a “propaedeutic device”: a means of conveying Stoic theory in as vivid and compelling way as possible, without implying any departure from Stoic orthodoxy.⁶¹

Indeed, on closer inspection there is nothing that Seneca says in the *Natural Questions* that cannot quite easily be reconciled with mainstream Stoic thought. Consider, for instance, the suggestion in the preface to book 1 that god consists of nothing but reason (1 pref. 14) – one of the most commonly-cited indications of Seneca’s Platonist inclinations in the work. While this might well be something a Platonist could agree with, given the appropriate context, the same also goes for the Stoics. For although ‘god’ can describe a number of things for a Stoic (e.g. the cosmos as a whole; the highest part of the aether; the sun), in his most fundamental form – namely, as the so-called ‘active principle’ – they too believed that god is nothing but reason. This much is made clear by Diogenes Laertius: “They hold that there are two principles in the universe, the active principle and the passive. The passive principle, then, is a substance without quality, i.e. matter, whereas the active is the *reason inherent in this substance, that is God*” (7.134, trans. Hicks, my emphasis). While it might at first seem strange that Seneca would refer to god in this particular aspect, once we consider the broader context of the preface – in which Seneca has been portraying the disembodied soul flying up into the cosmos and realising its relationship with the divine mind – his reason for foregrounding this particular aspect of god become clear: it highlights the fact that both we and god are both quintessentially rational beings. We shall discuss this passage further in later chapters.

⁶⁰ E.g. materialism: *NQ* 2.1-11; *Ep.* 106; 117. Monism: *NQ* 2.3.1. Number of causes: *Ep.* 65.11f. Conflagration (stated, not argued for): *Ep.* 9.16; *NQ* 3.28.7.

⁶¹ Reydams-Schils (2010); see also Inwood (2005b).

Concerning the other most frequently-cited example of Seneca's Platonism in the *Natural Questions* – his suggestion that “He who manages all this [sc. the cosmos], who created it, who laid the foundations for it all and surrounded himself with it, and who is the greater and better part of his creation, he eludes our sight and must be perceived by thought” (7.30.3) – we need not even look to the wider context for an explanation. For Seneca clearly says here that the god he is talking about is a *part* (*pars*) of his creation – something that no Platonist could accept, though something that is wholly in line with standard Stoic cosmology. As we shall see in Chapter 3, there is also nothing unusual about the suggestion that god (*qua* the reason ruling the cosmos) is inaccessible to vision. Furthermore, as Reydams-Schils points out, near the beginning of book 2 Seneca describes *air* in strikingly similar terms, including it among the things that, though they “elude our senses but are grasped by reason”, nevertheless possess “bodily unity” (2.2.3).⁶²

Altogether, then, it seems unlikely that imposing the Platonist worldview on the *Natural Questions* can be the solution to the puzzling features of the work. At the same time, I do not think we can, or should, ignore the prominence this ‘Platonising’ aspect of the work. Even if these passages turn out not to betray any genuine shift towards Platonism in Seneca's philosophical outlook, it cannot be denied that some of these passages seem to be *alluding* to Plato. In particular, while the motif of separating body and soul might be perfectly reconcilable with Stoic anthropology, one cannot deny the distinctive Platonic character of this description. The same goes for the image of the soul flying up into the heavens in the preface to book 1. It is of particular note, moreover, that these allusions congregate with the greatest concentration at key points in the work – namely, in the programmatic prefaces to books 3 and 1. Their presence here strongly suggests that we should pay close attention to them.

As mentioned in the Introduction, once we do reject the conciliatory reading of Seneca vis-à-vis Platonism, the prevalence – and textual prominence – of these allusions to Plato raises difficult questions. While Platonic imagery is certainly powerful, it is not as though Seneca could not have used other means to express himself. Nor does the suggestion that this is merely a matter of personal artistic taste seem fully to justify the extensive use Seneca makes of these themes or their location at key points in the work. Indeed, considering the prominent position of these allusions, it could be that they were intended to play a role in contextualising what is going on in the work. It may be – and this is an idea that I would like

⁶² Reydams-Schils (2010) 208.

to explore – that these allusions are vital clues pointing us towards the *dialectical* context in which the *Natural Questions* should be read.

4.3. A Stoic-Platonist dialectical framework?

Why, though, should we think that allusions to Plato should be taken as indicators of a dialectical engagement with Platonism? One reason is that this manner of simply alluding to, rather than explicitly naming, one's rivals seems to have been in common usage in the post-Hellenistic period – at least among Platonists. Scholars had long noted the frequent use that Platonists make of Stoic terminology, and for a long time this was seen as an example of the same sort of mindless eclecticism that is perceived in the Stoics' use of Platonising themes. More recently, however, a number of scholars have begun to read these allusions and borrowings not as 'eclectic' or conciliatory, but instead as markers of dialectical engagement.

One strategy that seems to have been quite widespread is for Platonists to import selected terminology from the Stoics, only to show the rival theory can be made sense of only when it is supplemented by Platonic metaphysics. One example of this strategy, pointed out by several scholars, concerns the Platonists' use of the Stoic theory of 'common conceptions'. This theory, in short, holds that all humans are naturally predisposed to form a certain set of basic concepts, which serve ultimately as a means of epistemological grounding.⁶³ The Platonists for their part could claim that – yes indeed – we do have a set of concepts that serve as epistemological grounding; but the only way such concepts could be made to serve this function reliably is if they were derived from some stable source of knowledge – which is to say the Forms. This strategy has sometimes been referred to as one of 'subordination': the original theory is 'appropriated', but then subsequently *subordinated* within the recipient system.⁶⁴

Again, what is notable here is that the adversaries are never specifically named; the Platonist, Alcinoüs in this case, merely *alludes* to the rival theory, and then proceeds to make his argument. As to why he should adopt such a strategy, we cannot be sure. However, a plausible explanation is simply that these authors expected a philosophically engaged reader – one who is familiar with contemporary currents of philosophical debate – to be aware of the significance of these allusions. If true, this highlights the importance for us, as modern

⁶³ Although, against the usefulness of Stoic preconceptions for these purposes, see Chapter 2.

⁶⁴ Such a strategy is detected in Alcinoüs *Did.* 4 by Boys-Stones (2005); Bonazzi (2014); (2016). For a similar strategy employed by the anonymous Platonist commentator on the *Theaetetus*, see Bonazzi (2008). See also, now, various relevant chapters in Engberg-Pedersen (2017).

readers, to pay close attention both to the allusions themselves, and to the wider philosophical context that such allusions are referring to.

But what reason have we to think that *Seneca* may be confronting his rivals in this way? Indirect support comes from the fact, highlighted in the Introduction, that Seneca is one of the few Stoics in this period who does unequivocally attack Platonism. In his 65th Letter, Seneca asks Lucilius to adjudicate on a conversation between him and unnamed ‘friends’⁶⁵ concerning the nature of causes, prompting a discussion of Aristotelian and Platonist ontology. Together with its companion Letter – the 58th – Letter 65 has often been taken as central evidence for the Platonising reading of Seneca; but this ignores the fact that Seneca explicitly expresses his preference for the simpler Stoic model of just one ultimate cause – divine reason. In fact, several scholars have argued that that the Letter *as a whole* should be considered a polemic against Platonic metaphysics.⁶⁶ Throughout the Letter, it has been suggested, Seneca endeavours to illustrate an almost comic ‘proliferation of causes’ on the part of the Aristotelians and Platonists. Having initially introduced just three Aristotelian causes – material, ‘craftsman’ (sc. efficient), and formal – Seneca then claims that Aristotle “adds” (*accedit*) a fourth: the final cause. Plato is subsequently said to add a fifth (*quintam...adicit*) – and maybe even a *sixth* at 65.14. Seneca suggests that this veritable “swarm of causes” (*turba causarum*) is merely the result of a confusion on Plato’s part between ‘cause’ properly speaking, and mere necessary conditions for causation. In Ep. 65, then, we appear to have a precedent for Seneca writing polemically against the Platonists.

Considering Seneca’s capacity to be hostile to Platonism, and considering the possibility that mere allusions to one’s rivals can, in this period, form the basis of a dialectical engagement, the interesting possibility arises that the *Natural Questions* itself has a dialectical dimension. Indeed, the fact that the allusions to Plato in the *Natural Questions* are concentrated at important points in the work might indicate that the Platonist context is in fact *key* to understanding what is going on in the work as a whole. If this is true, then it would not be unreasonable to think that certain unusual features of the work – features, that is, such as the moralising passages – might in turn be the result of the dialectical aims of the work.

*

⁶⁵ This reference to live conversation adds support to the idea that Seneca was engaged with *contemporary* Platonism, since these friends may well have been genuine Platonist associates of Seneca (a reading supported, e.g., by Sedley (2005), 135f.). Whatever we make of the fictionality of the *Letters*, there seems no reason not to take Seneca’s reference to live conversation with such people at face value, as Inwood (2007a, 151) suggests.

⁶⁶ Esp. Boys-Stones (2014) – who also sees the narrative progression from Ep. 58 to Ep. 65 as playing a role in this polemic. On the ‘proliferation’ strategy see also Inwood (2007b), esp. 159. Cf., though, Sedley (2005).

If all of this makes a dialectical reading of the *Natural Questions* a hypothetical possibility, it certainly does not yet show the text was, in fact, engaged in debate with Platonism. To establish this, we need first to consider whether there are any ongoing debates which might conceivably prove relevant to the *Natural Questions*. In the following chapter I would like to draw attention to one debate in particular, one concerning a key issue in ethical epistemology: how to form a well-grounded concept of ‘the good’. Because the immediate relevance of this debate to the *Natural Questions* will be far from clear, the first part of the following chapter will be dedicated to outlining the intellectual background of this debate – a task which will involve temporarily setting the *Natural Questions* aside. In the final part of the chapter, though, we shall return to the *Natural Questions* to see how various important statements in the work seem, in fact, to be speaking directly to this debate. As subsequent chapters will argue, this debate turns out to be crucial for understanding what is going on in this text – including the presence of the moralising passages.

The Dialectical Context: A Debate about Grounding the Good

1. Introduction: Platonism and the ‘crisis’ of materialism

The re-emergence of Platonism, beginning as early as the first century BC, was a pivotal moment in the history of Western philosophy.¹ Within the space of just a few decades Platonism redefined the parameters of philosophical debate. Platonism, furthermore, would go on challenge the philosophically dominant Stoics so successfully that, by the end of the third century,² Stoicism had ceased to exist as a live philosophical system. Surprisingly little is known about the origins of this movement – precisely when it first emerged, for instance, or who its founder was.³ But what seems relatively clear is that Platonism arose – and arose *now* – as a conscious reaction against the philosophy of the Hellenistic schools. In particular, it was a reaction against the *materialism* that had, in the wake of Plato, become the shared theoretical assumption of Hellenistic philosophy. In the opinion of Platonists, this retreat from Plato’s theory of transcendent first principles had been a grave mistake. Indeed, it was precisely this that had led to the unending disputes that had blighted Hellenistic philosophy. By contrast, Plato had represented a beacon of profound unity in the philosophical tradition – achieving this consensus, the Platonists believed, precisely by placing transcendent Forms at the heart of his system.⁴ The only way forward, then, was to return to Plato, and a reading of Plato which took the Forms as the cornerstone of his philosophy.⁵

¹ Whether the appearance of Platonism in this period should be regarded as a *re-emergence* – i.e. the emergence of a philosophy that had lain dormant since the Academy’s Sceptical turn – is debated. Some hold that Platonism had never really gone away, but was merely sidelined by the dominant Academic philosophy of the day. See Boys-Stones (*forthcoming*), Introduction.

² Though perhaps this date could be pushed back to the *fourth* century, depending on what we make of the Stoicism of Rufius Festus Avienus – see Introduction.

³ Antiochus of Ascalon has sometimes been seen as the first Platonist because of his explicit return to a dogmatic reading of Plato. However, many scholars do not think that Antiochus adhered to what we shall see is the central commitment of all other Platonists: the existence of transcendent first principles – see Dillon (1977), 91-6; Barnes (1989); Boys-Stones (2012). Thus even if Antiochus contributed to conditions that made the (re)emergence of Platonism more favourable (i.e., by advocating a dogmatic reading of Plato) he perhaps cannot himself be considered a Platonist, properly speaking (cf., however, Bonazzi (2009), who seems to regard him as such). For good summaries of Middle Platonism, including the question of its founder, see Zambon (2006); Bonazzi (2014).

⁴ See esp. Atticus Fr. 1, *ap.* Eusebius, *Praep. ev.* 11.2.1-4. On the importance of this perception of Plato as, historically, a beacon of unity, and the Platonist use of this historical narrative as a kind of ‘meta-philosophy’, see Boys-Stones (*forthcoming*), ch. 1.

⁵ Indeed, for it is clear that people had been *reading* Plato throughout the preceding period. However, as incredible as it may seem to us, these readers were able to read the dialogues without feeling the need to foreground this aspect of Plato’s philosophy. The Sceptical Academy had, of course, done this for centuries. However, even as Platonism was re-emerging onto the philosophical scene, such a reading was still viable: the remaining fragment of Cicero’s translation of the *Timaeus*, for instance, seems totally unaware of transcendent Forms (on which see Lévy (2003)).

Platonism thus became marked by an aggressive campaign to show the inadequacies of materialism. Their astonishing success in this respect led not only to the demise of Stoicism but of materialist philosophy quite generally. Such schools were gradually but ineluctably squeezed out by those advocating transcendence – first the Platonists themselves, soon to be followed by the emergent Christian movement.

The scale of this success has sometimes led scholars to regard the post-Hellenistic period as a kind of ‘crisis of materialism’. And, when we consider the broad trend across the period as a whole, such an impression does not seem entirely unfounded. At the same time, an element of caution is required here. Just because materialism seems to have been, objectively speaking, in a ‘crisis’ does not necessarily mean that individual materialist thinkers believed their systems to be in bad shape. Indeed, scholars have sometimes taken the broad move away from materialism in this period to support the narrative of eclecticism: perceiving problems with materialism, philosophers such as Seneca began to incorporate aspects of Platonic metaphysics within their own systems.⁶ As I have already argued, this does not seem to have been the case; not only does Seneca often argue positively for the materialist underpinnings of Stoic philosophy but, in Letter 65, even does so in direct opposition to the Platonist alternative. Therefore, even if the advance of Platonism was a cause of concern for philosophers such as Seneca (indeed, the very fact that Seneca does respond suggests that it might have been perceived as such) we need not assume that he was prepared to make concessions. Rather, with Letter 65 in mind, we should be open to ways in which Seneca may have attempted to resist the anti-materialism of the Platonists.

To detect any such attempts, however, we first need to better understand the nature of the debate. What, for instance, *were* the key issues facing the Stoics in this period? In this chapter I would like to concentrate on one debate in particular, one that centres around the Stoic account of the highest good. For the Platonists, of course, the Forms were just as significant in ethics as they were in all other areas of philosophy – indeed, issues tended to radiate out into all areas precisely because the Forms were placed at the heart of their system. One significant role that the Forms play in ethics is providing a stable grounding for our knowledge of ‘the good’. All philosophical schools agree that our lives must be organised around some understanding of the good; but the Platonists argue that, without the sort of stable grounding that the Forms provide, ethics as such falls apart. At the heart of the problem

⁶ E.g., Natali (1992), 494.

for the Stoics, Platonists claim, is their empiricism. Empirical means, they argue, simply cannot ground the claims that the Stoics want to make in ethics.

In the first part of this chapter the *Natural Questions* will not be the focus of our attention. However, in the final section I shall come back to it to argue that this debate forms important context for our reading of that text. As we shall see, several important programmatic statements in the *Natural Questions* seem to speak directly to this debate. What is more, Seneca seems to be strategically alluding to Plato at precisely the points in the text at which these issues are being aired – intended, I believe, to signpost his engagement with the Platonists over this matter. The analysis in this chapter will thus lay the groundwork for the two subsequent chapters, in which I shall argue that the work, including its unusual form, can be made sense of by reading it within this dialectical context.

Throughout this and subsequent chapters I shall regularly be referring to a group called ‘the Platonists’ – a convenient tag that nevertheless requires a degree of qualification. It has been pointed out before that, due to significant variations in the views of Platonist thinkers in this period, it might be more accurate to refer to Platonist philosophy as a collection of Platonisms.⁷ My references to ‘the’ Platonists, therefore, might give the undue impression of a level of doctrinal unity among these thinkers than ever actually existed. Nevertheless, this shorthand is permissible, I think, at least given the specific debate with which we shall be concerned. For, whether or not all Platonists would have formulated the specific arguments against the Stoic position that will be explored in this chapter, it is safe to say that *all* Platonists would have objected to the Stoic’s empirically-based account of the good. Whatever else Platonists disagreed upon, one thing on which they would have been unified is that a well-grounded concept of the good must be based on a grasp of the intelligible realm (i.e. the Form of the Good). As noted above, the belief in transcendent Forms was the starting point and cornerstone of the Platonist revival, and thus any epistemological or ethical theories that made no reference to these entities would have been judged equally inadequate by all Platonists.

Another issue to note is chronology. It is my contention that the debate explored in this chapter forms crucial context for our understanding of the *Natural Questions*. However, while every effort has been made to chose Platonist evidence from close to Seneca’s time, it will be noted that not all of the Platonists referred to were contemporary with him; several, indeed, post-date him. Accordingly, it is frequently unlikely or impossible that Seneca

⁷ E.g. Zambon (2006), 561.

actually read any of the writings of the specific Platonists discussed in this chapter. I shall, however, be running on the assumption that the ideas expressed by these authors reflect, at least, the *sorts* of debates that were going on throughout this period. This assumption is justified by two considerations. First, as we shall see, Platonists at both ends of the chronological spectrum – from the anonymous commentator on the *Theaetetus* (perhaps as early as 1st century BC)⁸ to Numenius (active mid-late 2nd century AD)⁹ – were making arguments pertinent to the debate explored in this chapter. This clearly suggests that the relevant issues were longstanding and widely known. Second, as already noted, I shall argue that in the *Natural Questions* (and in other works, such as the 120th Letter) Seneca speaks in terms that clearly indicate an awareness of the central issues of the debate. Whether Seneca actually read the work of *these* Platonists, then, is not important. He seems nevertheless to be aware of a problem that was apparently being debated widely throughout the post-Hellenistic period.

2. Empiricism and ‘the good’

Materialists like the Stoics generally adopt forms of empiricism, building their accounts of knowledge around the experience that agents gain (in the first instance) through the senses. One problem with this, according to the Platonists, is that the material world is a peculiarly unsuitable foundation for knowledge. In part this is down to the Platonists’ strong metaphysical claim that the physical world is in a kind of ‘flux’ – as most memorably described in Plato’s *Theaetetus*.¹⁰ While this special claim is unlikely to worry the Stoics much, there are other reasons why empirical experience is a problematic basis for knowledge:

Learning cannot arise in any other way than by remembering what was formerly known. If we had in fact to start from particulars in forming our conception of common qualities, how could we ever traverse the infinite series of particulars, or alternatively how could we form such a conception on the basis of a small number (for we could be deceived, as for instance if we came to the conclusion that only that which breathed was an animal); or how could concepts have the dominant role that they do have? So we derive our thoughts through recollection, on the basis of small sparks, under the stimulus of certain particular impressions remembering what we knew long ago, but suffered forgetfulness of at the time of our embodiment. (Alcinous, *Didaskalikos* 25.3, trans. Dillon)

⁸ On the early dating, and the possible identification of Anon. with Eudorus, see Tarrant (1983). The early dating was followed by Sedley (in Bastianini and Sedley (1995)). Dillon (1976, 270-1), on the other hand, considers an identification with Albinus, or at least with an associate of his. For further discussion, and measured criticism of the early dating, see Opsomer (1998), 34-6.

⁹ On Numenius’ dating, see Dillon (1976), 362.

¹⁰ *Tht.* 181c ff.

Alcinous draws attention to the fact that, in order to be able to navigate the world successfully, we need to build up a functional set of universal concepts (those that encode “common qualities”).¹¹ A sufficiently large set of these is necessary for us to be able to make sense of our experience, allowing us to understand the manifold objects of sense-perception in terms of these ‘common qualities’. What Alcinous argues, though, is that the sheer *diversity* of empirical experience represents a serious obstacle to the formation of these concepts in the first place. Posing a dilemma, Alcinous argues, on the one hand, that to form a reliable concept on the basis of empirical experience we would have to review an infinite series of particulars – only thus could we be sure that the concept accurately reflected the world. This, however, is clearly not practicable. Accordingly, empiricists are forced onto the other horn of the dilemma, into a situation in which these ‘universal’ concepts are formed on the basis of only a limited number of experiences. But this renders them manifestly defeasible – and us, therefore, vulnerable to error. The Platonists avoid this problem, Alcinous maintains, by holding that these concepts stem from our recollection of Forms, our prenatal experience of which accounts for a non-partial and well-*grounded* appreciation of these common qualities.¹²

In fact, this problem proves especially troublesome for the Stoics, thanks to their nominalism. This means that we technically *never* experience precisely the same quality twice: each thing just is what it individually is.¹³ What this also means, of course, is that the Stoics technically deny the very existence of ‘common qualities’; but this is no escape, since it is clear that the Stoics realised the cognitive necessity for us to be able to categorise the diverse objects of our experience. Thus, although they deny that common qualities exist in any ultimate sense, the Stoics nevertheless make room for these items among our cognitive apparatus, describing them as a kind of mental fiction that we use to make sense of the world.¹⁴ And, because we find ourselves using these fictions regularly (the “dominant role” Alcinous alludes to) the Stoics would seem to have a job to do to explain how and why they are to be relied upon.

¹¹ In the following, I adhere to language used by Brittain (2005, 164 n. 1) to distinguish between the various items in Stoic epistemology: ‘concept’ is the general term, of which conceptions (ἔννοιαι) and preconceptions/common conception (πρόληψεις/κοιναι ἔννοιαι) are species. On the identity of the latter terms, along with what are sometimes called ‘natural (ἔμφυτος) conceptions’, see Sandbach (1930); Brittain (2005); and, with further distinctions, Dyson (2009), 60ff.

¹² For discussion of the problems of empiricism and concept formation see Schrenk (1991); Boys-Stones (2005), esp. 216-222; (2014).

¹³ Cicero, *Acad.* 2.84-5.

¹⁴ For this reason, Long and Sedley (1987, 182) argue that the Stoics might be better described as ‘conceptualists’, rather than nominalists, since they believe universals do exist, albeit as mind-dependent entities. For discussion of the status of universals in Stoicism, see Sedley (1985).

Or do they? While empirical concepts formed through induction might not be *absolutely* reliable, this need not mean that they are not adequate to allow us to navigate the world in a reasonably successful way. To take Alcinous' example of 'living thing': while our concept of a living thing as something that breathes might lead us astray in some circumstances,¹⁵ a concept articulated along these lines will nevertheless allow us, in the vast majority of cases, to identify whether something is a living thing or not; and in any case, if and when we *do* encounter something which, on reflection, ought probably to be considered living despite not breathing, there is nothing to stop us from refining the concept to accommodate the exception. Indeed, this seems precisely how the Stoics envisaged the articulation of our concepts to proceed.¹⁶

What is more, many Platonists seem basically to have thought this themselves, at least so far as many of our concepts are concerned. In *Platonic* scholarship, by way of contrast, there is a long-standing debate as to whether *all* concepts derive from the recollection of Forms (even when the agent does not realise it), or if, on the other hand, the recollection of Forms only begins if and when the agent receives formal philosophical instruction.¹⁷ Where Platonists are concerned, however, most seem to have opted for the latter model.¹⁸ The primary reason for their doing so is that many of the things we encounter in the course of our experience – artefacts of human technology in particular – are not the sorts of things that one would expect to correspond to a Form.¹⁹ But what this means is that the vast majority of people – who never even begin the formal process of recollection – go through life relying on the same kind of empirical apparatus proposed by the Stoics.

What is more, the Platonists would also likely accept that in the majority of cases this is all people *need* to lead a reasonably successful life – or at least, this is the best that many people can ever hope for. This is because, in Platonist thought, most people are just not cut out to become philosophers. Most are thought simply to lack the natural ability – the

¹⁵ The definition of a living thing as that which breathes is criticised by Aristotle at *De an.* 404a10 and *De resp.* 470b-471b.

¹⁶ Cicero, *Acad.* 2.20, where the empirical process of articulating concepts seems to happen through successive stages of refinement and enrichment. There seems no reason why this process could not go on indefinitely.

¹⁷ Scott (1987) first famously stirred up the controversy regarding Plato, himself favouring the second account, in which the Forms only come into play once the formal process of recollection begins.

¹⁸ See, for example, Plutarch Fr. 215d. At first glance Alcinous in the quoted passage above may seem to be adhering to the other model, though on this see Boys-Stones (*forthcoming*, ch. 13), who contends that Alcinous allows empirical concepts, with the point precisely being that such concepts could not be *well-grounded*.

¹⁹ Although Plato notoriously refers to Forms of beds and tables at *Republic* 596a-c, by this period, at least, most Platonists thought that Forms were restricted to so-called 'natural kinds' – see e.g. Alcinous *Did.* 9.2; cf. Apuleius *De dog. Plat.* 1.6 [192-3].

memory, intelligence – as well as the appropriate upbringing.²⁰ Indeed, even among those who *do* start down this path, very few ever get to the stage of actually cognising the Forms. Such people might only be fitted for more practical kinds of lives; and for these kinds of lives, the empirical framework (defeasible as it is) might serve well enough.

But the point is – and this is where it becomes problematic for the Stoics – that this framework is not sufficient for the *best* kind of life, the life of the utmost happiness; but this is the kind of life the Stoics are selling in their ethics. Such a life, it was thought, must be organised around some stable notion of the good in human life. While in the majority of cases a reasonably successful yet ultimately defeasible concept might serve us perfectly well, when it comes to the good, there is no room for this kind of uncertainty. And with this, the Stoics would have to agree:

...if a man is confident of the goods that he has, what does he lack for living happily? Or how can someone who lacks confidence be happy?...no one can be happy without a good which is secure, stable and lasting...The man who would fear losing any of these things [i.e. goods] cannot be happy. We want the happy man to be safe, impregnable, fenced and fortified, so that he is not just largely unafraid, but completely. (Cicero *Tusculan Disputations* 5.40-1, trans. Long and Sedley)²¹

Admittedly the discussion here is not concerned with the question of our *epistemological* certainty over the nature of the good, but rather the practical insecurity of so-called external goods. However, it is reasonable to assume that the Stoics would be similarly worried if they could not be *sure* that virtue, as they conceive it, is the ultimate and enduring good of a human being.

In fact, though, the problem is made worse for the Stoics by a number of extremely strong claims that they make for both goodness and happiness. For one thing, it is clear that the Stoics are no relativists. Far from it, the Stoics clearly believed that the claims they made for the good, and for their ethics in general, were completely *absolute*:

They say that justice, and also law and right reason, exist by nature, and not by convention – as Chrysippus says in his *On the Fine*. (Diogenes Laertius, *Lives* 7.128, my trans.)

And it is not only justice and injustice that are distinguished naturally, but in general all honourable and disgraceful acts. For nature has given us shared conceptions and has so established them in our minds that honourable things are classed with virtue, disgraceful ones with vice. To think that these

²⁰ The *locus classicus* for this being *Republic* 535a ff. This contrasts strongly with the Stoics, who maintain that virtue and happiness is open to everyone – see Seneca *Ben.* 3.18.2. In fact, though, this merely adds a further problem for the Stoics – not merely do they have to explain how some exceptional and lucky people can obtain this well-grounded concept of the good, but how it is theoretically available to everyone.

²¹ Cf. Epictetus 2.11.19-21; Seneca, *Ep.* 120.20-2.

things are a matter of opinion, not fixed in nature, is the mark of a madman...Whatever good thing deserves praise must necessarily have in itself something that is to be praised; the good itself is not a matter of opinion but of nature. If that were not the case, then men would be happy by opinion – and nothing dumber than that could possibly be said. Therefore, since good and bad are judged by nature, and they are fundamental concepts of nature, then certainly honourable and dishonourable things must be judged in a similar way and referred to nature. (Cicero *Laws* 1.44-6, trans. Zetzel)²²

No mere matter of opinion, the character of the good – and justice and all the virtues – is set down in nature itself. This means that, according to the Stoics, there is *just one* way for a human to be good. If the Platonists are right, though, how can the Stoics be so sure?

But the problem is made worse still by the extremely high standards that the Stoics set for happiness and the good life. The good, they claim, is not only absolute in its nature, but also in degree.²³ According to the Stoics, then, any insecurity that one has about the good leads not simply to a less-than-happy life (as it might for the Platonists and Peripatetics, for instance) but to a life that lacks happiness *completely*. If empiricism cannot provide a well-grounded, reliable concept of the good, therefore, the entire eudaimonistic frame of the Stoics' ethical project is placed in serious jeopardy.

One consideration that might seem to help the Stoics here is their theory of so-called 'preconceptions' (variously also referred to as 'common conceptions' and also 'natural conceptions').²⁴ Indeed, above, Cicero alludes to this theory as part of his argument for regarding the good as absolute. According to this theory, all human beings are naturally predisposed to form a certain set of concepts, apparently seen as forming the core of an agent's rationality.²⁵ Significantly, the good, and a number of other central ethical concepts, were held to be among these.²⁶ This set of concepts is said to be formed in the course of the agent's development *before* the onset of reason, which is important because it means that they form *before* the corruption of rationality sets in (which happens in most, if not all cases). What this means, then, is that all human beings have a quasi-innate concept of 'good' that is in some sense guaranteed by nature.

²² The repeated references to *nature* as the epistemological basis of ethics, as well as the correspondences with other Stoic arguments (e.g. the peculiar character of the good, cf. *Fin.* 3.33-4) suggest to me Cicero is following the Stoics here.

²³ Cicero, *Fin.* 3.33; D. L. 7.101.

²⁴ See n. 11, above.

²⁵ For a seminal account of Stoic reason, and the constitutive role of preconceptions therein, see Frede (1994). See also Brittain (2001).

²⁶ S. E., *M.* 11.22. Cf. D. L. 7.53, who says that we conceive of the good and the just "naturally" (φυσικῶς), and Plutarch *Sto. rep.* 1041E, who cites Chrysippus as saying that the theory of goods and evils coincides with our "inborn preconceptions" (ἐμφύτων...προλήψεων). For a list of all the concepts described as being among our common conceptions/preconceptions in the evidence, see Brittain (2005), 171 n. 29.

If all human beings are simply assured to form this preconception of the good, it might seem that these issues to do with empirical formation fall by the wayside. Indeed, one fragment of Plutarch describes the Stoic theory of ‘natural conceptions’ as their counterpart to Platonic Recollection.²⁷ However, to push this parallel too far would be a mistake.²⁸ Despite what has sometimes been thought, Stoic preconceptions do not appear to amount to a form of innatism, properly speaking.²⁹ Indeed, there are good philosophical reasons why the Stoics wanted to avoid this position. If *all* human beings came into adulthood with a fully-articulated concept of the good, they would then have to explain why the vast majority of people in fact end up having the wrong idea about what the good *is*. Preconceptions therefore cannot constitute an understanding of what the term ‘good’ actually *means*. While the possession of the preconception might allow us to refer to things *as* good, considerable cognitive work seems necessary to arrive at an articulated understanding of the good³⁰:

²⁷ Plutarch Fr. 215F Sandbach.

²⁸ Indeed, we must pay attention to the dialectical context in which this comment from Plutarch occurs. Plutarch is trying to show that the Stoics (and other empiricists) cannot solve ‘Meno’s Paradox’. The Platonists of course solve the problem with recollection. Plutarch then tries to show that the nearest Stoic equivalent to this theory cannot do the job. This does not mean, though, that the Stoics themselves believed the theories to be parallel to each other.

²⁹ In a well-known article, Sandbach (1930) argues against Bonhöffer’s (1890) innatist reading of Stoic preconceptions – at least when it comes to the early Stoa. More recently, Jackson-McCabe has defended a form of innatism, albeit a kind of ‘dispositional innatism’, in which all human have an innate *tendency* to form certain concepts. Hadot (2014, 9) attributes an out-and-out form of innatism to later Stoics such as Epictetus, though her analysis of the earlier Stoic theory also places a considerable emphasis on innate tendencies.

³⁰ Precisely what these preconceptions are, or consist of, and how they are supposed to function in Stoic epistemology, is a difficult problem and a matter of some controversy. Some scholars hold that the preconception is an indistinct version of a conception (i.e. an *ἔννοια* – a fully articulated concept); see. e.g. Schofield (1980); Brittain (2005); Vogt (2008a). Thus Vogt (2008a) argues that a preconception has the propositional content ‘the good benefits’. However, as Menn (2008) argues in response – rightly in my opinion – the concept of the good that Vogt appears to have in mind is not a preconception, as she believes, but the “scientific concept” of the good – that is, the good articulated *as* such and such. As I take it – and this is implicit in the passage of Epictetus below, I think – the preconception of the good is basically ‘atomic’, without any particular content, allowing us little more than the ability to use the term ‘good’. Our task is then to learn to ‘apply’ this concept of goodness to the correct instances – as Epictetus suggests (and this is where most people go wrong: applying ‘good’ to things like pleasure.) Support for this reading comes first from a well-known passage of Aetius (4.10-11), where he gives an account of the formation of the concept of ‘white’. Here the concept we end up with is not of white *as* such and such, but rather simply ‘white’. Further support comes from Cicero *ND* 2.12-13, where he says that, although everyone has an “an innate conviction that gods exist, as if engraved on their minds (*omnibus enim innatum est et in animo quasi insculptum esse deos*)”, people nevertheless disagree on what precisely the gods *are*. Dyson (2009, esp. 60-1) seems to be of a similar opinion, saying that the ‘content’ of the preconception as such is completely “inchoate” (although I disagree with his suggestion that ‘common conceptions’ differ in this respect). One potential problem with my reading relates to the criterial role that preconceptions are supposed to play; for if they are without content, how can they serve such a role? The first thing to say against such a concern is that, even on the ‘fuzzy conception’ reading, there are problems with their criterial role: if my preconception of the good amounts to ‘the good is benefit’, how does this help me to determine what *truly* benefits – i.e. what the good truly is? Indeed, as Menn points out (*op. cit.*, 177) benefit is just as problematic a concept as the good itself. I take preconceptions to be criterial in at least one of two senses. First, the fact that we all share a concept of the good tells us that there is some ‘good’ out there to be grasped (cf. Dyson (2009, 37). This at once prevents us falling into the Epicurean error of simply *reducing* good to some other quality: pleasure; and the Sceptical error of just giving up the search completely.

...who among us enters the world without having an innate conception (ἔμφυτον ἔννοιαν) of what is good and bad, honourable and base, appropriate and inappropriate, and of happiness, and of what is proper for us and falls to our lot, and of what we ought to do and ought not to do? And so it comes about that all of us make use of these terms, and try to apply (ἐφαρμόζειν) our preconceptions to individual cases. ‘He acted well, he did as he ought or ought not to have done; he has been unfortunate, or was fortunate; he is unjust, or is just’; who among us fails to use such expressions? Who defers the use of them until he has been properly instructed, as with those who are ignorant about lines or musical notes? The reason is that, in this area, we come into the world ready-instructed, as it were, to some degree by nature, and starting from that, we go on to add our personal opinion. ‘But why is it’, someone says, ‘that I don’t know what is right or wrong? Is it that I have no preconception in this regard?’ No, you do have one. ‘Is it that I fail to apply (ἐφαρμόζω) it to particular cases?’ No, you do apply it. ‘So I don’t apply (ἐφαρμόζω) it properly?’ The whole question turns on that, and it is here that opinion enters in. For people start from these generally acknowledged principles, but then get involved in disputes because they fail to apply (ἐφαρμογής) them in an appropriate way to particular cases. If, in addition to these general principles, they also possessed the knowledge that is required to apply them correctly, what could keep them from being perfect?

(Epictetus *Discourses* 2.11.3-9, trans. Hard, slightly modified)

Epictetus here acknowledges that we have a natural propensity to *use* terms such as ‘good’, ‘honourable’, and the like; it is precisely our ἔμφυτον ἔννοιαν of such things that allows us to do so. However, it is also clear that our doing so does not necessarily imply an understanding of the true meaning of these terms – what they should be ‘applied’ to (ἐφαρμόζειν, lit. ‘fit together with’), as Epictetus puts it. Indeed, as Epictetus says, most people fail in this respect, coming to ‘apply’ their preconception to improper instances. As agents, then, our task is to learn to ‘apply’ our preconception of the good to the correct instances.

But what is significant – and here we see the reason why the theory of preconceptions does not help the Stoics a great deal – is that the way we learn to come to ‘apply’ these preconceptions correctly is itself an *empirical* process. We see this in Epictetus’ subsequent description of the process by which we learn to refine our application of the term:

Second, I am sympathetic to the idea proposed by Long (1977, 127-8, although cf. Schofield (1980), 295), that the preconception works *in tandem* with the other (much more widely cited) Stoic criterion of truth: the ‘cognitive impression’. According to this theory, while the preconception allows us to recognise (e.g.) ‘goodness’ in the world *at all*, it is the cognitive impression that assures us that the thing we are perceiving is in fact good (although, as we shall see, the Stoics have a problem with explaining how we ever *get* a clear perception of the good). Indeed, it is worth noting that when Chrysippus says that preconceptions are criterial, he says that they are so *along with* sense-perception: “And Chrysippus, at variance with himself, says in the first of his books *On reason* that sense-perception and preconception are the criteria” (D. L. 7.54). Overall, I see the task of a Stoic agent not as unpacking inchoate concepts (akin to Platonic recollection), but rather *articulating* our set of natural concepts in the correct way: applying or joining them up with the right instances. Indeed, this is exactly what we find Epictetus and Seneca trying to do (see below).

...we can judge particular cases through the application of an articulated system of preconceptions (διηρθρωμέναις ταῖς προλήψει). What is the subject of our present enquiry? ‘Pleasure.’ Submit it to the standard, put it on the scales. For something to be good, must it be something that we can properly place confidence and trust in? ‘Indeed it must.’ Can we properly place confidence, then, in something that is unstable? ‘No.’ Is pleasure stable? ‘No, it isn’t.’ Away with it, then; take it out of the scales, and drive it away from the realm of good things. But if your sight is none too keen and one set of scales isn’t enough for you, bring another. Is the good something that can properly inspire us with pride? ‘It is indeed.’ Is the pleasure of the moment, then, something that can properly inspire us with pride?... (Epictetus *Discourses* 2.11.19-22, trans. Hard, modified)

The process of articulating preconceptions happens *in reference* to empirical experience. We refer our experience of (e.g.) pleasure to a nexus of ideas that we have built up around the good:³¹ that it is something to be relied upon; that it should be a source of pride. Because pleasure does not cohere with these, we discard it; and presumably we then go on to test out other candidates from within our experience until we eventually arrive at something that *does* fit these criteria. It is seemingly through this kind of trial and error process that we eventually come to articulate our preconception of the good in the correct way. Taking the fact that we do all *use* the term ‘good’ as a starting point – as proof, for instance, that there is some good ‘out there’ to be sought – we then use our experience of pleasure and the rest to gradually refine our application of the term.

But this turns out to be problematic for the Stoics. For, so the Platonists argue, it is unlikely that a Stoic agent will ever *encounter* ‘goodness’ in a clear enough way to facilitate this process of articulation. The problem is gestured towards by Numenius:

We can apprehend bodies by induction from similar things and from the distinctive marks shared by things that are juxtaposed. But there is no way of apprehending the good from juxtaposition, or from some perceptible similarity... if someone, intent on objects of perception, should imagine the good flying towards him, and preen himself with the thought that he has come across the good, he is completely mistaken. In fact, to get to it requires a divine methodology, one not easy. It is best employed by someone who does not care for the things of perception, applies himself with enthusiasm to the mathematical sciences, contemplates numbers, and thus learns to master this subject: What is *being*? (Numenius fr. 2, *ap.* Eusebius, *Preparation for the Gospel* 11.22.1-2, trans. Boys-Stones)

³¹ Indeed, these ideas surrounding the preconception, as Epictetus says, have *already* been articulated (διηρθρωμέναις). This, I think, rules out the idea that Epictetus is referring to the bare preconception as a standard here (see n. 30, above), as does the fact that he refers to multiple ideas surrounding the preconception: that it is stable, that it is a source of pride (for, even on the ‘preconception as fuzzy conception’ reading, it is assumed that the content of the preconception must be relatively simple (see Vogt (2008a), 159). As such, I think Oldfather is right to cash out διηρθρωμέναις ταῖς προλήψει as something like a “system” of such ideas – which I have substituted for Hard’s “systematically examined preconceptions”, above.

Prima facie, the Stoics do have an immediate answer to this. For, according to them all properties are bodies, the good included.³² However, another point of Stoic theory effectively commits them to the position that almost no-one will see so much as a single instance of goodness in their lifetime. This is their notorious claim that wise people – people, that is, who instantiate the good – are superlatively rare, possibly to the point of never existing at all.³³ But, what is more, the problem is once more compounded by the Stoics’ radical distinction between the good and the non-good, meaning that we do not even encounter partial or imperfect instances of goodness in people, say, who have made some moral progress.

However, it so happens that the wise person is not the only ‘good’ thing that the Stoics might appeal to here. For they also maintain that the *cosmos* is good. Indeed, for the Stoics the cosmos is the ultimate instantiation of goodness. On most readings of Stoicism, it is precisely in reference to the cosmos as a whole that everything derives its goodness – hence the human good comes out as ‘to live in accordance with nature’.³⁴ Moreover, we have already seen that the Stoics do say that the character of the good “exists by nature”, which seems precisely to imply that the character of the good is set down in the cosmos itself.³⁵ As a preliminary answer to Numenius, then, the Stoics could say: *of course* we do not just see the good ‘flying towards us’. This is because the good is not like this; we cannot just look at a piece of the world and call it good. Goodness is something that exists in, and in relation to, the cosmos as a whole.

The difficulty, however, (and the Stoics seem to have realised this)³⁶ is that it is very difficult to explain how the cosmos can play this grounding role from the point of view of the agent. It is clearly not enough simply to *look* at the cosmos. So how does an agent go about ‘fitting’ or ‘applying’ (to use Epictetus’ terminology) one’s concept of the good to the cosmos itself? And if one manages such a thing, how does the good, articulated as such, play a role within one’s ethical considerations?

Traditionally for the Stoics, though, this is where their famous theory of *οικείωσις* seems to come in. Indeed, *οικείωσις* is presented as the overriding framework in which our ethical

³² Seneca *Ep.* 117.2.

³³ As pointed out by Inwood (2005c, 274-5), and Boys-Stones, *op. cit.* On the rarity of the sage: Alexander *De fat.* 196.24-197.3; on potential non-existence: Cicero *Fin.* 4.65; *Div.* 2.61; *Tusc.* 2.51.

³⁴ As will be explored in Chapter 5, this claim about the role of ‘cosmic nature’ in Stoic ethics is contentious. The evidence, however, seems to be on its side – see esp. D. L. 7.87-8.

³⁵ Indeed, it is precisely by doing so that the Stoics can claim the good is absolute; for the cosmos represents *everything that there is*. What is good in relation to the cosmos is thus *ipso facto* good absolutely.

³⁶ The Stoics’ long-standing awareness of this problem is discussed in Chapter 5.

development occurs, including the development of our understanding of the ‘good’.³⁷ According to this theory, as soon as we are born we are driven to preserve our own natural constitutions, motivating us to seek out things that will promote this constitution – things such as nourishment. Our motivation towards such things is explained by our coming to view them as ‘belonging’ (being ‘οικείον’) to our natures.³⁸ The process is *ethically* significant because these experiences form an empirical starting point for the agent’s understanding of *value*: we consider things to be of value (i.e., to be a source of motivation) precisely to the extent that we consider them to ‘belong’ to our natures.

The process of οικείωσις, however, does not stop here. Indeed, the reason why οικείωσις becomes relevant to our problem is because, as we develop, our sense of what ‘belongs’ to us is supposed to be able to be extended beyond the requirements of bodily wellbeing, to include the concerns of other beings.³⁹ The paradigmatic example of this is the relationship of parent to child, though with rational effort we are supposed to be able to extend our sense of οικείωσις to include others as well. In ideal circumstances, this process ought to go on until it includes the entire community of rational beings – which is to say, ultimately, the entire cosmos. Eventually, then, we come to view the concerns of the cosmos itself as falling within our own sphere of self-interest – which is why, I take it, the Stoic τέλος comes out as to live in accordance with nature as a whole.⁴⁰

One function of οικείωσις, then, seems to be precisely to explain how we are supposed to be able to get into a state in which we could meaningfully ‘apply’ the term good to the cosmos. It is not by *seeing* the cosmos that we come to understand the proper application of

³⁷ For the framing of acquisition of the concept of the good within οικείωσις: Cicero *Fin.* 3.21-2. See Jackson McCabe, esp. 335ff.; Vogt (2008a), 160ff; Menn (2008), 178; Boys-Stones (2014), 298ff. Cf. Striker (1989, 156 n. 14), however, who does not think the *concept* of the good is at stake here. Cicero’s use of the term *ἐννοιαν* in this context seems to count against Striker’s contention, though.

³⁸ As Plutarch describes the process at *Sto. rep.* 1038c: “Οικείωσις is a perception and a laying hold of something as being οικείον (οικείωσις αἰσθησις ἔοικε τοῦ οικείου καὶ ἀντίληψις εἶναι)”.

³⁹ This stage of the process is often described as ‘social οικείωσις’. A great deal of scholarship has been dedicated to trying to show how the initial selfish drive with which all agents begin life becomes an other-oriented drive in the second stage. See, for instance, Pohlenz (1940); Pembroke (1971); Inwood (1985, 183ff.) – all of whom see the two stages of ‘individual’ and then ‘social’ οικείωσις as continuous. Variants of this interpretation include Reydam-Schils (2002) and Klein (2015) (although Klein essentially rejects the distinction between ‘individual’ and ‘social’ οικείωσις completely). Others suggest there is a radical break between the stages, e.g. White (1979); Frede (1994); (2004); Striker (1996). For an excellent summary of the scholarship on οικείωσις, see Klein *op cit.*, esp. 153ff. My own opinion falls in the first camp, seeing our adult motivations as a development of the juvenile form of self-preservation: in sum, we come to view the wellbeing of the cosmos as a part of our own *self-interest*.

⁴⁰ This, in any case, is how I read Stoicism. To me, in order to get to the stage where the agent genuinely views ‘living in accordance with nature as a whole’ as their *own* good, it seems necessary that one comes to view the whole cosmos as ‘belonging’ (being οικείον) to oneself in this way (for a similar reading see Vogt (2008b), 213ff). As will be explored in greater detail in Chapter 5, some scholars – pre-eminently Julia Annas – deny the importance of this cosmic context for a Stoic agents’ ethical deliberations. See Annas (1993), esp. 159-79; (1995); (2007). Contra her position, see esp. Cooper (1995); (1996); Inwood (1995).

this term. Rather, it is by coming to understand our *relationship* with the world around us – coming to understand that it is the cosmos itself that forms the proper context for our ethical deliberations. We come to see, in other words, that it is the wellbeing of the cosmos as a whole that should serve as the benchmark for our understanding of the good.

If this is how the Stoics traditionally went about explaining how the cosmos comes within the agent’s ethical frame of reference, Platonists were evidently not convinced. As we shall see in a moment, even if a Platonist were to concede that the cosmos could provide the grounding for some abstract notion of ‘the good’, they nevertheless deny that a Stoic *agent* could ever come to meaningfully ‘apply’ or ‘articulate’ the good in this way. They deny, in other words, that a Stoic agent could *ever get* the cosmos within their ethical frame of reference in such a way that it could serve as the grounds for an understanding of the good. The reason for this, it turns out, is again a direct consequence of the Stoics’ empiricism:

ὠκειώμε|θα γὰρ τοῖς ὁμοειδέσι· | μᾶλλον μέντοι ὠ|κείωται το[ῖς ἐ]αυτοῦ πολῖται[ς· ἐπιτείν]ε|ται γὰρ καὶ ἀ[νιέτ]α[ι] ἢ | οἰκείωσις· ὅ[σοι το]ῖ[ν]υν | ἀπὸ τῆς οἰκείωσης | εἰσάγουσι τὴν δικαιο[σύν]ην, εἰ μὲν λέγου[σιν] ἴσην αὐτοῦ τε πρὸς | αὐτὸν καὶ πρὸς τ[ὸν] ἕ|[σ]χάτον Μυσῶν, τεθέν[τος] μὲν τούτου σώζε|ται ἢ δικαιοσ[ύ]νη, οὐ | συγχαρεῖται [δ]᾽ ἐ[ἴ]γαι ἴσην· παρὰ γὰρ [τὴν] ἐνάργειάν ἐστιν κα[ὶ] | τὴν συναίσθησιν. ἢ | μὲν γὰρ πρὸς ἑαυτὸν | οἰκείωσις φυσικὴ ἐστίν | καὶ ἄλογος, ἢ δὲ πρὸς | τοὺς πλησίον φυσικὴ | μὲν καὶ αὐτὴ, οὐ μὲν|τοι ἄνευ λόγου. ἐὰν γοῦν | καταγνώμεν πονη|ρίαν τινῶν, οὐ μόνον | ψέγομεν αὐτούς, ἀλλὰ | καὶ ἄλλοτριούμεθα | πρὸς αὐτούς, αὐτοὶ δὲ | ἄμαρτάνοντες οὐκ ἀποδέκονται μὲν | τὰ γ’ ἐχόμενα, οὐ δύναν|ταα[ὶ] δὲ μεισῆσαι αὐτούς. | οὐκ ἔστιν τοίνυν ἴση | ἢ οἰκείωσις πρὸς ἑ|αυτὸν καὶ π[ρὸς] ὄντιν|οῦν, ὅπου μηδὲ πρὸς | τὰ ἑαυτῶν μέρη ἐπ’ ἴση[ς] ὠκειώμεθα. οὐ γὰρ | ὁμοίως ἔχομεν πρὸς | ὀφθαλμ[ὸν] κα[ὶ] δάκτυ|λον, ἴνα μὴ λέγω πρὸς | ὄνυχας καὶ τρίχας, ἐπεὶ | οὐδὲ πρὸς τὴν ἀποβολὴν αὐτῶν ὁμοίως | ἠλλοτριώμε[θ]α, ἀλλὰ | μᾶλλον καὶ ἦττον.

For we experience οἰκείωσις towards what is similar to us: he [Socrates] feels more οἰκείωσις towards his own citizens. For οἰκείωσις is more and less intense. If those who base justice on οἰκείωσις say that one has an equal sense of οἰκείωσις towards oneself and the farthest Mysian, their thesis preserves justice – but it is not agreed that οἰκείωσις *is* equal, because that is something that is contrary to what is obvious and to co-perception (συναίσθησις). For οἰκείωσις towards oneself is natural and non-rational while that towards one’s neighbours is also natural, but not non-rational. If we discover wickedness in people, we do not only censure them, but have a sense of alienation towards them; but they themselves, when they are doing wrong, do not accept what goes with it, and are unable to hate themselves. In fact, the οἰκείωσις one feels towards oneself is not equal to that felt towards *anyone* else, when we do not even have an equal sense of οἰκείωσις towards all our own limbs. We do not feel the same way about an eye and a finger, let alone about finger-nails and hair, since we are not equally ‘alienated’ from the loss of them, but from some more and others less.

(Anonymous, *Commentary on the Theaetetus* col. V.18-VI.16, trans. Boys-Stones, modified)⁴¹

⁴¹ For discussion of Anon’s anti-Stoicism in the *Commentary*, see Bonazzi (2008). For a similar point to that made by Anon. here, see Maximus of Tyre, *Orations* 35, esp. 35.2-3. Here Maximus seems at first to say, rather pessimistically, that because human nature falls short of the divine, humans are in general unable to achieve true

As Anon. admits, if it *were* possible to extend one's realm of self-interest to the point at which it coincided with the whole community of rational beings, then the Stoic account of justice (and also the good) would stand: the Stoics would both be able to account for an *objective* concept (objective because it is grounded in the *whole* cosmos), *and* one that could be meaningfully understood ('articulated' 'applied') by the agent. However, Anon. argues that the sort of total impartiality towards other beings that the Stoic position requires is simply not feasible. Anon. appears to concede that we can extend our sense of οἰκείωσις to some extent – Socrates, for instances, experiences οἰκείωσις towards his fellow citizens. But the process certainly cannot extend to the 'furthest Mysian' (*a fortiori* to the cosmos as a whole). In fact, though, Anon. seems to have doubts that we could achieve true impartiality even towards our nearest and dearest. People generally cannot even get beyond the bias they have towards their own *bodies* – or worse, beyond the most important parts of their own bodies. Far from underwriting an objectively grounded concept of the good, then, οἰκείωσις can only lead to a *relative* notion of goodness, one grounded, first and foremost, in the wellbeing of one's own body.⁴²

It should be emphasised that while Anon's critique is framed as an attack on οἰκείωσις in particular, it applies equally to empiricist claims about ethics more generally. This much is indicated by the fact that Anon. goes on to argue that the Stoics fail to establish justice for the very same reasons as the Epicureans – an empiricist school who notably omitted οἰκείωσις from their ethical account.⁴³ The underlying point therefore seems to be that *any* empiricist model will run into these difficulties.⁴⁴ The problem, I suggest, is that empiricism by its very nature can only provide a partial, 'first-person', and therefore *partisan* perspective on the world. This very point might be what is indicated by Anon.'s reference to 'co-perception' (συναίσθησις) – a term that has a particular technical significance in Stoicism. The meaning

οἰκείωσις to our fellow beings. However, the point that emerges seems rather to be that it is only insofar as man lapses into his *merely* human nature – by pursuing pleasure, wealth and the like (i.e. precisely reducing himself to the 'body') – that he will fall short of divine friendship with other beings. Thus, just as Anon. goes on to say that justice is preserved if we adopt Plato's methodology of 'becoming like god', so too Maximus encourages us to pursue philosophy if friendship is to be preserved. What is also significant is that Maximus – just like Anon. and, as we shall see in a moment, Seneca – all mark out the over-attachment to the body and to external possessions as the thing that prevents us from extending our sense of οἰκείωσις to our fellow beings (see esp. *Or.* 35.6).

⁴² As Inwood (1984, 182-3) points out, Anon. thereby shows that the Stoic theory is no better than the Epicurean position, in which goodness and justice are explicitly reduced to self-interest.

⁴³ Col. VI.35-VII.1.

⁴⁴ Indeed, it is unlikely that the Platonists would be satisfied even if the Stoics or some other school made this other-directed impulse a fundamental feature of an agent's psychology from the very start (as some indeed claim is the case with the Stoics – see Reydam-Schils (2002), with an updated version in id. (2005a), ch. 2). For, even then one's limited perspective would result in a stronger sense of attachment to those closest to oneself – those, that is, who fall within the one's direct experience.

of this term has been interpreted in a number of ways,⁴⁵ but some have suggested that it is meant to describe the way in which an agent constantly perceives the world *in relation* to their own constitutions – a theory that therefore precisely posits *oneself* as the basic reference point for one’s experience and evaluation of the world.⁴⁶ If correct, this strongly suggests that Anon’s point is just as I say: that empiricism leads to an inherently egoistic perspective on the world, meaning that the best any empiricist could hope to achieve is an understanding of the good grounded in a narrow form of self-interest.

Indeed, it is for this reason, Anon. goes on, that Plato founded justice not on οἰκείωσις, but on “coming to be like god” – which is to say, on the basis of an apprehension of the Forms. The advantage of this approach, presumably, is the fact that contact with the Forms offers a way out of the partial perspective offered by empirical experience. Ultimately, therefore, the Platonists strive to show that it is only by positing the Forms that one can make coherent, objective claims about the good.

3. Seneca and the problem of the good

One reason for thinking that Seneca was even aware of this debate is the fact that one of his *Letters* – his 120th – tackles this very issue: how we come to form a concept of the good. He opens the problem as follows:

Now I return to the point you want me to discuss, how we first acquired a conception of the good and the honourable. Nature could not teach us this: what nature has given us is not knowledge but only seeds of knowledge. Some people say that we merely happened upon the conception, but it is beyond belief that anyone should have stumbled upon a notion of virtue by chance. Our own view is that the honourable and the good are inferred through observation and comparison of repeated actions; in the judgment of our school, they are understood “by analogy.”

(Seneca, *Letters* 120.3-4, trans. Graver and Long)

Here Seneca corroborates what we saw earlier about the role of preconceptions: first, that they tell us nothing about what the good actually *is*; second, that the process of their articulation is dependent on empirical experience: in the first place “observation and comparison of repeated actions” – though here Seneca also foregrounds the importance of the process of *analogy*.

⁴⁵ As, for instance, ‘self-awareness’: Watson (1971), 220; ‘Consciousness’: Pembroke (1971), 119. Long (1993), on the other hand, sees συναίσθησις as simply a way of describing the perception of oneself.

⁴⁶ This does seem to be how Hierocles uses it at *Eth. el.* I.45- II.3. This reading is argued for by Boys-Stones (2007a, 83ff.) and more recently by Klein (2015), esp. 173ff.

What is significant about ‘analogy’ as a cognitive process is that, despite relying on an empirical starting point, it is nevertheless capable of producing a new concept *without* the need for direct experience of the thing in question. The Stoics theorised a number of these second-order operations: analogy, resemblance, transposition, composition and contrariety.⁴⁷ The standard Stoic example of a concept arrived at analogically are those of Pygmies and the Cyclops – which are analogous to humans in basic anatomy, but respectively smaller or bigger. Like Seneca, though, other Stoic sources mark out the particular importance of analogy in the acquisition of a concept of the good.⁴⁸ What this analogy consists of, Seneca describes as follows:

Let me explain what this analogy is. We knew about bodily health; from this we figured out that there also exists a health of the mind. We knew about bodily strength; from this we inferred that there also exists a strength of the mind. Certain acts of generosity or humanity or courage had amazed us. We began to admire them as though they were perfect. There were many flaws in them, hidden by the brilliant appearance of some splendid deed; these we overlooked. Nature tells us to magnify praiseworthy actions, and everyone always carries glorification beyond the facts. Thus it was from these acts that we derived the notion of a mighty good.

(Seneca, *Letters* 120.5, trans. Graver and Long)

From the observation of physical health and strength – things which *are* open to direct observation – we come to conceive of *psychic* analogues. It should be pointed out that what the analogy is *not* is a jump from ‘imperfectly honourable’ acts up to a concept of completely *good* acts. While such an analogy might seem plausible considering the standard example of the Cyclops – which ‘enlarges’ from one instance to the other – such an act of increase is not possible for the Stoics when it comes to the good because of their strict axiological dualism.⁴⁹ Rather, the experience of praiseworthy acts – by which we are just *naturally* amazed⁵⁰ – seems to be what first draws our attention to, and awakens our interest in, psychic accomplishments.⁵¹ What Seneca shows, then, is how our concept of the good can begin to be ‘nurtured’ – which is to say, how we can begin to refine its field of application – *without* the need for direct empirical experience. The significance of analogy, I suggest, is that it helps us

⁴⁷ See D. L. 7.52; cf. S. E. 3.41 ff.

⁴⁸ Cicero *Fin.* 3.33. Note, however, that Boys-Stones (2014, 305ff.) argues that Seneca foregrounds a different, Peripatetic-inspired version of analogy to that found in Cicero.

⁴⁹ On this problem see esp. Inwood (2005c).

⁵⁰ Inwood stresses the importance of the fact that it is *providential* ‘Nature’ which urges us to ‘amplify’ ‘honourable’ deeds of this kind. I am not sure what exactly this adds – though it might be significant if it means that providence guarantees that the process of analogy gets going in the first place.

⁵¹ As suggested by Boys-Stones (2014, 307-8 n.18), who argues against Inwood’s (2005c, 285) implication that the perception of honourable deeds brings about a second analogical stage.

get the process off the ground – allowing us to conceive of objects of value that are not directly open to the senses.

In fact, although Seneca foregrounds the particular importance of analogy in this process, throughout the subsequent paragraphs he can be seen to utilise a number of the second-order operations mentioned above.⁵² At 120.8, for instance, Seneca says “Let me add something you may find amazing. We sometimes gained a notion of the honourable from things that are bad, and excellence has been made clear from its opposite”. This, surely, is an example of ‘contrariety’. At 120.10, Seneca now describes how from observing people carrying out praiseworthy deeds, but only as ‘one-offs’, we come to a conception of someone who acts like this with complete consistency. Here the operation of ‘composition’ seems particularly relevant.⁵³ The archetypal example of this in our evidence is the concept of a centaur, which we arrive at by combining parts of both man and horse. A similar operation could be seen to be taking place here – taking various isolated praiseworthy acts and combining them into the idea of someone who acts like this all the time.

Over this portion of the Letter, then, Seneca draws on a range of cognitive processes which allow us to refine our understanding of where we should properly ‘apply’ the term good – without, crucially, requiring us to actually perceive a wise person. The use of such processes, then, may help to address the sort of concern raised by Numenius: the fact that we do not *see* the good.

At 120.12, however, Seneca appears to take a new direction;⁵⁴ and here we begin to see signs of him grappling with the kind of issue raised by the anonymous commentator. Seneca now seems to begin to consider the happy *life*,⁵⁵ and starts to outline what precisely this would entail on the part of an agent:

The perfect man, the one in possession of virtue, never cursed his luck and never reacted to circumstances with a grim face. Believing himself to be a citizen and soldier of the world, he took on each labour as though it were a command. He treated no incident as an annoying nuisance and misfortune but as a task assigned to himself...he was calm and gentle, equally resigned to human affairs and to acts of God (120.12-13)

⁵² The connection between Seneca’s approach and the second-order operations found in Diogenes Laertius is also made by Pohlenz (1940), 86-8.

⁵³ Alternatively, this could be seen as an act of ‘privation’ – not mentioned in the standard list of operations but mentioned, seemingly as an afterthought, by Diogenes Laertius at 7.53. The example of privation given is that of a normal man to a man with no hands. Conceivably, one could similarly strip away the inconsistencies of a normal person’s behaviour to arrive at a notion of someone acting with perfect consistency.

⁵⁴ I agree with Inwood (2005c, 290) that Seneca seems to start in a new direction here.

⁵⁵ Or so it seems. See Inwood, *op. cit.* for discussion of the difficulties in interpreting this section of Letter 120.

Here, then, Seneca introduces the cosmic dimension of the sage's ethical outlook. The wise man's serenity, his immunity to adverse circumstances, stems from the fact that he views himself as a "citizen and soldier of the world". Because of this he regards local circumstances not merely as indifferent but actually a part of his *duty*; and the reason he is able to do so is precisely the fact that he sees the worth of his own actions as deriving from, or as existing in relation to, the cosmos as a whole.

It is what Seneca says next, though, which seems especially relevant to Anon.'s concerns. Now Seneca begins to consider the attitudes underlying the sage's ability to live like this, choosing to foreground, in particular, the attitude that the sage has towards his *body*:

The only mind that could be superior is the divine intellect from which a part has passed down into this mortal heart of ours. That heart is at its most divine when it reflects on its own mortality. Then it knows that a human being is born in order to complete life's term with a body that is not a home but a sort of short-term guesthouse... Don't we notice how many inconveniences trouble us and how little satisfied we are with our bodies? Now it is our head we are complaining about, now our stomach, and now our chest and throat...Yet even though we are allotted such decaying bodies, we nonetheless make plans for eternity. In our hopes we seize on the maximum possible extent for a human life, not content with any finite sum of money or influence. (120.14-17, trans. Graver and Long)

Inwood detects an almost Platonic level of bodily devaluation here: the sage views the body as a mere guesthouse, or, as Seneca says a little later, as something merely on loan (120.18). Meanwhile the rest of us fail to see what an unworthy object of our esteem the body is: vulnerable, frail, and prone to disease. And yet, despite this, we continue to see it as something truly valuable: we complain about it; we rely on it as though it were something stable and dependable. Inwood suggests, rightly I think, that Seneca here is suggesting that "a ruthlessly clear recognition of the distinction between body and mind is the price one must pay for sustaining the consistency that is the mark of virtue".⁵⁶ To view oneself as a 'citizen and soldier of the universe', I think Seneca is suggesting, one needs precisely to stop grounding one's sense of value in the body – it just gets in the way.

But Seneca's emphasis on the attitude we have to our bodies takes on, I think, a special significance when we consider the critique of the anonymous commentator. If we recall, Anon. buttressed his point about the limited scope for agents to extend their realm of self-

⁵⁶ *Op. cit.*, 294. I do not agree with Inwood, however, that Seneca is pushing this devaluation of the body beyond what other Stoics would accept. For the Stoics, as much as the Platonists, the body is seen as the inferior partner in man's nature, and a potential source of corruption – insofar as it can become a conduit for irrational desires. To emphasise this point, Stoics could be quite emphatic in their deprecation of the body (see Brennan (2009), who explores the negative attitude of the Stoics towards the body). It therefore seems perfectly legitimate for Seneca to minimise the importance of the body in this way – especially, as I shall argue, in the context of the issue at hand.

interest precisely by pointing out that people tend not even be able to get past the bias they have to their own *bodies*. Of course, the Stoics would claim that this widespread tendency is merely the product of the corrupted value-system of most people: they are ‘applying’ the term good in the wrong place. Nevertheless, Anon.’s argument here has considerable intuitive force for the very reason that, in our experience, pretty much everyone *does* appear to prioritise their own bodies. By foregrounding the problem that the body causes us in realising the Stoic ideal, Seneca appears to recognise the problem. He recognises, in other words, that the plausibility of the Stoic account of the good rests on the fact of this radical renegotiation in our relationship with the body being possible.

In Letter 120, however, I do not think that Seneca gets much further than recognising the problem. Of course, like a good Stoic, he maintains that a change of attitude towards one’s body is *possible*; and he spends a considerable amount of time *exhorting* us to see the inadequacies of the body as the grounds for our thinking about the good. Nevertheless, the fact that he does recognise the problem is significant; for it is a problem, I suggest, that Seneca picks up in the *Natural Questions*.

4. Separating soul from body

The reason for linking the *Natural Questions* with this debate is the fact that there are a number of statements, occurring at important points in the work, that seem to speak directly to the sort of issue we found raised by the anonymous commentator.

As we have seen, part of Anon.’s contention is that empiricism limits agents to what might be called a ‘first-person’ view of the world. In the *Natural Questions*, though, Seneca seems repeatedly to suggest that the study of nature can help us to transcend this narrow perspective. In the first instance this comes out in the recurrent idea that the study of nature can bring about a kind of separation of mind and body – indeed, at the end of the preface to book 3 (widely considered the opening book) Seneca says that this separation is the very reason why we study nature (3. pref. 18). This is significant, of course, because as Seneca suggests in Letter 120, and as is also implied by Anon., it is the body in particular to which people become overly-attached, which in turn prevents the necessary extension of one’s realm of self-interest. Moreover, though, elsewhere in the work Seneca phrases this ‘separation’ not just as an escape from one’s body, but actually from *oneself* – which, if anything, speaks even more clearly to Anon.’s objection. In the preface to book 4a, for instance, Seneca tells Lucilius that in order to avoid being lured into political ambition by unscrupulous sycophants, “one must flee and retreat into oneself, or better still, actually

retreat *from* oneself (*a se recedendum*)” (4a pref. 20), and proposes that his study of nature will achieve just this. In the preface to book 1, meanwhile, Seneca praises the moral progress that Lucilius has made thus far, but then goes on to remind him “You have not yet achieved anything: you have broken free from many things, but not yet *from yourself*” (1 pref. 6, my emphasis). Again, Seneca suggests that physics is the remedy, and goes on to describe how the study of nature sends the philosopher’s soul soaring into the heavens, allowing the soul to take in the whole earth from above.

Another facet of Anon.’s contention, however, is that, even if one could extend one’s realm of self-interest to some degree, one certainly could not do so to the extent required by the Stoic position – to the extent, that is, where it encompasses the whole cosmos. Significantly, then, Seneca at various points seems at pains to emphasise mankind’s close relationship with the cosmos itself. In part, Seneca demonstrates this by drawing attention to the fact that human beings are just naturally drawn to study nature (e.g. 6.4.2; 7.1.1; 5.15.3). Seneca suggests that this desire alone is evidence for an affinity that already exists between man and cosmos. Significantly, though, Seneca also implies that the study of nature actually helps to *foster* this sense of affinity. We again see this in the preface to book 1:

...hoc habet argumentum divinitatis suae quod illum divina delectant, nec ut alienis, sed ut suis interest. Nam secure spectat occasus siderum atque ortus et tam diversas concordantium vias; observat ubi quaeque stella primum terris lumen ostendat, ubi columen eius [summum cursus]⁵⁷ sit, quousque descendat; curiosus spectator excutit singula et quaerit. Quidni quaerat? Scit illa ad se pertinere.

It [the mind] has this proof of its own divinity, that it takes delight in the divine, and enjoys it not as someone else’s possession but as its own. For confidently it watches the settings and risings of the stars, and their differing but harmonious paths; it observes where each star first reveals its light to earth, where its zenith [the highest part of its course] is, to what point it descends. As a fascinated spectator, it examines and inquires into each detail. And why should it not inquire? It knows this all relates to itself. (1 pref. 12-13)⁵⁸

The delight we feel when we penetrate the secrets of nature seems to draw our attention to what we and the cosmos have in common: our shared divine, which is to say fundamentally *rational*, nature. Such a realisation, Seneca says, leads us to see the cosmos as our own *possession*, and to see that it all ‘relates’ to us. This seems especially significant, though, because this language of ‘owning’ and ‘relating’ strongly recalls the language of οἰκείωσις.

⁵⁷ Hine takes this to be an interpolation explaining *columen* (“zenith”).

⁵⁸ Trans. Hine. All translations of the *Natural Questions* in this thesis, unless otherwise stated, are from Hine (2010a). The Latin text I use is also that of Hine (1996).

What Seneca seems to be suggesting, then, is that the study of physics is somehow supposed to strengthen the sense of ‘belonging’ we feel towards the cosmos.

The benefits that Seneca ascribes to the study of nature, therefore, seem to speak directly to the problem raised by the anonymous commentator. While Anon. suggests that a Stoic agent could have only a limited perspective on the world, with a correspondingly narrow conception of self-interest, Seneca suggests that the study of nature can help one to transcend this perspective, and can, furthermore, help to *foster* one’s sense of οἰκείωσις towards the cosmos.

But what takes this outside the realm of coincidence, I think, is the fact that Seneca phrases all of this in strikingly *Platonic terms*. The motif of separating body and soul is itself, of course, one with strong Platonic connotations. But the language in which Seneca phrases this separation is so laden with Platonic allusion that one cannot but suspect its purpose is to bring Plato to mind:

Sursum ingentia spatia sunt, in quorum possessionem animus admittitur, <s>ed⁵⁹ ita, si secum minimum ex corpore tulit, si sordidum omne deterisit et expeditus levisque ac se contentus⁶⁰ emicuit. Cum illa tetigit, alitur, crescit ac velut vinculis liberatus in originem redit.

Up above there are vast spaces, which the mind is allowed to enter and occupy, provided that it takes scarcely anything of the body with it, that it wipes away any uncleanness, and that it soars upward unencumbered, nimble, and self-reliant. When it has reached those regions, it finds nourishment, it grows, and, as though freed from its chains, it returns to its origin (1 pref. 11-12)

Separating the mind from the body, which is viewed as a source of pollution and a form of bondage; rising up into the heavens and being *nourished* by what it finds there; and in doing so returning to its *origin*: all are extremely distinctive ideas lifted from dialogues such as the *Phaedo*, *Phaedrus* and *Timaeus*.

As mentioned at the start, these allusions have frequently been taken as evidence for the conciliatory reading of Seneca vis-à-vis Platonism. However, what our examination of the contemporary philosophical context now shows is that there is clearly room for a polemical reading of these allusions. For what we can see now is that these Platonic references tend to occur at precisely those places where points of dialectical significance are being addressed.

⁵⁹ A conjecture by Hine. Most editors read *et*.

⁶⁰ MSS variations include *se contemptus*; *se contentus modico*; *contentus modico*. The last is adopted by most editors, and does not seem to change the meaning significantly from Hine’s choice, above. The first would represent the most radical change, though would in fact resonate with 6.32.4: “*pusilla res est hominis anima, sed ingens res contemptus animae*”. The idea of having contempt for one’s soul is one difficult to reconcile with Stoic thought. The point must surely be directed against an overly *self-centred* view about what is valuable, where the soul here is taken as a stand-in for the self in a more general sense. If this were right it would again speak to the sort of concern raised by Anon.

The Platonists argue that an empiricist agent would be locked into a partial, body-centric perspective on the world; Seneca argues that the study of nature can help us break free from this perspective *and employs Platonic motifs to illustrate this*. The Platonists contend that an empiricist agent could not extend their sense of οἰκείωσις to the whole cosmos; Seneca argues that this is possible, *and employs Platonic motifs to illustrate this*. Rather than indicating conciliation, then, it seems plausible that these allusions are instead intended to signpost Seneca's engagement with the issues put forward by Platonists.

While these statements suggest the possibility of the work being oriented towards the debate explored in this chapter, it remains to be seen how the work as a whole can be taken to be addressing the problem. Indeed, it should be noted that most of the statements about these benefits that we gain from the study of nature come from the prefaces to book 3 and 1. While it is widely agreed that these prefaces are presented as programmatic for the work as a whole, it has also often been pointed out that it is very difficult to see how the ideas in them subsequently play out – either in the books to which they are attached, or the work as a whole. The question now, then, is to consider whether and how these ideas are subsequently developed throughout the work as a whole. How does Seneca propose the study of nature brings about this separation of mind and body, or promote our sense of οἰκείωσις towards the cosmos? As it turns out, it is the Platonist context again which proves crucial to answering these questions.

Separating Mind from Body: The Aetiology of the Natural Questions

1. Introduction

In the previous chapter we saw the Platonists argue that empiricists like the Stoics cannot account for a well-grounded concept of an objective good. The Stoics, as we saw, attempt to identify the good with the wellbeing of the cosmos as a whole – which *would* constitute an objective good precisely because it is grounded in everything that there is: the entire cosmos. The Stoics then draw on the theory of οἰκειώσις to explain how an agent can get the cosmos within their ethical frame of reference, such that they can meaningfully regard the cosmos as the grounds for their understanding of what is good for a human being. As we saw, however, the Platonists argue that it is impossible for an empiricist agent to achieve this. Empiricism, they contend, necessarily limits agents to a partial view of the world, one that can only result in an understanding of the good in terms of what will benefit oneself – which is to say, principally, the body.

As we subsequently saw, though, there seem to be some indications that Seneca was aware of, and sought to address this problem. In Letter 120, Seneca appears to realise that in order to preserve the Stoic account of the good one would need to show that it is possible for people to transcend the bias they have towards their own bodies. Then, in several places in the *Natural Questions*, Seneca seems to suggest that the study of physics provides a means by which one can precisely detach oneself from one’s body, “escape from oneself”, and, ultimately, foster a stronger sense of affinity with the cosmos. These comments, and especially because they are phrased in Platonising terms, may indicate that Seneca thinks what he does in the *Natural Questions* can provide a remedy to the body-oriented relativism to which the Platonists confine the Stoics.

Three immediate questions present themselves, therefore. First, how precisely does the study of physics bring about an ‘escape from oneself’, or a ‘separation of soul and body’? Second, how does this ‘separation’ help us to foster a stronger relationship with the cosmos? Finally, how and why does Seneca think that all of this will constitute an effective response against the Platonists?

Sections 2 and 3 will address the first question. In section 2 I offer a detailed examination of the structure of the aetiology in book 3 of the *Natural Questions*. Having reviewed this, in section 3 I shall argue that it is the way Seneca *structures* the aetiology that is supposed to bring about the separation of mind and body. It achieves this by gradually leading the

reader's mind away from visible causes to ever more abstract and profound accounts of causation. This transition from the use of sense-perception to the use of intellect helps, I suggest, to divert the reader's mind away from the influences of the body – and, in this sense, effects a kind of separation of mind and body. What is more, though, I shall argue that this methodology is actually one that Seneca borrows from the Platonists.

Section 4 will then consider our second and third questions. I shall argue that Seneca realises that a strong attachment to the body is precisely what, in most cases, does prevent the process of *οικείωσις* from proceeding as it should. Strategies that help to minimise our association with our bodies are, therefore, precisely what the Stoics need. As a response to the Platonists, though, such a strategy proves especially effective precisely because it draws on a methodology that the Platonists *themselves* advocate.

Although our central question remains to explain the unusual form of the *Natural Questions*, in this chapter I shall in general be brushing over the moralising portions of the work. However, as I shall argue in the next chapter, once we understand the structure of the aetiology, the role that these passages play within the overall scheme of the work becomes clear.

2. The structure of the aetiology: the example of book 3

Let us, therefore, have a look at how Seneca goes about the aetiology. Considering Codoñer's and Hine's argument for placing book 3 first in the book-order, this seems like a sensible place to start. In addition, as a number of scholars have noted, this book also provides an excellent template for understanding Seneca's methodological approach in general.¹

Seneca begins this book's investigation into terrestrial waters by briefly reviewing some remarkable properties of water, followed by some poetic theories on the origin of rivers.² It is only at 3.4.1, however, that Seneca formally states the problem: "We are surprised that the seas do not register the arrival of water from the rivers; we should be equally surprised that the earth does not register the loss as they flow away". Seneca begins by considering two

¹ E.g. Codoñer (1989), 1801-2; Williams (2012), 17-21. Maurach (1965), on the other hand, takes book 1 as a model – but, reassuringly, his description of increasing complexity as the book progresses maps well onto the model of increasing profoundness that I argue for here. The following discussion of the first part of the aetiology in book 3 owes much to Waiblinger's (1977, 38ff.) analysis – although I break the argument down into different stages from him, and consider each stage in more detail. I disagree, however, with Waiblinger's analysis of the second half of the book, and do not detect his contrast between 'positive' and 'negative' aspects of nature in the respective halves.

² Ovid, *Met.* 3.407; Virgil, *Aen.* 1.245-6; Lucilius Iunior, fr. 4 Buechner.

unattributed³ theories: either the water flows back from the sea “below the earth in hidden channels, and what arrived openly returns secretly” (3.5), and the idea that rivers are simply filled by rainfall. Neither theory, however, seems able to account for the sheer *volume* of water flowing in rivers. However, while the rainfall theory is rejected outright ((3.7.1-4), the idea of an underground source is partially retained, and is developed further in the subsequent sections.

Here we observe an example of what Maurach sees as the hallmark of Seneca’s scientific methodology.⁴ Maurach points out that Seneca typically begins with simple theories which, though wholly or partially rejected, serve to introduce concepts that are then refined and developed as the investigation progresses. Here what Seneca retains is the notion of an underground source; but to solve the issue with volume Seneca now posits not merely underground channels, but vast subterranean caverns, large enough to support “huge marshes and great, navigable lakes, and just as seas stretch out across huge areas and flow into fjords, so the interior of the earth abounds in fresh water” (3.8). Such is their size, these caverns can provide a boundless supply of river-water.⁵

It now seems to be realised, however, that this merely pushes the original problem back a step: where then does *this* water come from?⁶ Seneca now introduces what is clearly a more technical theory: the Stoic theory of elemental transformation.⁷ Air from the surrounding atmosphere, Seneca explains, flows into these caverns and, because of the cold and dark down there, becomes “cold...sluggish and immobile”, and thus transforms into water. Here, then, is a neat explanation of the water’s origin. Seneca, in any case, seems to regard this as some kind of milestone, for he now announces: “Here you have the first explanation of how water is produced under the earth” (3.9.1-3).

Subsequently, though, Seneca continues to develop the theory. The theory of elemental exchange is now revealed to have a much more wide-reaching significance than first it seemed. Now Seneca explains that it is not merely that air can turn into water, but all four

³ In general I shall not be paying too close attention to the sources of Seneca’s theories – except where a particular choice of author may have significance in itself – such as I think is the case with the placing of Presocratic and especially atomist theories near the beginning of the investigation. The importance of this will be noted in due course. For a comprehensive analysis of the sources for Seneca’s theories, see Gross (1989).

⁴ Maurach (1965). Maurach focuses specifically on book 1, though claims – quite rightly – that Seneca employs this methodology throughout the work.

⁵ Waiblinger (1977, 40) sees the ‘cavern theory’ as part of the ‘first’ stage in Seneca’s argument, whereas I take it to be a development of the ‘underground channels’ theory.

⁶ Seneca does not explicitly note this problem, although it does, as Waiblinger (1977, 41) suggests, seem to explain the progression from the previous theories.

⁷ Indeed, it does seem to be the *Stoic* theory he has in mind, since the transformation between elements seems to be based around the idea of expansion and contraction. See *SVF* 2.413; 2.406; 1.102.

elements can transform into one another (3.10.1). This, though, turns out to be extremely important not just for rivers, but for the stability of the natural system more widely: “Nothing is exhausted if it returns to itself. There are reciprocal exchanges between all the elements: whatever one loses turns into another, and nature weighs its parts as if they were placed on a pair of scales, to make sure that the world does not become unbalanced because the equality of its components is disturbed.” (3.10.3).

This discovery, however, reveals a yet more profound truth, signalled by Seneca’s proposal to “look at this again a bit more deeply, if you agree, and then you will know that you have no further questions to ask, since you have arrived at the true origin of rivers” (3.12.1). As it turns out, we have been asking the wrong question – or at least thinking about it the wrong way. Our initial surprise at the outpouring of rivers is now revealed to be the result of our tendency to look at phenomena in isolation, instead of seeing them part of a broader, interconnected system: “So you ask me how water is produced? I shall ask in turn how air or earth is produced. But if there are four elements in nature, you cannot ask where water comes from: for it is one quarter of nature. So why are you surprised that such a large portion of nature can constantly pour something out from itself?” (3.12.1-2). When we take account of the system more widely, the apparent paradox of rivers disappears. As we shall see, this move from local accounts of causation to ones that take account of the wider system is a central feature of Seneca’s methodology – one which I shall refer to as the ‘expansive move’.⁸

Despite touting that as the “true origin” of rivers, Seneca is not finished yet. After briefly noting some similarities and dissimilarities between the Stoic view and that of Thales (3.13.1-14.2) Seneca now considers an Egyptian theory that holds that each element has a male and a female aspect.⁹ Again displaying his methodology of refinement, Seneca does not accept the theory as a whole, but retains part of it (“there are some points here I can vote for”); and the thing he preserves turns out to be the implied *biological* connotations of the theory. Seneca now explains: “I think that the earth is controlled by nature, and on the model of our own bodies, in which there are both veins and arteries; the former are receptacles for blood, the latter for breath. In the earth too there are some passages through which water runs, others

⁸ This ‘expansive’ tendency of the *Natural Questions*, it should be noted, forms the central theme of Williams (2012) – although I do not always agree with Williams in how this effect is brought about, or what its precise effect is supposed to be. On the relationship between my reading and that of Williams, see later in this chapter.

⁹ Haase, it should be noted, argued that this passage on the Egyptian theory is displaced, and should be transposed to 3.12.1 where it would serve as a kind of introduction to theory of four elements. All modern editors, however, accept the MSS reading.

through which breath does” (3.15.1).¹⁰ More important still, though, is the fact that nature is now described as having *agency*. Seneca says that the earth is controlled *by* nature (*natura regi terram*). In what follows, moreover, this sense of agency becomes more pronounced. After elaborating on the earth-human body analogy a little further, Seneca announces that “This is the origin of waters, which are produced according the *law and will* of nature” (*haec est causa aquarum secundum legem naturae voluntatemque nascentium*, my emphasis).¹¹

And yet Seneca is still not finished. Before moving into the work’s central digression, he first considers a couple of surprising natural phenomena that present specific problems – why rivers sometimes dry up; and why some springs run six hours on, six hours off (as we shall see in the next chapter, these sorts of ‘surprising’ or ‘paradoxical’ phenomena tend to cluster around the work’s moralising episodes).¹² Again Seneca solves these mysteries by drawing on the human body analogy, and by once again turning our attention to the wider system of nature. However, the second problem – intermittent springs – also allows Seneca to make a much broader point about the natural system: “Just as quartan fever turns up on the hour, just as gout keeps to time, just as menstruation sticks to a set day if nothing intervenes, just as childbirth is ready to happen in the right month, in just the same way waters have intervals at which they withdraw and return”. (3.16.1-3). Nature, Seneca points out, is *littered* with regular cycles of this kind. Indeed, in yet another ‘expansive’ move, Seneca goes on to show how such regularities extend throughout the whole cosmic system, now pointing to the regularity we find in various *astronomical* cycles: “Is it surprising when you see the chain of events and nature advancing as preordained? Winter never goes astray; summer heats up at the right time; the change to autumn and spring occurs at the usual point; solstices and equinoxes alike recur on the right day” (3.16.1-3). Seneca, then, uses such cycles to develop his point about the agency in nature – indeed not just agency, but *rational* agency; for such cycles are said to happen according to a *plan* (*per constituta procedere*). Indeed, Seneca’s language throughout this section serves to emphasise the clockwork regularity with which such cycles occur: *ad horam; ad tempus; statum diem; certa; suo tempore; suos dies*. From

¹⁰ On this analogy with the human body, and a similar one at 6.14.1ff, see Althoff (1997). I disagree that Seneca sees these as *mere* analogies; he seems to be drawing genuine correspondences here.

¹¹ Here I follow Corcoran’s translation; Hine translates “This is the explanation for the kinds of water that come into being according to the law and will of nature”. However, the ‘kinds of water’ that Seneca has just been talking about are the metals and other substances such as bitumen, and this translation gives the impression of restricting the explanation to these alone – though it seems unlikely that it was only metals and bitumen which Seneca believed to come about according to the law and will of nature. As it happens, the discussion of metals at this point in the investigation – at the point, that is, where Seneca is just introducing these biological connotations – may be significant in itself. For the Stoics apparently believed that metals were in some sense alive, or at least had the power of self-motion: *SVF* 2.988.

¹² As was already noted by Stahl (1964), 427; more on Stahl’s theory in the next chapter.

here, Seneca begins to move into the work's central digression, using one more 'surprising' phenomenon – the fact that fish are dug up from the ground – as a segue.¹³

When the aetiology resumes, Seneca returns to considering 'paradoxical' phenomena (3.19.1-26.8) – again 'framing' the moralising passage. Seneca first elaborates on the nature of underground creatures and the environment down there (3.19.1-4), before considering the remarkable properties of certain kinds of waters: their different tastes, medicinal properties, petrifying abilities; their capacity to intoxicate, poison and even kill. Some emerge boiling hot from the ground; others have the ability to change the colouring of livestock. Others still allow rocks to float on their surface – and yet more remarkable effects besides.¹⁴

This deluge of paradoxical phenomena reaches a fitting climax when we arrive at this book's finale: an aetiological account of the flood which is apparently destined to destroy mankind.¹⁵ Indeed, more than any other, this worldwide disaster seems utterly without reason, totally at odds with the picture of complete rational regularity with which Seneca broke off the investigation before the digression.

In response, then, Seneca strives to show us that even *this* phenomenon can be made sense of when considered within the wider system of nature.¹⁶ He begins by considering whether just one isolated phenomenon will bring about the flood – the sea rising? constant rain? rising rivers? No, Seneca concludes; all causes will function together to bring it about.¹⁷

¹³ Even here, though, Seneca takes one last opportunity to reaffirm the all-pervasiveness of nature's regularity, taking the underground fish as evidence that the *iura natura* applies just as much below ground as it does above (3.16.4).

¹⁴ Again, the function of these 'natural *paradoxa*' passages will be discussed in the next chapter. However, this unusually extended string of such phenomena may also be serving an additional function. For, it is worth noting that Seneca seems at pains to assign these phenomena to specific locations – locations, more importantly, that literally span the known world: Seneca mentions Caria in Asia (19.2), Albulae in Africa (20.4), Lyncestae in Macedonia (20.6); the Nile and the Danube (22); Nonacris in Arcadia (25.1); Galatia and Syria in the Near East (25.4-5) – not to mention multiple locations in Italy and Sicily. This globetrotting tour of amazing phenomena may in part serve, I suggest, to continue the 'expansive' thrust we saw throughout the previous section: whereby Seneca strives continually to direct our minds away from the local and towards the global (more on the significance of this below). If correct, then the culmination of these phenomena in the final account of the apocalyptic flood would be apt: here we arrive at a truly *global* phenomenon. On the 'globalising' significance of the flood see Williams (2012), 113.

¹⁵ Berno (2003, 96) also associates the flood with the paradoxical (or as she calls them "*adynata*") phenomena. On the relationship of Seneca's flood to Stoic theories of cosmic cycles and conflagration, Mader (1983) argues that Seneca is proposing an alternative to the conflagration. Long (1985, 33 n. 35) on the other hand thinks that Seneca is referring to a catastrophe that happens within cosmic cycles, as does Armisen-Marchetti (2006). Armisen-Marchetti *op. cit.* also usefully shows potential parallels for Stoic belief in such a flood.

¹⁶ This is perhaps supposed to have the force of an *a fortiori* argument: if you believe the *flood* can be explained rationally, then you will have no problem believing that the same can be said of the previous set of paradoxical phenomena.

¹⁷ Scholars sometimes link Seneca's reference to multiple causes here, and in the discussion of earthquakes in book 6, with the Epicurean doctrine of 'multiple causation' (e.g. Hine (2010a), 196-7 n. 51). Here in book 3, at least, there seems no reason to do so. Epicurus' point is that any of a number of causes *may* be in operation, even if, in actual fact, only one turns out to be the true cause. But to Epicurus it does not especially matter which cause is actually in operation: "If we think that [a phenomenon] might also occur in some particular way and

Here, then, we see an interesting echo of where we began in the first half of the book, where it was likewise considered whether rainfall alone was sufficient to fill rivers. Indeed, there are actually a number of striking parallels between Seneca's methodology here and what we saw earlier.¹⁸

After indulging in an extended and rather dramatic description of the flood (3.27.4-15), Seneca returns to consider its causes, reiterating his point that many will operate. But now Seneca introduces yet more causes. First, he suggests that the sea will be able to rise extremely high because of its vast reserves of water in the depths of the sea (3.28.3) (which is not unlike the 'underground cavern' theory we saw in the first half). To help us understand the scale of these reserves, Seneca now points out the spherical shape of the globe – thus, as we have seen before, encouraging us to take account of the *wider* system of nature. Indeed, this 'expansive' move is then extended when Seneca now begins to factor in *astronomical* causes for the flood (3.28.6; 3.29.1-2) – a move we also saw at 3.16.1-3.

Subsequently Seneca makes another move we have seen before – now introducing a *biological* analogy:¹⁹

...whether the world is an animal,²⁰ or a body, such as trees and plants, governed by nature, from its beginning to its end all that it must do, all that it must undergo, is contained within it. The entire rationality of a future human being is incorporated within its seed, and, while still unborn, the baby contains the law governing the beard and grey hair (for the features of the entire body and of its subsequent growth are there, in miniature, and invisible); and in just the same way the origin of the world encapsulated not just the sun, and the moon, and the motions of the heavenly bodies, and the

recognise the very fact that it [might] happen in many different ways, we shall be as free of disturbance if we *knew* that it occurred in some particular way" (*Ep. Pyth., ap. D. L. 10.80*, trans. Inwood and Gerson). Seneca, on the other hand, simply says that *all* such causes will be in operation. In book 6, meanwhile, Seneca clearly states his preference for the (Stoic) view that 'breath' (*spiritus*) is the cause of earthquakes (6.18.1ff.). *Pace* Inwood (2005a, 183), Seneca does generally express his preference for a particular explanation – although I take his point that it is strange that Seneca does not express more disdain for the Epicurean theory when it is apparently mentioned (6.20.5). However, Seneca does go on to say that Epicurus thought that breath was the most *important* cause (6.20.7), so perhaps Seneca is just drawing Epicurus on side to support his own position – regardless of his other theoretical baggage (cf. Williams (2012, 246-7), who makes a similar point). See, however, n.73, below.

¹⁸ One difference from the first half, though, is that the co-ordinating role of divine reason is present from the very beginning of the flood account, rather than being revealed in stages: "*fate* sets in motion many causes" (3.27.3, my emphasis). Nevertheless, it is noticeable that the role that divine reason plays in the flood becomes increasingly prominent as the account progresses.

¹⁹ Althoff *op. cit.* does not discuss this analogy – though it adds support to the idea that Seneca sees the analogues as genuine, rather than 'mere', analogies.

²⁰ Some MSS here read *anima*, not *animal*. This reading is followed by Oltramare, though not by editors since. The latter is certainly to be preferred. Seneca surely cannot have wondered whether the world is *nothing but* a soul, as opposed to *nothing but* a body. Rather, the distinction being drawn is not between body and soul, per se, but between beings which *have* a soul – e.g. animals – and those which do not – e.g. "trees and plants" (which on the Stoic understanding have only φύσις, falling short of ψυχή, properly speaking; see e.g. *SVF* 2.458). Seneca is therefore asking rhetorically whether the world is an animal-like being (i.e. with a soul) or a plant-like organism (i.e. without one).

birth of animals, but equally the forces that would transform the earth. These include the flood, which occurs, just like winter or summer, according to the laws of the world. (3.29.2-3)

Already here, with the mention of the *lege mundi*, we can see Seneca beginning to overlay the biological model with the notion of agency. This, then, becomes even more apparent as Seneca proceeds, saying first: “Everything will assist nature so that nature’s decrees may be implemented” (*Omnia adiuvabunt naturam, ut naturae constituta peragantur* (3.29.4)); and then even more clearly, a little later:

Everything is easy for nature, as I have said, especially what she has determined to do from the start and tackles not unexpectedly but with due warning. Already from the first day of the world, when it separated out from formless unity into its present structure, the date when the earth would be drowned was decreed. (3.30.1)

Here, then – just as immediately before the digression – Seneca emphasises the rational character of nature’s agency by pointing to its operation according to a fixed plan.

In the remaining few paragraphs of the book (3.30.2-7), Seneca thunders ominously about the immanence of the disaster (with characteristic drama: “Do you not see how the waves attack the shore as though they were going to break out?”), before concluding with the promise of a newly created world after the disaster – although, always the pessimist, Seneca warns that vice will inevitably creep back in. Even in this, though, we should note the emphasis on the *cyclical* aspect of the destruction and subsequent palingenesis – again drawing attention to the regularity of this rationally organised system.

3. From seen to unseen: Seneca’s ‘Platonising’ methodology

A number of important methodological features arise from this analysis of book 3. Some of these have been observed before. It was Waiblinger who initially pointed out that the aetiology in book 3 (or at least its first half) is developed in stages, with each stage representing a successively more profound account of causation.²¹ Seneca begins from superficial ‘mechanical’ causes – e.g. that rain fills rivers (although there may even be a yet more superficial stage before this: the ‘mythological’ explanations of poets). After developing the ‘underground channel’ theory into the ‘underground cavern’ theory, Seneca then introduces the more theoretically technical theory of elemental transformation. This, then, is used as a means of introducing the importance of taking account of the *wider* system of nature (since each elemental region feeds into and balances out the other). Nevertheless,

²¹ Waiblinger (1977), 40ff.

this account remains a merely mechanical notion of causation: elements changing into other elements on the basis of contraction and expansion. From here, though, Seneca deepens the level of causal analysis by introducing the idea of nature as a *biological* system, which is then overlain with a yet more profound notion of causation when nature is described as an *agent*. Finally, Seneca emphasises the rational component of this agency by pointing to the regularity with which nature operates, evidenced by ubiquitous regular cycles.

As I have also tried to illustrate, Seneca's approach to the aetiology of the flood displays a number of striking parallels to the methodology employed in the first half of the book. Seneca begins by considering a number of isolated theories (among which is, again, the idea that mere rainfall causes the flood). After developing (i.e. combining) these theories, Seneca refers to submarine reserves of water (cf. underground reservoir theory in the first half), before then looking to the *wider* system of nature to help explain the phenomenon: first, the overall shape of the earth; then, the influence of astronomical bodies. In what follows, Seneca introduces first a biological model, and then overlays this with the notion of rational agency.

Of course, the correspondence is not absolute or rigid; Seneca is always happy to take an excursion, to make additional side-points as he goes along if something takes his interest or (more often) to lambast a theory with which he has a particular gripe. Nevertheless, across the two parts of this book I think we see a fairly consistent methodology emerge: Seneca moves from naive accounts of causation (i.e. involving only material or mechanical causes, operating in relative isolation within the broader system of nature) to ever more complex, integrated and philosophically sophisticated ones, culminating in the action of divine reason. It seems significant, moreover, that we see this methodology unfold not once but twice in book 3 – very likely the opening book – almost as though Seneca wants to begin the work with a clear statement of his methodological approach.

In fact, though, the methodology we find in book 3 plays out, with relatively little significant variation, across all eight books of the *Natural Questions*. For the sake of maintaining focus, I remove the analysis of the individual books to an appendix to this chapter. For the time being, one significant point is worth noting: each book of the work concludes with some sort of reflection on the role of the divine in nature. This in itself, I suggest, is a powerful indicator of the general trajectory Seneca's methodology.

Codoñer has also noted some of these structural features.²² Codoñer suggests that we should understand the progression of the aetiology as a movement from the concrete to the abstract. Indeed, she suggests that Stoic physics as a whole should be conceived as a training of the *ratio* to think in abstractions, which serves to expand the critical faculty and prepare it for the attainment of Stoic wisdom.²³ While I disagree with Codoñer about the purpose of this exercise in abstraction, the suggestion is nevertheless enlightening.²⁴ However, the specific way in which we should interpret this process of abstraction is, I think, as an abstraction from *sense-perception*.²⁵ Throughout the work, Seneca repeatedly emphasises that he aims to investigate the ‘hidden’ aspects of nature. Right at the start of the work, for instance, Seneca announces his intention to seek out not only nature’s causes, but also its “secrets” (*secreta*), and comments on how “inaccessible” (*occulta*) these problems are (3 pref. 1). In the preface to book 1 (the other of the work’s important ‘programmatic’ prefaces) Seneca seems to suggest that the distinctive feature of physics is the fact that it “is not satisfied with the eyes; it suspects that there is something greater and more beautiful that nature has placed beyond its sight” (1 pref.1; cf. 6.5.2), and he subsequently claims to “give thanks to nature whenever I see her not in her public aspect, but when I have entered her more remote regions” (1 pref. 3). Elsewhere Seneca blames our misunderstanding of natural phenomena on the fact that “we grasp nature with our eyes, not our reason” (6.3.2) – a criticism that recurs several times (6.7.5; 7.30.4; 1.3.9).

Interestingly, then, as well as a steady increase in the profundity of causal analysis, the progression through causal explanations in book 3 can be read as a gradual abstraction away

²² Codoñer (1989), 1799ff. While I agree with many of Codoñer’s suggestions, I do not entirely agree with her structural analysis, which restricts the process of abstraction to the first half of the book. I maintain that the process continues across the *whole* of each book, not just the first part.

Codoñer, in fact, sees the tendency to move from concrete to abstract not only as the structural principle in each book, but of the work as a whole. She notes, plausibly in my opinion, that there is an overall ‘upward’ tendency across the books: beginning with terrestrial phenomena, finishing with those in the heavens and atmosphere (in this she is followed by Gaulty 2004; cf. Williams (2012) 27, *et passim*). Book 2, she argues, represents a fitting conclusion to this progression because of the Jovian connotations of lightning. This, as Codoñer notes, nicely complements another commonly suggested structural principle of the work: elements (e.g. Waiblinger (1977); Hine (1981)). Thus (assuming the *Non praeterit* ordering) the work begins with terrestrial water, moving to water in the atmosphere, then air, culminating with fire. This structuring is not entirely unproblematic: why, for instance, does Seneca not finish with book 7, and his theory that comets are *celestial* phenomena – surely a more fitting conclusion to the upward trajectory. Nevertheless, I tend to agree with Codoñer here.

²³ Codoñer (1989), 1813.

²⁴ Codoñer suggests that its purpose is to arrive at knowledge of god – which she suggests is the ultimate purpose of physical study. While I agree that god is where the investigation ends up, I do not think that knowledge of god is per se the reason why we should study physics. As I argue in Chapter 5, the Stoic study of physics should be conceptualised as a therapeutic, rather than a knowledge-gathering exercise.

²⁵ Toulze-Morisset (2004) also calls attention to Seneca’s emphasis on discovering the ‘unseen’. I disagree strongly, though, with Toulze-Morisset’s contention that the work has only a loose structure. Williams (2012, e.g. 27, *et passim*) also emphasises the importance of the idea of changing modes of seeing.

from what is open to sense perception. The first such departure is what I shall call the ‘move underground’ – first seen with the underground channels/caverns theory (and then again, in the flood account, with the idea of submarine reserves of water). Significantly, we find this move underground in almost every book of the work (cf. 4a.2.26; 5.4.1; 6.7.5) – or, where we do not find it (presumably because the phenomenon in question occurs in the atmosphere) we generally find a corresponding move *upwards* (4b.3.1; 7.9.4ff; 1.2.10ff.; 2.13.1f).²⁶ In either case, what is significant about this move is that it takes us, in a very literal sense, beyond what can be directly perceived by the senses.

Of course, while one may not *actually* be able to perceive such causes, such things remain in principle perceptible (indeed, the digression in book 5 describes Philip’s men encountering precisely these sorts of underground caverns (5.15.1ff)). Subsequently, though, Seneca begins to take us beyond the range of what actually *can* be perceived. This is initially brought about through what I have called the ‘expansive move’. In book 3 we first saw this through Seneca’s introduction of the theory of elemental exchange, which introduced the idea of nature being a vast *interconnected* system: elemental regions of earth, air and water all feeding into and balancing each other. Indeed, it was our failure to take account of the interconnected nature of the wider system that led to our initial surprise at the constant flow of river water. A little later we see yet another expansive move, when Seneca draws our attention to regularity not just in terrestrial, but also *astronomical* cycles (cf. the reference to the overall shape of the earth, and then the influence of celestial bodies in the flood account). What these ‘expansive moves’ represent, I suggest, is a second and more significant departure from what is perceptible. For, while each *part* of this complex web of causes is in principle open to perception, the fact is that to take account of the *whole* system in the way that Seneca urges us does in a very real way require us to shift from a sensory to an intellectual mode of perception: one really cannot see the entire world at once.

This process of abstraction culminates, however, with the introduction of divine reason. In fact, it is a culmination of this process in two senses. First, it can be seen as the ultimate end-point of the ‘expansive’ process, since Seneca shows us that divine reason coordinates the entire *cosmic* system. In addition, though, the introduction of reason represents the conclusion of the process of abstraction; for reason itself is not *perceptible via the senses*. Of course, as a Stoic, Seneca believes that reason has a corporeal basis.²⁷ Nevertheless, it

²⁶ For full discussion of these upward/underground moves in their respective contexts, see the appendix to this chapter.

²⁷ *Ep.* 106.5.

remains the case that, in Stoic thought, reason is at the very least *invisible* (thus eluding what was widely thought to be our keenest sense²⁸) and may well have been thought of as undetectable to all the senses.²⁹ Seneca, in fact, suggests just this near the end of book 7:

Ipse qui ista tractat, qui condidit, qui totum hoc fundavit deditque circa se, maiorque est pars sui operis ac melior, effugit oculos: cogitatione visendus est. Multa praeterea cognata numini summo et vicinam sortita potentiam obscura sunt, aut fortasse, quod magis mireris, oculos nostros et implent et effugiunt, sive tanta illis subtilitas est quantam consequi acies humana non possit, sive in sanctiore secessu maiestas tanta delituit, et regnum suum, id est se, tegit, nec ulli adytum dat nisi animo. Quid sit hoc sine quo nihil est, scire non possumus; et miramur, si quos igniculos parum novimus, cum maxima pars mundi, deus, lateat!

He who manages all this, who created it, who laid the foundations for it all and surrounded himself with it, and who is the greater and better part of his creation, he eludes our sight and must be perceived by thought. Also, many things that are related to the supreme deity and have been assigned power akin to his are obscure; or perhaps, what may surprise you more, they both swamp our vision and elude it, whether they are so insubstantial that human sight cannot perceive them, or such greatness hides itself in holier seclusion, concealing its kingdom, that is, itself, and granting access to nothing except the mind. We cannot discover what this thing is without which nothing exists; and yet we are surprised that we know too little about some mere fires, when the greatest part of the world, god, is hidden! (7.30.3-4).³⁰

Again, this process of abstraction is something we see with remarkable regularity across all eight books of the work. Indeed, it is worth re-emphasising that each and every extant book of the work ends with some reflection on the role of divine reason in some form (see, again, the appendix to this chapter). Without fail, therefore, each book culminates with both the most profound, and the most abstract, account of causation.

While this regularity in Seneca's methodology is already significant considering traditional accusations of disorder in the *Natural Questions*, the particulars of this methodology turn out to be doubly significant when we consider the work's relationship with the Platonist debate outlined in the previous chapter.

To begin with, Seneca explicitly associates the investigation of 'hidden' causes with the goal of separating mind and body. He does so, moreover, at a crucial point in the text – at the

²⁸ E.g. *Ep.* 124.5

²⁹ See *SVF* 2.794, where Alexander of Aphrodisias argues against the soul being a body (presumably targeted against the Stoics), since if it were a body it should be perceptible by at least one sense – but is not. If the Stoics did not think this, though, the argument would simply not stick.

³⁰ This follows shortly after a passage in which Seneca also comments on the imperceptibility of (or at least the difficulty of perceiving) the *human* mind (7.25.2). Cf. again *SVF* 2.794, which seems to suggest that Seneca was not alone in thinking that reason eludes the senses completely.

end of the preface to book 3 – a passage which is arguably the clearest statement of purpose that we find anywhere in the work:

Ad hoc proderit nobis rerum inspicere naturam: Primum discedemus a sordidis; deinde animum ipsum, quo summo³¹ magnoque opus est, seducemus a corpore. Deinde in occultis exercitata subtilitas non erit in aperta deterior.

For these reasons it will be useful for us to investigate nature: first, we shall leave behind what is sordid; next, we shall keep our mind, which needs to be elevated and great, separated from the body; next, when our critical faculty has been exercised on hidden matters, it will be no worse at dealing with visible ones. (3 pref.18)

As we saw in the previous chapter, the goal of separating mind and body seems to address the sort of concern raised by the anonymous commentator on the *Theaetetus*. Now, though, we can see with greater clarity how precisely Seneca hopes to bring this about: through a carefully structured study of nature, one that, in particular, directs the mind towards ‘hidden’ causes.

Even more significant, though, is the fact that the methodology Seneca employs (and the ‘separation’ it is supposed to achieve) bears a striking resemblance to one which is advocated by Platonists.³² Broadly following the educational programme set out in Plato’s *Republic*, Platonists were committed to a carefully structured curriculum that was, over its course, designed to lead the mind of the budding philosopher away from the sensible world towards the intelligible.³³ For this purpose, as Plato had suggested, the *mathematical* sciences were seen as especially useful, in large part because of the way mathematics encourages us to think

³¹ While most MSS read *summo* (followed by Hine here), some have *sano*, which is adopted by Vottero, and by Oltramare, which Corcoran (who follows Oltramare’s text) thus renders “Second, we will free the mind – and we need one that is *sound* and great – from the body” (my emphasis). In support of *sano*, Vottero (149) points out that Seneca elsewhere associates *sanitas animi* with *sapientia*. However, it is not immediately obvious that *sapientia*, properly speaking, is what Seneca is concerned with here. Rather, he seems to be describing a quite specific process related to the study of nature – namely, the separation of body and soul. Accordingly, *summo* seems much better to reflect what is being described in this passage, especially when the process being described here is linked (as I think it should) with the image of the soul flying up in to the heavens in the preface to book 1.

³² Codoñer, on the other hand, suggests that the methodology of abstraction originates from within Stoicism. She highlights Seneca’s 88th Letter, which discusses the division of Stoic philosophy, and notes that Seneca divides physics into the corporeal and the incorporeal (88.16). Codoñer takes this to imply that the aim of physics is to proceed from one to the other. Even according to her suggestion that the ultimate end of physics is knowledge of god, however, it is difficult to see what such a progression would achieve. Even god is not, according to the Stoics, incorporeal. Nor would such a reading make sense in the scheme of Seneca proceeding to ever more profound accounts of causation. The Stoics, of course, thought that only bodies could act. Thus, a transition from corporeal to incorporeal – far from representing a move towards a more profound account of causation – would represent a move into things that cannot cause anything *at all*.

³³ Esp. *Rep.* 521c ff. For evidence and discussion of this educational programme among Platonists, see Boys-Stones (*forthcoming*), ch. 16.

in abstract terms.³⁴ By pursuing these studies in abstractions, Platonists believed that the agent's soul could gradually be purified of sense-perception (a goal, indeed, that is sometimes described as a separation of soul and body – e.g. *Phaedo* 79a ff.) This purificatory role is made clear in the following from Alcinous and Plutarch:

The introductory ceremonies, so to speak, and preliminary purifications of our innate spirit, if one is to be initiated into the greater sciences, will be constituted by music, arithmetic, astronomy, and geometry... (Alcinous, *Didaskalikos* 28.4, trans. Dillon)

In all of the so-called mathematical sciences there appear traces and images of the truth of intelligibles, as if in smooth and undistorted mirrors. According to Philolaus, geometry especially, being the principle and mother-city of the rest, turns and leads the intellectual capacity upwards – cleansed, so to speak, and gradually set free from perception.

(Plutarch, *Table-Talk* 8.2, 718E, my trans.)

An important thing to note here is that this process of purification happens *before* the philosopher directly apprehends the Forms. As Alcinous says, the purification via the mathematical sciences is “introductory” and “preliminary”, preceding initiation into the greater sciences (i.e. dialectic, the final stage of the philosopher's education through which, and *only* through which, one can ultimately get a glimpse of the Forms). Similarly, Plutarch says it is *geometry* (again, not dialectic) that purifies, and ultimately releases us from perception.

However, while it was the mathematical sciences *par excellence* that the Platonists saw as useful in this way, it also seems that the study of *nature* was thought able to play an analogous role – provided it was pursued in a specific way:³⁵

In this way most of all the philosopher seems to be different from the doctor, the farmer, or the flute player. For them it is enough to consider the very end of the causal sequence. For the last cause can be seen along with its effect: swelling or embolism in the case of fever; blazing sun after a storm in the case of corn-rust; the inclination and bringing together of pipes for a low tone; and this is sufficient for the craftsman to do his proper job. But for the natural philosopher, who pursues truth by means of contemplation, the cognition of last causes is not the end but the *start* of a journey to the first and

³⁴ As we see in Plato's *Line* (esp. *Rep.* 510d), thinking about mathematics engages δίανοια – a cognitive faculty whose objects are precisely abstract versions of (for example) sensible geometrical figures (rather than νόησις, which is used in dialectic to grasp the Forms themselves). It should be added that mathematics is also seen as useful because of the way it takes the Forms as first principles in an especially direct way, compared to other 'sciences'.

³⁵ Indeed, later in the passage of *Table-Talk* referred to above, Plutarch goes on to tell an anecdote about Plato scolding his pupils for applying geometry within the practical sphere, building certain mechanical devices. Plato is said to have remarked that “the advantage of geometry was dissipated and destroyed, since it slipped back into the realm of sense-perception instead of soaring upward”. It is especially important for the Platonists, then, that when studying such things (and presumably the same can be said for physics) it is vitally important that one pursues them only in a carefully prescribed way – indeed, precisely via the methodology of abstraction.

highest causes. For this reason Plato and Democritus, when they were seeking the cause of heat and heaviness, rightly did not stop their account with fire and earth, but went on carrying back sensible things to intelligible principles until they arrived at, as it were, the minimal seeds.

(Plutarch *On the principle of Cold*, 948BC, my trans.)³⁶

As we can see here, the study of nature can, on the Platonist view, provide a useful starting point for the process of abstraction. This process, as we can also see, proceeds along carefully circumscribed lines: starting from sensible phenomena, we then ‘journey’³⁷ back up the causal sequence, arriving eventually at intelligible causes. Provided we pursue the study of nature in this way – moving from naive to profound, from sensible to abstract causes – it seems that we can achieve a similar sort of purification as is usually achieved through to the mathematical sciences.

In fact, Plutarch clearly means what he says here; for, as has sometimes been noted, he often works along precisely these methodological lines. One good example of this is his dialogue *On the E at Delphi*. Attempting to discover the meaning of the ‘E’ dedicated in Delphi, one of the first³⁸ suggestions (attributed to a ‘Chaldaean stranger’) is that the E represents the sun (since εἰ is supposedly the second of seven vowels, and the sun is the second planet). Initially, then, a ‘physical’ explanation of the E is proposed. From here, the interlocutors then try out a number of semantic explanations (a move, then, to *words* rather than physical things)³⁹ before, significantly, coming to a *mathematical* hypothesis.⁴⁰ Finally, the investigation culminates with a theological/metaphysical explanation: E, it is suggested, means “thou art”, which we address to Apollo as ‘being’ – in the full, Platonic sense. Here, then, we see Plutarch putting his methodology into practice, proceeding from naive to profound, sensible to intelligible explanations.⁴¹

³⁶ On the methodological importance of this passage see Sierksma-Agteres (2015), esp. 66ff. For the propaedeutic role of the study of nature in Platonism, see Meeusen (2015) and also Van der Stockt (1992).

³⁷ On the significance of the concept of a ‘journey’ (πορεία) here, see again Sierksma-Agteres (2015).

³⁸ The first in time, if not in narrative sequence (since the encounter with the Chaldaean stranger precedes the dramatic meeting). The first suggestion sequentially comes from Lamprias, who suggests that the E, as the fifth letter of the alphabet, is supposed to represent the original five sages. Ammonius, though, subsequently rejects this as mere pseudo-history. Taking the narrative order as methodologically primary, it could be that this ‘historical’ theory represents a kind of pre- or non-philosophical account. Cf. Seneca’s recurring critique of historians (3 pref. 5-7; 4a pref. 21; 4b.3.1; 7.16.1-3) as well as his general tendency to begin the investigation with ‘early’ views – see appendix to this chapter.

³⁹ The semantic theories revolve around different interpretations of ‘εἰ’ *qua* the Greek ‘if’. Namely, that εἰ either represents: the ‘if’ that we use when we ask the oracle *if* we should do something; the ‘if’ that we supposedly use in prayers to the god; or, finally, the ‘if’ that is indispensable in logic.

⁴⁰ Namely, E = the fifth letter of the alphabet, and five represents an important number in mathematics, philosophy and music, along with physiology.

⁴¹ For more detailed analysis of the structure in *De E*, see Ferrari (2010) – who argues that the progression is from historical, to Stoic, to Pythagorean, to Platonic interpretations – and Lernould (2006) – who sees the progression as: history, (scientific) astronomy, (traditional) religion, mathematics-physics (with further subdivisions) and finally theology. For structural similarities in Plutarch’s *De facie*, see Dillon (1988). See also

It would seem, then, that there are some striking parallels between Seneca's approach to the study of nature and the methodology advocated by the Platonists. Seneca's approach mirrors the Platonists' both structurally (an aetiological investigation structured around increasingly abstract and powerful accounts of causation) *and* in the supposed outcome that such an approach is supposed to bring about (a kind of psychic purification).

Now, I am by no means suggesting that Seneca believes that a study of nature structured in this way will lead to the cognition of *Forms*. Of course, some scholars have read the *Natural Questions* with Plato's metaphysics in mind, precisely drawing attention to motifs such as the separation of soul and body, and the *Phaedrus*-like account of the soul flying up into the heavens in the preface to book 1, as evidence for Seneca's sympathy for the Platonic worldview. While I have already argued against such an interpretation,⁴² a further point that can be added here is that, even in the preface to book 1, it is unquestionably the *physical* cosmos into which the soul is depicted as flying:⁴³ it is "the settings and risings of the stars, and their differing but harmonious paths", not the Forms, at which the disembodied soul gazes. Clearly, then, Seneca locates this activity and its outcome squarely *within* the physical cosmos.

What I suggest Seneca *is* doing, however, is acknowledging that the Platonists are on to something when they suggest that certain types of intellectual activity can achieve a therapeutic effect – namely, a certain distancing of mind and body. In particular, he seems to agree that intellectual activity that abstracts away from the immediate objects of sense-perception can help to bring this about. However – and this is part of his dialectical point – you do not need to go *beyond* the physical cosmos in order to achieve this. Indeed, as we have seen, the Platonists themselves seem to suggest that the 'purification' of the soul happens *before* the agent gets to the Forms. Accordingly, Seneca's point will be that, for a Stoic as much as a Platonist, a carefully structured study of nature should be able to achieve a certain distancing of mind from body.

Boys-Stones (1997) on Plutarch's progression towards ever *truer* (or at least more likely) causes in *De prin. frig.* – albeit, in this work, stopping short of the ultimate metaphysical step.

⁴² See Introduction and Chapter 1.

⁴³ As is also noted by Setaioli (2007), 355; Bonazzi and Bénatouil (2012), 8, 11. Cf. Reydams-Schils (2010, 202) for the same point elsewhere in Seneca's work, and Bénatouil (2013, 157) regarding Epictetus' and Marcus Aurelius' comparable use of Platonic themes in their work.

In fact, there is evidence elsewhere in Seneca's corpus that he may already⁴⁴ have been thinking along these lines – in terms, that is, of the potential benefits of what might be called a Platonist 'mode' of intellectual activity. At the end of Letter 58's discussion of Platonist ontology, Lucilius asks what benefit is to be gained from thinking about Plato's Forms. Seneca initially says that they merely provide a kind of intellectual amusement; but he goes on to argue that it is a useful exercise nonetheless. Meditating on Plato's ontology, Seneca suggests, helps to highlight the insignificance of material possessions.⁴⁵ While clearly not accepting the existence of Forms, he nevertheless seems to suggest that Plato's particular mode of thinking – thinking, that is, in entirely abstract terms – can in itself bring about a therapeutic effect. In a similar move, and one that parallels the *Natural Questions* even more closely, Letter 65's discussion of causes is brought to a halt by an objection from Lucilius, who again asks what the point is of these abstract technicalities. Thinking about these matters, Seneca maintains, can "elevate and relieve the mind, which, being burdened by its great load [sc. the body], desires to be set free" (65.26).⁴⁶ Again, Seneca by no means accepts Plato's ontology – in fact, in what follows he clearly redirects our thinking away from Forms and towards the physical cosmos, clearly seeing this as the proper object of this kind of contemplation (65.16-19). Again, though, Seneca seems to recognise that there is something to this abstract *mode* of thinking that can, indeed, bring about a certain distancing of the mind from the body.

Why, though, should a Stoic such as Seneca think that he can exploit this Platonist methodology? In the Platonist system, of course, the methodology has a clearly defined function: to lead the mind away from the objects of sense-perception so that it might grasp the Forms. This so-called 'purification', according to the Platonists, is necessary because the Forms are not only inaccessible to the senses, but the use of sense-perception actually prevents one from grasping them. As an empiricist and material monist, Seneca obviously cannot have precisely the same motivations in mind.

However, the Stoics have their own reasons for wanting to distance us from the senses and the body. Although epistemically reliant on them, the senses are also the primary means

⁴⁴ I do not mean here to make any judgement about the relative dates of the Letters and the *Natural Questions*, but merely that Seneca was apparently toying with this line of thought elsewhere as well. For the question of dating, see Griffin (1976), esp. 395-411; Marshall (2013); Williams (2014).

⁴⁵ *Ep.* 58.25-7.

⁴⁶ Trans. Inwood. Interestingly, in this very Letter Seneca may be employing something not unlike the methodology of abstraction, since he starts from Aristotle's *material* cause and gradually works up to Platonic first principles. In this case, however, this may simply reflect the way in which Aristotle sets out his 'four causes' (i.e. material, then formal, then efficient, then final), and then Seneca's strategy of presenting Plato's causes as a kind of addition on top of this scheme.

by which human rationality becomes corrupted;⁴⁷ the body, meanwhile, can become a mere conduit for irrational desires. In this situation, means which help to bring about a certain ‘distance’ between mind and body might have seemed like an appealing idea – all the more so considering the nature of the Platonist critique (which we shall return to in a moment). Seneca, I suggest, seems to have realised this. While, it is true, the process of separating mind from body might mean something slightly different for the Stoics (they cannot, for instance, think that the process results in a literal loosening of the soul from the body) there seems no reason why this methodology could not achieve something analogous for the Stoics. Namely, by gradually abstracting away from what is open to sense-perception, the mind’s focus can be diverted away from bodily distraction, resulting in a kind of separation of mind and body. While maintaining some technical disagreement over its effect, Seneca can legitimately, and usefully, adopt the Platonists’ ‘methodology of abstraction’.

4. Seneca’s response to the Platonists

How precisely, though, does this ‘separation’ help Seneca with the problem posed by the Platonists? To understand this, we need again to think about the nature of the problem and its relationship to the Stoic argument from οἰκείωσις. If we recall, Anon. argued that οἰκείωσις is unable to do the job that the Stoics assign to it. Namely, it is incapable of producing the attitude of complete impartiality to all rational beings, and ultimately the cosmos, that is required to maintain the Stoic identification of the ethical good with the wellbeing of the cosmos as a whole. In particular, Anon. drew attention to the fact that most people cannot even get beyond the bias they have towards their own *bodies* – a bias that Seneca also seems to recognise as an obstacle in Letter 120.

The Stoics for their part would claim that this attachment to our bodies is not a necessary state of affairs, but merely the result of the rational corruption that occurs in the process of our development. From the moment of birth, all agents act to preserve their bodily wellbeing – and at this stage in their development such actions are entirely appropriate since, as a child, one’s ‘nature’ simply *is* one’s bodily constitution.⁴⁸ Subsequently, though, the development of rationality is supposed to transform our source of motivation, whereby the agent ought to come to see themselves as a rational being integrated within a wider community of rational

⁴⁷ D. L. 7.89: “When a rational being is perverted, this is due to the deceptiveness of external things or sometimes to the influence of associates” – where “external things” presumably denotes precisely that which comes in via the senses. Corruption from our associates, it should be noted, also comes in through the senses. Cf. *SVF* 3.229a.

⁴⁸ Seneca *Ep.* 121.15-16

beings. The trouble is, the Stoics would say, most agents precisely fail to make this transition – getting stuck, as it were, in their juvenile value system, and thus continuing to regard mere bodily wellbeing as the proper basis for value-judgements.⁴⁹

Nevertheless, Anon.’s criticism has considerable force for the simple reason that pretty much everyone *does* prioritise their body in this way. However, in this situation, a good strategy for the Stoics would be to show how one might go about minimising this sense of bias we have towards our bodies, thereby making the Stoic claims more plausible. And this, I suggest, is precisely what we find Seneca doing in the *Natural Questions*.

But, as we have seen, there was also another prong to Anon.’s attack: not merely that everyone is helplessly over-attached to their bodies, but also that even *if* οἰκειώσις could be extended beyond the body, it could certainly not be extended indefinitely in the way the Stoics require. As we have seen, though, Seneca does not merely say that the study of nature will help to separate our minds from our bodies; he also seems to say that the study of nature can, in addition, actually *promote* our sense of affinity with the cosmos. We saw this especially in the preface to book 1, in which, I argued, Seneca’s description of coming to view the cosmos as one’s ‘possession’ and as ‘relating’ to oneself strongly recalled the conceptual vocabulary of οἰκειώσις.

But how is this supposed to be brought about by the aetiological scheme I have described? As it happens, I think the answer is pointed to by an important detail in this very same preface. In particular, what I think is significant here is the fact that the agent who is described as experiencing this heightened sense of οἰκειώσις towards the cosmos is, in Seneca’s artistic description, nothing other than a *disembodied soul*. A large portion of this preface, if we recall, is taken up with Seneca’s description of the soul of one who studies nature soaring up into the heavens, gazing at the stars and consorting with the divine. What is especially significant, though, is that immediately before the part of the preface referred to above – that is, just before he says that such a soul will experience a heightened sense of οἰκειώσις towards the cosmos – Seneca makes an important qualification of these statements, saying: “Up above there are vast spaces, which the mind is allowed to enter and occupy, *provided that it takes scarcely anything of the body with it*” (*si secum minimum ex corpore tulit* (1. pref. 11, my emphasis)). Seneca’s point, then, seems to be that it is precisely *by* minimising our sense of attachment to the body that we *can* boost our sense of οἰκειώσις towards the cosmos.

⁴⁹ For the problem of becoming over-attached to juvenile sources of motivation, see esp. Aulus Gellius, *Noct. Att.* 12.5.7 (= *SVF* 3.181); cf. *SVF* 3.229.

How precisely, though, is this supposed to work? What I think Seneca realises is just what was said above: that is precisely our over-attachment to our bodies that causes οικείωσις to, as it were, stall. Due to the persuasiveness of things like pleasure, most agents make the mistake of identifying the body as the locus of value, thus viewing the wellbeing of the body alone as the standard for what should be considered *good*. What Seneca hopes, I suggest, is that by bringing about this sense of ‘separation’ from the body, he can provide the agent with some perspective – a certain degree of ‘critical distance’ from their body – giving them the opportunity to consider the world around them in a way that is not, for once, refracted through the prism of the body.

But the exercise becomes especially powerful in the context of Seneca’s physical investigation. For, as we have seen, over the course of the methodology of abstraction Seneca gradually reveals the most profound cause in nature: divine reason. But, considering the process of ‘separation’ that accompanies this methodology, what this means is that our discovery of divine reason in nature coincides with the point when we are, in a sense, *most* detached from our bodies – when our minds are most isolated. What this serves to do, I suggest, is to confront us with the rational character of nature at just the point when our attention has been drawn to our *own* quintessentially rational nature. In other words, what the exercise achieves is to highlight vividly what we and the cosmos *have in common*.⁵⁰ Seneca, indeed, seems to suggest that this is precisely what is going on:

Cum illa tetigit...hoc habet argumentum divinitatis suae quod illum divina delectant, nec ut alienis, sed ut suis interest.

When it has reached those regions...It has this proof of its *own* divinity, that it takes delight in the divine and enjoys it not as someone else’s possession but as its own. (1 pref. 12, my emphasis).

This point is subsequently reiterated when, at the climax of his account of the soul’s celestial sojourn, Seneca says that “[t]here the mind at last learns what it has long been inquiring into; there it begins to know god...what is the difference between god’s nature and our own? The mind is the superior part of us; in him there is nothing apart from mind” (1. pref. 13-14). The soul realises, in other words, that there is no fundamental difference between man and god: they are both quintessentially rational beings.⁵¹

⁵⁰ A similar point – that the study of physics leads to an appreciation of our relationship to the divine principle – is made by Reydam-Schils (2005a), 41-2. Cf. Reydam-Schils (2005b), 582.

⁵¹ I do not agree with Inwood (2005a, 192) that this amounts to a negative evaluation of man’s status – namely, because while god is nothing but reason, we are a mixture of mind and body. On the contrary, I suggest Seneca’s point is this: if the only difference between us and god is our bodies, how much less important does

In sum, by first ‘separating’ our minds from our bodies – which allows us to transcend our ordinary body-oriented view of the world, and draws our attention to our own fundamentally rational natures – and then confronting us with the rational character of nature *itself*, Seneca strives, I suggest, to create the psychological circumstances where one’s sense of οἰκείωσις towards the cosmos might, indeed, be fostered.

*

At this point it is worth pausing to reflect back on what was said in the Introduction regarding some broad similarities between my own account and that put forward by Williams in his recent monograph. If we recall, one of Williams’ central contentions is that the physics in the *Natural Questions* fosters what he calls ‘the cosmic viewpoint’. Although, as noted in the Introduction, it is not entirely clear what Williams takes this goal to consist of, what I have suggested above – that the physical investigation serves ultimately to bring us into closer union with the cosmos – nevertheless seems to bear some resemblance to Williams’ idea. I hope, however, that what I have argued actually serves to develop some of Williams’ suggestions.

One area in which I hope it has done so is with respect to Seneca’s methodology. Williams rightly suggests, I think, that the physical theories that Seneca explores serve to draw the reader’s mind out into the cosmos, though I believe the means by which this is achieved is actually much more sophisticated than Williams realises. Williams contends, if we recall, that the cosmic viewpoint is fostered through the artistic tendencies of the theories Seneca explores, since “whatever the merits or plausibility of individual theories, each in its own way projects an integrated vision of nature’s workings”.⁵² However, if the foregoing is correct, then Seneca’s choice of theories is much less ad hoc than this would indicate. It is not the case that Seneca simply assembles theories that individually serve to portray the cosmos as an integrated system. Indeed, as I have suggested (and shall demonstrate further in the appendix to this chapter) theories near the beginning of the investigation actually portray (from a Stoic point of view) a decidedly partial and naive view of the cosmos and its workings. The ideas that rivers are replenished by rainwater or by water flowing back from the sea, for instance, simply fail to take account of the wider causal system in which natural

this make our bodies seem (and, correspondingly, how much more important our minds)? Indeed, in general, I do not perceive the pessimistic tone that Inwood does in this work. If Seneca does show ‘epistemic humility’ at times, this does not take away from the positive, and indeed transformative, benefit that Seneca says we can get from studying nature. On the allegedly Platonising description of the Stoic god here, see Chapter 1.

⁵² Williams (2012), 18-19.

phenomena occur. Instead, building on the ideas of Waiblinger and Codoñer, I have suggested that theories are actually arranged in a carefully contrived sequence, which serves to take us *from* a partial view of the world *to* an ever more expansive, integrated and sophisticated one. This being the case, though, the merits and plausibilities of individual theories turn out to be highly significant. Theories are chosen and arranged by Seneca not just because of the ‘integrating’ tendency that they *individually* convey (and, as I say, many theories do not convey this) but rather because of the role they play at a specific stage in the overall trajectory of the investigation – a trajectory which is ultimately structured, I have argued, according to the Platonist-inspired ‘methodology of abstraction’. While I do, therefore, to some extent agree with Williams about the overall goal of Seneca’s physical investigation – fostering something which might be called ‘the cosmic viewpoint’ – I nevertheless think that Seneca’s methodology is both more organised, and much more *philosophically*-driven, than Williams supposes.

What is more, the foregoing may also help to clarify just what this ‘cosmic viewpoint’ means in the context *Natural Questions*. The idea of taking the view of the cosmos – sometimes referred to as the ‘view from above’⁵³ – is in fact one which has been explored before in the context of post-Hellenistic Stoicism. Sellers, for example, considers instances of this motif in the work of Marcus Aurelius, though sees it only as a kind of therapeutic (or ‘spiritual’) exercise, practised in order to “devalue human anxieties and concerns”.⁵⁴ However, while the physical investigation in the *Natural Questions* undoubtedly serves a therapeutic function,⁵⁵ the goal of achieving what Williams calls the cosmic viewpoint (though which Seneca himself phrases as an escape from oneself) seems to be much more substantive: a goal in its own right, not merely an instrument to some other end (e.g. to alleviate anxiety). Williams, I think, recognises this – though as I noted in the Introduction, his description of the cosmic viewpoint leaves questions unanswered about the precise significance of achieving this perspective, and how this goal sits within the broader framework of Stoic ethical theory.

What has been said in this chapter, however, presents one way of cashing this idea out in philosophical terms – terms, moreover, that can be made perfect sense of within existing Stoic ethical theory. What achieving the ‘cosmic viewpoint’ means, I suggest, is not merely viewing events in one’s life from a detached perspective, as Sellers suggests is the case in

⁵³ On which, and its presence more widely in ancient philosophy, see Hadot (1995), 238-250.

⁵⁴ Sellers (2003), 150ff., esp. 153.

⁵⁵ More on this in Chapter 5.

Marcus. Rather, to achieve the cosmic viewpoint, if we call it that, is to come to see oneself and one's ethical wellbeing within the context of, as being intimately bound up with, the cosmos as a whole. As we have seen, this idea is in turn grounded in the Stoics' theory of οἰκείωσις, whose end-point is precisely when we come to see the entire community of rational beings, the cosmos included, as the context in which we locate our moral decisions. Insofar as what Seneca tries to foster can be described as a 'cosmic viewpoint', then, it is because, having achieved this perspective, one takes the cosmos as a whole as the ultimate reference point for determining moral value.

*

If I am right about what Seneca is doing in the *Natural Questions* – trying to foster a greater sense of affinity with the wider community of rational beings – it is interesting to note that he was not the only Stoic in this period to attempt something of this sort. Indeed, Seneca's approach finds a number of striking parallels in a famous passage of the Stoic Hierocles. Here Hierocles describes an exercise which, like Seneca's, seems designed precisely to help us to expand our realm of self-interest. To do so, he asks us to imagine ourselves surrounded by a series of concentric circles, with each successive circle representing increasingly distant relationships – family, deme, citizen, with the largest circle encompassing the whole of humanity. He then bids us concentrate on 'drawing the circles together', encouraging us to regard more distant classes of people as more closely related to us – non-family members as part of our family, non-citizens as fellow citizens, and so on.

An interesting feature of the exercise, though, and one that creates an even stronger parallel with Seneca, is where Hierocles places the body in this scheme. Near the start of the passage he says:

πρῶτος μὲν γὰρ ἐστὶ κύκλος καὶ προσεχέστατος, ὃν αὐτὸς τις καθάπερ περὶ κέντρον τὴν ἑαυτοῦ γέγραπται διάνοιαν· ἐν ᾧ κύκλῳ τὸ τε σῶμα περιέχεται καὶ τὰ τοῦ σώματος ἔνεκα παρειλημμένα. σχεδὸν γὰρ ὁ βραχύτατος καὶ μικροῦ δεῖν αὐτοῦ προσαπτόμενος τοῦ κέντρου κύκλος οὗτος.

The first and closest circle is that which each person draws *around* his own mind, as the centre: in this circle is enclosed the body and whatever is employed *for the sake of* the body. For this circle is the shortest and *all but* touches its own centre.

(Hierocles, *ap.* Stobaeus, *Anthology* 4.84.23, trans. Konstan, my emphases)

Although Hierocles says that the body comes very close to the centre, it is actually the mind alone that occupies this position. What makes this distinction especially clear is the fact that the first circle contains not only the body, but things taken *for* the body. In effect, Hierocles is asking us to regard the body as being of the same status as the external objects we pursue for its preservation. Elsewhere in Hierocles' work we find him clearly advocating the standard Stoic position that man is a combination of body and soul,⁵⁶ so there is no reason to think that he is advocating an unorthodox anthropology here. Rather, in the context of this passage, what Hierocles seems to realise is precisely what I believe Seneca is getting at: namely, that it is our over-attachment to the body and the things taken for the body that causes the process of οἰκείωσις to stall. Accordingly, in order to get ourselves back on track, we must strive to create a certain level of critical distance between mind and body.

It is unclear whether Hierocles here was reacting to the same dialectical pressures as I take Seneca to be – although it is certainly possible, given his dates (probably second century AD), and Hierocles' argument has actually sometimes been read in the very context of the criticism we find in the anonymous commentator.⁵⁷ If they are reacting to the same pressures, though, it is worth pointing out a number of advantages that Seneca's approach has over the exercise proposed by Hierocles.

To begin with, rather than simply *imagining* a distinction between mind and body, which is basically what Hierocles proposes, Seneca outlines a much more carefully worked out and theoretically grounded means to achieve this. Drawing on the Platonist 'methodology of abstraction', Seneca shows precisely how this can be brought about.

However, and specifically with regard to its success as a polemical argument, Seneca's approach is particularly effective because it is phrased in terms *that the Platonists themselves ought to accept*. It is the *Platonists* who propose the methodology of abstraction as a means of distancing the mind from the body, and they themselves admit that this can (and indeed must) take place before any cognition of the Forms occurs – thus leaving this technique open to be utilised by those who do not see cognition of the Forms as the end-point of the process. As it turns out, then, it is the Platonists themselves who provide the means to overcome the

⁵⁶ E.g. col. IV.38-9.

⁵⁷ Inwood (1984), 182-3. Inwood, however, argues that Hierocles here contributes nothing towards solving the problem of the conflict between self-interest and altruism in Stoicism. While it is true that Hierocles does not forward any novel argument about, for instance, the underlying mechanism that facilitates the extension of self-interest, I nevertheless think Inwood's judgement is overly-harsh here. It should be noted first that Anon.'s criticism is not based on a technical argument either, but is rather merely an appeal to how we do ordinarily see people behaving. Hierocles starts from a similar appeal to general experience: people *do* regard those close to them as included within their realm of self-interest. This serves as a proof of concept that some sort of 'extension' is possible. He then strives to illustrate how an extension of this tendency might be brought about.

problem raised by Anon. By turning the Platonists' own theory against them, then, Seneca constructs a highly effective dialectical response. What is more, though, he does so without having to make any serious theoretical concessions. He does not need to propose any serious alterations to the fundamentals of Stoic theory – this, he can say, is already fit for purpose. Rather, all he does is elaborate on the therapeutic means by which we – as corrupt, body-loving agents – might go about getting our natural course of development back on track.⁵⁸

Appendix: The structure of the aetiology in the individual books of the Natural Questions

What follows is a detailed run-through of the structure of the aetiology of each remaining book of the *Natural Questions*. I have consigned this to an appendix to avoid holding up the argument with such an extended (and fairly repetitive) account of each book, though its inclusion seems necessary to corroborate my point. This repetitiveness, however, should probably be viewed as welcome; for it serves to highlight the considerable consistency with which Seneca applies his methodology.

Book 4a

Book 4a on the Nile has, unfortunately, not survived in full; but even in what remains some clear methodological parallels with book 3 are visible. For instance, following the preface on the dangers of flattery that Lucilius faces in his office as procurator of Sicily, Seneca precedes the investigation proper with a review of some remarkable features associated with the river, just as in the previous book (4a.2.1-16). Also analogous is Seneca's choice to "begin with the earliest writers" (i.e. 'naive' theories⁵⁹), and again this includes poets (4a.2.17). The cause that these writers propose (that melt-water causes the Nile to flood) is, moreover, a distinctly 'material'/'mechanical' cause – much like the view that rainfall fills rivers at the beginning of book 3 – as is the subsequent view of Thales that wind holds up the flow of the river (4a.2.22-5)

The parallels continue when the next theory takes us *underground*, with Oenopides of Chius' theory that cold underground *venae* supply the Nile's flood (4a.2.26; cf. 3.9.1ff.)

In what follows, Seneca's methodology of refinement is apparent when, in the next theory (from Diogenes of Apollonia), he retains the idea of underground veins but develops it

⁵⁸ For more on the *therapeutic* frame of the study of physics in Stoicism, and indeed of Stoic philosophy in general, see Chapter 5.

⁵⁹ For the idea that the theories of early writers are 'naive', see 6.5.2: "I shall now examine these theories individually, but first of all I need to say that early views were rather imprecise and crude: people were still roaming in search of the truth; everything was new to the first investigators. Later those same views were refined..."

into a more far-reaching theory: “It is impossible for part of the earth to be dry and part full of water: for everything is pierced by passages and interconnected”. In this ‘expansive’ move, comparable to 3.10.1ff., the earlier theory of *venae* is located within the larger natural system: the whole *earth* is penetrated by channels of this sort, and, moreover, this plays a crucial role in the distribution of water around the earth as a *whole*. Indeed, as Seneca says a little later, because of these channels, Egypt can draw water from as far away as “the regions where it is always winter” (4a.2.28). The causal frame of reference is then expanded even further when Diogenes of Apollonia brings the *sun* into play, which serves as the driving force in the process of redistributing water through these channels, by drawing moisture towards itself.

Unfortunately, the text breaks off at this stage; but already there are some encouraging parallels: Seneca begins from naive, ‘material’ or ‘mechanical’ causes; he proceeds to consider causes that are not directly open to perception, before integrating these within a wider system of causes.

Book 4b

The beginning of Book 4b (a book that deals with snow, hail, and analogous atmospheric phenomena) has also been lost;⁶⁰ but again some methodological parallels are clearly visible. Where the text picks up, with the formation of hail, we are again dealing with hidden causes – though this time because they are located high *above*. Seneca himself draws attention to the imperceptibility of these causes by referring to himself as a “second rank witness” (*testibus...secondae notae*) on the matter – that is, in legal jargon, someone who has not observed the event directly (4b.3.1). This, as I argued earlier, seems to correspond with the ‘move underground’ that we find in books dealing with ‘terrestrial’ phenomena.

Seneca’s subsequent move is again familiar, as he integrates his account of hail-formation into a larger system of phenomena: just as ice and frost form at our level, Seneca explains, so hail and snow form in the clouds (4b.3.6). This is similar to his assertion in book 3 (3.16.4) that the same laws apply below as above-ground.⁶¹

After a side-argument against members of his own school who apparently believed they could predict the onset of hail (4b.6.1-7.3),⁶² Seneca moves to explain why snow is supposed to be formed nearer the ground than hail (4b.8-10). Having explained why (because air nearer

⁶⁰ For a plausible account of how the end of book 4a and the beginning of book 4b were lost, see Codoñer (1989); Hine (1981).

⁶¹ See n. 11, above.

⁶² Inwood (2005a 176-7) sees this rather strange passage as Seneca showing his methodological thoroughness: prepared to consider even stupid theories. More plausible to me seems Williams’ (2012, 160-3) suggestion that it is an injunction against superstition. On (one of) physics’ roles being to combat superstition, see Chapter 5.

the ground is warmer than higher up, where the denser hailstones are formed) Seneca proceeds to lambast those who would dispute this by claiming that “mountain tops ought to be warmer, the closer they are to the sun” (4b.11.1). In the response that follows, we see another expansive move.⁶³ To think this, Seneca argues, is to take an exceptionally narrow-minded, ego-centric view of the cosmos. “They are high so long as they are being compared with us; but when you look at the universe, the modest height of all of them is evident” (4b.11.2). Once more, then, Seneca encourages us to divert our thinking to the system of nature more widely in order to understand local phenomena. As Seneca says: “measure the world on its own scale” (4b.11.4).

Following this, Seneca moves abruptly into the book’s epilogue, which considers the misuse of snow to cool drinks. Again, I shall delay detailed discussion of this to the next chapter. For now, what is significant here is that, as in all other books, Seneca concludes with some reflection of the role of the divine in nature. Seneca explains the moral error of this practice by referring to nature’s *intention* in providing a ready supply of water.

Book 5

After a brief introduction on the definition of wind, book 5’s investigation gets swiftly underway with a theory from Democritus (5.1.2) – an early thinker again, but also an atomist, whose views are therefore quintessentially ‘mechanical’. We next encounter the familiar move underground, with the view that winds are emitted from caves (4.1). As in book 3, Seneca then introduces an analogy with the human body off the back of this move. There it was on the model of veins, here bowels. In this instance, though, while he accepts that winds can be emitted from such underground caves, Seneca cannot bring himself to accept that wind is essentially *flatulence* (5.4.2). He prefers, for the time being, to view such emissions in mechanical terms, drawing on the Aristotelian theory of ‘exhalations’: “Is it perhaps truer to say that many particles are constantly being given off from every part of the earth? When they have been packed together and then begin to be thinned out by the sunshine...” (5.4.3) – a theory which serves to expand our causal frame of reference: such exhalations are emitted from *every* part of the earth, and are set in motion (cf. 4a.28-30) by the sun.

Shortly after, though, the rejected analogy with a human being is replaced by another. Moreover, here Seneca explicitly ‘deepens’ the level of causal analysis, saying that “the

⁶³ Williams (2012, 166) also sees this as an expansive move – or rather, an example of what he calls Seneca taking the ‘cosmic viewpoint’.

following [cause] is a much more powerful and truer one” (*ceterum illa est longe valentior veriorque* – much like Seneca’s call to “look at this...more deeply” at 3.12.1; cf. also 6.16.2):

...air has a natural ability to move; it does not acquire it from any external source, but has an innate capacity for movement, among other things. Do you think that *we* have been given strength to move ourselves, but the air has been left inert and immobile, even though water possesses its own motion even when the winds are still? Otherwise it would not produce living creatures; and we also see moss growing in water and grass-like plants floating on the surface. Therefore water has some vital power. Am I talking just about water? Fire, which consumes everything, creates certain things, and—this seems incredible, but it is true—living creatures are generated by fire. So air possesses some vital power⁶⁴... (5.5.1-5.6.1)

Air – and indeed nature as a whole – is permeated by a vital force. In addition to introducing these biological connotations, and a notion of agency, Seneca also uses the elemental theory (as in book 3 (3.9.1ff)), to further expand our causal frame of reference: it is not merely one element (and thus elemental region) that has these properties, but *all* of them.

Following this, Seneca moves from speaking about the causes of wind “in general” to consider a number of winds individually (5.7.1ff.). Ostensibly, this switch from general to specific goes against the expansive tendency we have seen so far (although it should be noted that in all of the following the sun remains as the primary motivating force). However, the order in which these winds are introduced points towards their role within the standard scheme. As Seneca successively introduces first predawn breezes, then the so-called ἐγκολπίας, then Etesians, it becomes apparent that what is significant about these winds is that they blow at different *times of day*.⁶⁵ The first, obviously, occur before dawn; the ἐγκολπίας blows just after dawn (5.8.2), while the Etesians are apparently notorious among sailors because they “can’t get up in the morning” (5.11.1). Here, moreover, Seneca points out the various seasonal effects on the relative strength and duration of these winds. Much like the discussion at 3.16.1-3 of intermittent springs and the other regular cycles we find in

⁶⁴ *Habet ergo aliquam vim (vi)talem aer*. The insertion is adopted by most editors, though not by Oltramare, which Corcoran thus translates: “air has some sort of similar power” – similar, that is, to fire, which Seneca has just said is able not only self-move, but even has the ability to generate animals – a capacity also attributed to water. In support of the insertion, Hine cites 5.5.2 (*est ergo aliquid in aqua vitale*) and 5.18.1 (...*non enim ex una causa [providentia] ventos aut invenit aut disposuit, sed primum ut aera non sinerent pigrescere, sed adsidua vexatione utilem redderent vitalemque tracturis*). While this seems plausible, it should be said that the other reading does more strongly emphasise the fact that air is not merely ‘vital’ in its own right, but also vitalising: giving life to other creatures as well. We see this idea at 6.6.1-3, as well as throughout the long discussion of *aer/spiritus* in the first part book 2, esp. 2.6.6ff.

⁶⁵ Williams (2012, 185) also notes the chronological component here. I do not agree with Williams’ suggestion that we see a steady increase in the liveliness of the winds explored in this section. Seneca explicitly says that ἐγκολπίας, for instance, can be weak as well as strong (5.8.3-9.2).

nature, then, this section serves to introduce the idea of nature as a system that operates according to a regular pattern.⁶⁶

Leading into this book's central discussion, Seneca considers a number of much more powerful and destructive winds: *ἐκνεφίαι*, whirlwinds and the so-called *πρηστήρ*, a kind of fiery whirlwind (5.12.1-14.4). Here, then, we again see these surprising or 'paradoxical' phenomena clustering around the moralising passages.

Following the digression, the last part of the book is dedicated primarily to mapping and naming the winds. This can overall be seen as a continuation of the expansive tendency. Indeed, at the outset of the passage Seneca draws attention, via a quote from Ovid,⁶⁷ to the fact that the winds traverse the whole globe: they blow in Nabatea and Persia in the east, Scythia in the north, Africa in the south.⁶⁸ Next Seneca introduces Varro's twelvefold division of the compass, which, Seneca explains, corresponds to where the *sun* rises at different times in the year (5.16.3). Moreover, as he explains a little later, these divisions represent sections in the very *sky*, corresponding to astronomical regions:

Those who have said there are twelve winds have taken the view that the number of winds corresponds to the number of the sectors of the sky (*caelum*). The sky is divided into five circles that pass through the key divisions of the world: there is the arctic circle, the tropic of Cancer, the equatorial circle, the tropic of Capricorn, and the antarctic circle. In addition there is a sixth that divides the upper part of the world from the lower; for as you know, half of the world is always above us, half below. This line between the visible and the hidden the Greeks call the *horizon*, our countrymen have called it the delimiter, or others the delimiting circle. One must also add the meridian circle, which intersects the horizon at right angles. Some of these circles run at an angle and intersect the others as they encounter them. There must be partitions in the air corresponding to each of these sections. (5.17.2-4)

It is again only as we come into the epilogue that the ultimate cause of winds is revealed. Here we at last⁶⁹ learn the significance of this worldwide distribution of winds (as well as, perhaps, the temporal distribution that was discussed before the digression):

...providence did not devise winds or distribute them in different locations for one reason alone, but, first, so that they would not allow the air to grow stagnant...so that they might supply the land with rain and at the same time prevent an excess of it...so that rain can be shared out across the entire earth. The south wind drives them to Italy, the north wind forces them back to Africa. The Etesians do not allow clouds to settle in our region...And just think: grain could not be harvested if the redundant

⁶⁶ Williams also emphasises the sense of regularity that the temporal component conveys (*op. cit.*, 188).

⁶⁷ Ovid, *Met.* 1.61-66

⁶⁸ Cf. the plethora of named places at 3.19.1-26.8 which, as I suggested in n.14, may be intended to have a similar 'expansive' effect.

⁶⁹ Waiblinger (1977, 38; 51) draws attention to this 'epoptic' character in Seneca's investigation, in which the true meaning of the previous investigation is sometimes only revealed at the end.

material mixed in with what needs to be kept were not winnowed out by an air current...Just think how wind has given all nations communications with each other and brought together peoples separated by geography! (5.18.1-4).

Such constant and ubiquitous flowing of the wind provides balance to the whole natural system. Again, at this deepest level of causal analysis, Seneca draws attention to nature's *intention* behind providing winds. Providence, Seneca shows us, has precisely the benefit of the whole system in mind.

Book 6

In the books we have seen so far, Seneca introduces the concept of the *lex naturae* gradually. In book 6, however, the concept features prominently at the start. On the one hand, this might be a function of the notable increase in the presence of the divine from this point onwards.⁷⁰ More likely, though, is that it is down to the devastating effect of this particular phenomenon – which Seneca heralds as the most terrifying of all natural disasters, and which might therefore have been seen as requiring a certain amount of extra theodical justification. Seneca, indeed, stresses that earthquakes are not the work of malevolent divinities. Rather, he encourages us to see them as the result of material weaknesses (just like the frailties of our own bodies) (6.3.1), and to locate them, like the death they often result in, within the context of broader natural cycles (6.1.13: “Fate goes round in circles”). The reason we fail to see this, Seneca says, is precisely because “we grasp nature with our eyes, not our reason” (6.3.1).

Seneca then begins the investigation proper, proposing to review theories grouped according to the element responsible. Here, then, we see familiar patterns emerging. Having rejected an early ‘material’ view of Thales (6.6.1), we again encounter the ‘move underground’. Here Seneca explicitly connects this to a transition from ‘seen’ to ‘unseen’ by remarking that “if people do not believe that the gulfs of a huge sea are hidden within the earth, they are relying too much on their eyesight, and do not know how to let their minds advance beyond it” (6.7.5). Underground caves are a constant in the subsequent investigation; what varies is the element that is proposed to cause the earthquake. What emerges, though, is the significance of the *order* in which the elements are introduced: from water (6.1-8.5) and earth (10) Seneca moves through explanations based on fire (6.9.16; 6.11) before culminating with ‘breath’ (*spiritus* – equivalent, of course, to Stoic πνεῦμα (6.12.1ff)).⁷¹ Although breath

⁷⁰ As Inwood (2005a, 162 n.20) seems also to note. Cf. Codoñer (1989, 1800ff.) who sees this as fitting in with the overall structure of the work, moving from the terrestrial to the celestial and divine.

⁷¹ On Seneca's (not altogether consistent) use of *spiritus* and *aer*, see Díaz (1991). Díaz shows, though, that Seneca does generally reserve *spiritus* for where air is playing an active, causative role.

is said to be the cause endorsed by “many very distinguished writers”, Seneca soon begins to exploit its specifically Stoic connotations, using these to construe, once again, an analogy between the earth and the human body:

Our bodies are irrigated both by blood and by breath, which passes along channels of its own. We have some narrower receptacles for the soul, through which it does no more than move, and some broader ones, in which it collects and from which it is distributed to the various parts of the body. In the same way the entire body of the whole earth is permeated both by water, which functions like blood, and by wind, which one could simply call soul (6.14.1)

As well as introducing the biological model, the analogy also serves to expand the causal network (cf. 5.5.1ff) since, just like the veins in our body, the underground channels permeate, emphatically, “the *entire* body of the *whole* earth” (*totus terrarium omnium corpus*, my emphasis). Shortly after this, Seneca returns to the human body analogy to affirm that this is no *mere* analogy,⁷² but a genuine correspondence:

It is plain that the earth contains breath: I do not mean just the breath that makes it cohere and keep its parts united, which is found even in rocks and dead bodies, but I mean the life-giving breath that is vigorous and sustains everything. (6.16.1)

In doing so, Seneca introduces further emphasis on the vital aspect of nature. Indeed, just as in book 5 (5.4.2ff.) Seneca moves from a *merely* biological analogy (there digestive faculties, here veins and arteries) to one that characterises nature as a genuinely *living* thing (in both cases, we should note, this is done on the basis of the vital characteristics of *aer/spiritus*).

Subsequently, in a move we have seen repeatedly, Seneca expands the causal network yet further, now revealing how this terrestrial system also interacts with the *heavens*. Characteristically marking the transition into a deeper level of analysis (“So far I have been using lightweight arguments”), Seneca explains:

The entire heaven, surrounded by the fiery aether, the highest part of the world, all these stars, whose number cannot be reckoned, all this host of heavenly bodies, and, to omit the others, the sun, which orbits so close to us, several times larger than the entire circumference of the earth – all these draw their nourishment from the earth and share it among themselves, and are obviously sustained by nothing other than the earth’s exhalation (6.16.2)

After further explaining the proposed role of breath, and again affirming the human body analogy (6.18.6), Seneca subsequently considers one last causal possibility: that a combination of the four elements is responsible for earthquakes – the view of Democritus and

⁷² Pace Althoff, *op. cit.*

Epicurus (6.20.1 ff.). Even in Epicurus' case, however, Seneca says that breath is assigned the most important role.⁷³

Finally committing himself to the breath theory at 6.24.1, and reviewing some final theories (24.1-26.4), Seneca transitions into the book's epilogue – via, as he often does, a survey of some marvellous effect associated with the phenomenon (6.27.1-6.31.3).

In the epilogue, Seneca returns to the theme at the start: fear of death. Here again the message is the same: Seneca stresses the need to see death, like earthquakes themselves, as parts of the *lex naturae*: “Death”, he says, “is a law of nature” (*mors naturae lex est*) (6.31.12).

Book 7

After a short introduction lamenting people's lack of interest in nature, except when something unusual such as a comet appears (7.1.1-7.2.3), as well as the superstitious beliefs built up around comets (perhaps occupying a comparable place to the ‘pre-philosophical’, poetic explanations at the start of books 3 and 4a), Seneca begins book 7's investigation by distinguishing two opposing camps in cometary theory. These are exemplified by Epigenes, who thinks comets are atmospheric phenomena caused by winds or whirlwinds, and Apollonius, who believes they are types of planet.

Seneca starts with the former. He clearly views this theory as naive, and begins with a few simple criticisms based on empirical observation: comets do not match the intensity or direction of winds; nor can they account for their regular movement and long duration (7.1.1-7.9.3). At 7.9.4, however, Seneca introduces a new consideration: “if it (sc. a whirlwind) did reach the highest level, where the stars have their courses, it would certainly be broken up by the motion that turns the universe.” The orbits up there, he goes on, are “unalterable”, so the erratic motions of winds could not persist there. Not only does this objection introduce a much more technical conception of the cosmos (cf. the introduction the theory of elemental exchange at 3.9.1) but also serves to expand the causal frame of reference, now factoring in not just the motion of air, but of the heavens as well. The introduction of the heavens into the picture, however, also marks a transition, corresponding to the ‘move underground’ in other

⁷³ See n. 17 on the (apparently) uncritical reference to Epicurus' theory of multiple causation here. The conflation of Epicurus and Democritus is interesting, and could be taken as dialectical, playing into the common polemical trope that Epicurus merely plagiarises Democritus – see e.g. Cicero *De fin.* 1.17. This in itself might allay concerns about Seneca's apparent lack of criticism of Epicurus' theory here.

books (cf. the move ‘upwards’ at 4b.3.1). Indeed, from this point on, Seneca leaves atmospheric explanations behind and now focuses on astronomical causes.⁷⁴

The first of these proposes that comets are the result of planets moving into conjunction and combining their rays (7.12.1). The main problem with this theory, though, is that it erroneously restricts comets to a small part of the sky (another expansive move, requiring yet more of the cosmos to be taken into account).

Across the subsequent theories we see a showcase of Seneca’s ‘methodology of refinement’. Developing the previous theory, then, Seneca introduces one from Artemidorus, who suggests that there are actually many more than five planets, including *outside* the Zodiac. It is *these*, he suggests, that amalgamate rays to form the appearance of comets (7.13.1) – a theory that Seneca rejects in surprisingly strong terms, considering that he himself accepts a similar one later on.

Despite criticising Artemidorus, then, Seneca retains the idea of extra-zodiacal planets. He develops the idea, though, by introducing the theory of Apollonius of Myndus: that comets are not merely illusions created by the conjunction of planets, but planetary bodies in their own right (7.17.1). This, then, is the theory Seneca accepts – at odds, he is keen to point out, with his own school. Why depart from orthodoxy? Why does this theory offer a ‘deeper level of analysis’? Seneca’s reasons become apparent a few paragraphs later. Explaining why these new ‘planets’ do not fall within the Zodiac, he argues:

Who is imposing a single path on the planets? Who is forcing the divine within narrow limits?... Just think: is it not more appropriate to the world’s greatness for it to be divided into many paths as it rotates, and not to wear away one track while the rest of it lies idle? Do you believe that, in this huge, immensely beautiful body, out of the countless stars that adorn the night with their varied beauty and will not let it be empty and inactive, there are only five that are permitted to take any exercise, while the rest stand still, a static, motionless population? (7.24.1-3)

A little later, Seneca elaborates further on this idea:

Nature does not produce her creation according to a single pattern, but rejoices in variety: she has made some things bigger than others, some faster, some stronger...Anyone who thinks that nature is not entitled to do something occasionally unless she does it often does not know nature’s power. Nature displays comets infrequently and assigns them a different place, different timetables, and motions unlike the rest: she wanted to enhance the grandeur of her creation with them too. (7.27.4-5)

It is not merely that this theory explains the phenomenon best (although Seneca maintains this as well); it is also that this is the view that makes most sense when considered within the

⁷⁴ Williams (2012, 262) also notes the upwards trajectory of the theories in this book.

system of nature in its broadest terms, and, in particular, when considered in relation to the guiding intentions behind the system.⁷⁵

As we have come to expect, the close of the book sees the explicit introduction of the divine – though here spoken about in more detail and with greater religious reverence than we have seen in previous books. We have seen part of this passage before:

If we enter temples with composure, if when we are going to a sacrifice we have a humble demeanour, we straighten our toga, and we assume every mark of modesty, how much more ought we to do this when we are arguing about the stars, about the planets, about the nature of the gods...He who manages all this, who created it, who laid the foundations for it all and surrounded himself with it, and who is the greater and better part of his creation, he eludes our sight and must be perceived by thought. Also, many things that are related to the supreme deity and have been assigned power akin to his are obscure; or perhaps, what may surprise you more, they both swamp our vision and elude it.

(7.30.1-4)

Here, at the culmination of the aetiology, Seneca explicitly draws attention to the fact that at the ultimate level of causal analysis we must, indeed, engage our minds rather than our senses.

Book 1

In book 1 the themes of visible and invisible, seen and unseen, cluster with much greater concentration than in previous books. Already in the preface the theme dominates. As we saw earlier, Seneca describes physics as the branch of philosophy that “is not satisfied with the eyes” (1 pref. 1), and speaks of his own love of investigating nature “not in her public aspect, but...[in] her more remote regions” (1. pref. 3). When god is described a little later, Seneca does so in terms similar to the end of book 7, saying that god is “all that you see and all that you do not see”.⁷⁶ In addition to everything else that is important about this preface, then, it also aptly sets up a book that will be dominated by the theme of the weakness of vision.⁷⁷

The marked emphasis on this theme in book 1 may be down in part to the fact that the nature of the phenomena in question – many of which essentially turn out to be little more than optical illusions.⁷⁸ However, this unusual emphasis may also, I suspect, be to do with the

⁷⁵ Inwood (2005a, 188) also draws attention to Seneca’s justification of this theory by drawing on wider philosophical assumptions about the cosmos and the nature of stars.

⁷⁶ Once again, this counts against the Platonising reading. For the Platonists, *no* part of god is visible.

⁷⁷ On the theme of weakness of vision in this book see Leitão (1998); Berno (2003), ch. 1. See also Williams *op. cit.*, 55ff. (largely following Leitão).

⁷⁸ However, it does not seem that the emphasis can be entirely down to the nature of the phenomena. For, even in the case of phenomena that are *not* optical illusions – e.g. haloes (1.2.1ff); shooting stars (1.14.3-4) – Seneca still seems remarkably keen to draw attention to the weakness of vision.

fact that the (unusually diverse) group of phenomena discussed in this book present something of a challenge to certain features of the methodology employed in previous books. For instance, all of the phenomena described in this book already occur high up in the atmosphere, meaning there is limited scope for the typical upward/downward movements that we have seen elsewhere. Furthermore, once Seneca reaches rainbows – quite early on – all subsequent phenomena have essentially the same cause, and a relatively simple one at that: the sun reflecting from cloud. This limits Seneca’s ability to draw on an ever increasing network of causes, on biological models etc. At the same time, this is not to say that we do not see any of the features of the usual methodology. Indeed, Seneca finds some quite ingenious ways of incorporating many of them anyhow. However, the ubiquity of the ‘weakness of vision’ theme may in part represent Seneca trying to compensate for where he cannot include certain features found in other books – doing so by constantly reminding us of the need to go beyond the visible in our engagement with the world.

The investigation begins with an account of the various fires we see in the night sky – which are said, interestingly, to “hide” (*latent*) during the daytime (1.1.11). As at the beginning of book 7, Seneca begins by reviewing various superstitious beliefs that have built up around these supposed ‘portents’, again possibly representing naive, ‘pre-philosophical’ views – although here, it should be said, Seneca defends the concept of divination, albeit reserving a proper explanation to the next book (1.1-3). Subsequently, when he offers a more ‘scientific’ account, the cause he proposes is of a decidedly mechanical nature: “fires of this kind occur because the air is subject to violent friction when there is a movement of air toward another region, and it does not yield, but battles against itself” (1.1.5). These atmospheric conflicts, Seneca now explains, come about as a result of the terrestrial exhalations proposed by Aristotle – thereby expanding the network of causes to include the region of the earth as well as the air. Interestingly, Seneca also explicitly denies that the stars play a role in causing these phenomena – thereby allowing himself scope to expand the causal frame of reference with the next phenomenon.

Seneca now discusses so-called ‘haloes’ – rings that form around celestial bodies. He is keen to remind us not to rely too heavily on our senses to understand these phenomena: “These shapes are formed not far from the earth, and our sight, deceived by its habitual weakness, thinks they are located around the star itself” (1.2.3). This phenomenon, too, is given a conspicuously mechanical explanation: “When a stone is dropped into a pool, we see the water spread out in many circles... Let us think of something similar happening in the air too: when it becomes denser, it can experience a blow; when the light of the sun or the moon

or any star encounters it, it forces it to recede in expanding circles”. Here Seneca says that these haloes can form around sun, moon or stars; though it seems important that, a little later, he seems keen to emphasise that such phenomena only occur rarely around the sun or stars, and are mainly caused by moonlight (1.2.10-11).

This is important, I think, because when Seneca then moves to the next phenomenon – rainbows – it is the *sun* that is said to be the primary cause. This is significant since while the moon is the closest celestial body to the earth, the sun, on the ancient understanding, is the *second* closest. In effect, then, this represents one of Seneca’s expansive moves.

As indicated above, though, it is from here that Seneca’s usual strategies hit a barrier. As Maurach has shown,⁷⁹ across this section we see another showcase of Seneca’s methodology of refinement: he gradually builds the complexity of the theory of how clouds and sun interact; but there is little in the way of other causes that he can draw into this system. It is interesting, then, that it is precisely in this section that we see an unusually strong emphasis on the weakness of vision (although, even now, Seneca manages to integrate aspects of the usual methodology). The theme occurs several times in the discussion of rainbows. Having suggested (on Aristotle’s authority⁸⁰) that reflective raindrops are a cause of rainbows, Seneca explains how the water-droplets send back our vision,⁸¹ and notes that in some cases eyesight is too weak even to penetrate the air in front of us (1.3.7). Very shortly after this, facing an objection that questions why a multitude of raindrop-reflections look like just one rainbow, Seneca explains: “I ought to say this: nothing is more deceptive than our eyesight, not just with things that distance prevents it from examining minutely, but also with things it sees within easy reach” (1.3.9). Significantly, in what follows, Seneca draws attention to the especial inability of eyesight to provide insight into the nature of the *cosmos*:

Go back to the sun itself: this object, which reasoning proves to be larger than the whole earth, our eyesight makes so small that wise men maintained that it was a foot across. None of us sees the motion of the object that we know is fastest of all [sc. Saturn], nor would we believe it was moving if it were not evident that it had moved. The world itself glides with feverish speed and brings risings and settings round again in a moment, but none of us is aware of its motion (1.3.10).

⁷⁹ Maurach (1965).

⁸⁰ Aristotle *Mete.* 3.2, 373a32ff.

⁸¹ For, of course, the Stoics and others in antiquity held that our eyes projected what might be called ‘sight-rays’, as opposed to the modern understanding whereby light enters the eye. See D. L. 7.157. For the potential importance of visual theories in this book of the *Natural Questions*, see Bartsch (2000), esp. 82ff.

Indeed, the Epicureans (who famously posited this theory about the sun's size⁸²), Seneca might be implying, fall into all sorts of errors about the cosmos (and in ethics) precisely because of their uncritical reliance on sense-perception. We should also note that, although the risings and settings of planets such as Saturn (N.B. the *most distant* planet from the earth) that Seneca mentions here do not play a role in the aetiology per se, these could perhaps be seen as an attempt to, nevertheless, focus our attention on the cosmos at the broadest scale – a scale at which, indeed, our eyes become less useful.

Concerns with eyesight and its ability to be deceived are never far away in the following sections. 1.4.1-1.8.6 is largely dedicated to the defence of the reflective explanation of rainbows, in the first instance against those who would maintain that the colour we see really exists in the cloud, rather than being an illusion. As Williams plausibly suggests, this could be seen as directed against those who do, indeed, rely too uncritically on their eyes – all too ready to regard what they see in the clouds as having substantial reality.⁸³ In the same section, furthermore, there are numerous references to optical illusions or the ability of reflective substances to distort what we see (1.4.3; 1.5.10; 1.5.14; 1.6.2; 1.6.5-6; 1.7.1-3).

At the end of the long section on rainbows it is interesting that, drawing again on Aristotle, Seneca brings in the effects of the different *seasons* on the shape of rainbows: “Aristotle says that after the autumnal equinox a rainbow can form at any time of day, but in summer it can form only when the day is either beginning or drawing to a close”. This is not unlike what we saw in book 3 with the introduction of intermittent springs and other (including seasonal) natural cycles (cf. also 5.7.1ff, with explanation above). Here, too, this may be intended to draw our attention both to the broader range of factors that influence rainbows, and, more importantly, to the regularity with which nature operates.

There follows a relatively brief discussion of two phenomena that are closely related to rainbows: so-called rods, and *parhelia*. They have essentially the same causes, but differ only in shape.⁸⁴ Here again Seneca does not miss an opportunity to draw our attention to the propensity of our eyes to be deceived – saying, in reference to a theory about the causes of *parhelia*: “For in our experience also, when several mirrors are arranged so that one has sight

⁸² *Ep. Pyth.* = D. L. 10.91

⁸³ Williams (2012), 72ff.

⁸⁴ Interestingly, at 1.10.1, Seneca draws an analogy between rainbows, rods and haloes: “I can also express the difference between them all as follows: if you divide up a garland, the result will be a rainbow, if you straighten it out, it will be a rod”. This is not unlike the analogy drawn between frost and snow at 4b.3.6, and hence the statement at 3.16.4, where Seneca says that the ‘laws of nature’ apply as much below ground as above. The analogy between these phenomena (both in appearance and, the case of rods and rainbows, causes), then, may also be intended to draw attention to the consistency with which nature operates throughout the system.

of another, they are all filled with images, and one image comes from the real thing, but the rest are copies of images” (1.13.1).

At 1.14.1, Seneca returns to considering fires that occur in the night sky,⁸⁵ running through a dizzying variety of astonishing spectacles that were (in a less light-polluted world) sometimes visible in the hours of darkness. Seneca mentions so-called ‘wells’, ‘jars’, ‘chasms’; ‘quasi-stars’, which shoot across the sky; phenomena the Greeks called *sela*, which can manifest in a variety of ways. I tend to view these phenomena as examples of what I have been referring to as ‘paradoxical’ phenomena – particularly because, as has frequently been the case, these occur just before the book’s moralising epilogue. In the sheer *variety* of phenomena that Seneca mentions here, however, one cannot help but be reminded of the point made in the previous book: that nature “rejoices in variety” (7.27.5). By drawing our attention to this level of variety, then, Seneca may again be gesturing towards the ultimate explanation of these phenomena.

However, it is only once we reach the epilogue (via a final reminder of the weakness of vision: 1.15.6) that the divine is explicitly reintroduced into the picture. After the bizarre account of Hostius Quadra’s sexual escapades, the book concludes, as we have come to expect, with a reflection the providential intention behind the phenomenon of reflection: “what nature was thinking of when, after producing real bodies, she also wanted likenesses of them to be seen...” (1.17.1-2). The answer? The mirror provides a starting point for coming to know oneself, and the cosmos (1.17.2-4). This double function of the mirror, therefore, artistically reflects the double function of physical study itself, as, precisely, a means of knowing oneself within the context of the cosmos.

Book 2

The final book of the work, on thunder and lightning, opens with an extended preface containing a technical discussion of the nature of *aer/spiritus*.⁸⁶ The main thrust of this passage is to illustrate the unitary nature of air, as well as the *unifying* role that it plays by serving as an intermediary between the earth and the heavens. Already in the preface, then, Seneca draws attention to the wider, interconnected, system of nature. What is worth noting,

⁸⁵ For which reason it has sometimes been suggested that this book has a ring structure – Stahl (1964); Hine (2010a), 15.

⁸⁶ This passage, it should be noted, provides an invaluable source for our understanding the Stoic doctrine of cosmic *πνεῦμα*. As a result it is surprising, to say the least, that *none* of the collections of Stoic/Hellenistic fragments draws on the *Natural Questions* as a source for this theory, or, for that matter, any other aspect of Stoic physics – the *sole* exception being *SVF* 1.122, which refers to Zeno’s view on comets.

though, is that at this stage in the book he does so in purely *material* terms – outlining, in effect, the material conditions that make phenomena of the air possible.⁸⁷

Material causes persist as the investigation proper gets underway. As we have seen before, Seneca begins with early (and therefore also ‘naive’⁸⁸) explanations. Anaxagoras, in this case, believed lightning was caused by fire descending from the aether (12.3). As an alternative, Seneca then introduces Aristotle’s theory of terrestrial ‘exhalations’. Both of these theories, then, serve to bring elemental regions into interaction with each other.

As it happens, though, Seneca disagrees strongly with the former theory. The aether, he explains, is different from fire at our level: “Everything [in the aether] is ordered, and the purified fire, which has been assigned the highest place in the protection of the world, encircles the outer edge of this quite beautiful structure. It cannot descend from there...in the aether there is no room for any unstable body” (2.13.4). This response is similar to the one we saw at 7.9.4; in both cases Seneca dismisses the theory by drawing on a wider appreciation of the system of nature, and the interaction between its parts.

Nevertheless, despite ruling out descending aether as the cause for lightning, Seneca does not entirely rule out interaction between the heavens and the region below: “heat jumps across from that powerful fire to the regions below...the lowest level of the aether contains something like air, and that the highest level of the air is not unlike the lowest level of the aether...At the boundary they gradually blend their properties...” (2.14.1). This, then, serves as a convenient way of introducing the Stoic elemental theory (2.15.1), whose introduction we have seen in various books at a similar stage in the argument (cf. 3.10.1; 5.5.1), and whose purpose here, likewise, seems to be to draw greater attention to the interconnectedness of the wider system.

After briefly reviewing a number of competing material explanations, Seneca marks a shift in tone by announcing: “Now we dismiss our teachers and start to proceed independently, and from agreed points we pass on to uncertain ones” (3.21.1). Seneca’s cautiousness here clearly stems from the fact that such causes are so far removed from what is observable. It is also worth noting, however, that this statement is not unlike a parallel piece of rhetoric at 3.12.1, where Seneca asks “Let us look at this again a bit more deeply”. In

⁸⁷ Codoñer (1989, 1797) sees this passage as in part a retrospective justification of the rather diverse collection of phenomena that have gone before – all of which are, however, unified by being caused in some sense by air. Its positioning here, at the end of the work, is justified by the topic of the book – lightning – since lightning occurs in precisely the region demarcated in the passage on air. Several other scholars, on the other hand, have seen the passage in metaphorical terms – reflecting the *fatum unum* that is then thematised in this book’s central discussion of divination – Stahl (1964), 429; cf. Williams (2012), 303ff. I tend to side with Codoñer’s view.

⁸⁸ On the naivety of early theories, see n.59.

book 3, just as here, this move came just after the introduction of the theory of elemental transformation; and, just as there, his focus now turns to the complex interactions between elements that, he speculates, must be involved in the production of thunder and lightning.

Seneca's first task is to explain how fire is produced from air. To do so he draws an analogy with how fires are produced at our level (comparable to his claim at 3.16.4 (cf. 4b.3.6) that nature's laws apply just as much below, as above ground – perhaps again, therefore, drawing attention to the regularity with which nature operates). At both levels, in any case, Seneca draws on the theory of elemental transformation, explaining how force can bring about a change in elemental state. At 2.25.1, he now also introduces *water* into the equation, facing down the problem of how fire is produced if water is present. Contrary to expectations, Seneca says, even water can play a role in the production of fire. Bit by bit, then Seneca finds a contributing role for all four 'quarters' of nature: earth (through the Aristotelian exhalation theory), air and water all coordinate together to produce the fire in lightning.

From 2.27.1 we see a short excursus into the phenomenon that accompanies lightning: thunder. The explanation that Seneca gives is similar to that for lightning, again explained in terms of elements interacting: violently moving air interacting with water-laden clouds. Already, though we seem to be into the paradoxical phenomena that frame this book's central digression. Seneca mentions the fact that sometimes thunder's "occurrence makes people collapse and die; some live in a daze and completely lose their senses—we call them thunderstruck, when that noise from the heavens has deranged their minds" (2.27.3). A little later, Seneca records how thunder and lightning are sometimes produced from dry clouds of volcanic ash, clouds that "fill the air with burning fires or with winds that scour the earth" (2.30.4). In any case, paradoxical phenomena are explicitly introduced at 2.31.1 – though here Seneca uses them to finally bring the divine into the picture: "The effects of a lightning-bolt, should you wish to examine them, are amazing and leave no doubt that its power is divine and subtle". Seneca then describes some truly remarkable effects: coins or swords melted inside undamaged containers; wine casks destroyed with the wine left standing frozen solid; venomous animals robbed of their poison.

The gesture towards the divine, though, also serves as a convenient transition to the discussion of Etruscan divination that dominates much of the rest of the book. More importantly, though, it heralds a transition to the deepest level of causal analysis. Indeed, in what follows we get the longest discussion anywhere in the work of the divine and its role in causation. Seneca begins by distinguishing the Stoic view from the Etruscans, who think the

thunderbolt occurs *in order to* indicate the future. The Stoics, conversely, think that it indicates the future *because* it occurs. The former view, Seneca explains, makes god someone with “too much time on his hands”, makes him involved in too much menial detail in his organisation of the world (2.32.1-4). The point is an important one; not only does it insert a degree of intentional distance between god and destructive phenomena such as thunderbolts, but it also emphasises that god’s focus is on the *whole* rather than part (precisely where, we might infer, our attention should be). The importance of focussing on the whole continues as a concern when, shortly after, Seneca criticises the Chaldaeans for only taking account of the five planets in their predications. Seneca objects: “What else leads the experts on horoscopes into most serious error but the fact that they assign control over us to just a few stars, although all the stars overhead claim a share of us for themselves?” (2.32.7). The point, again, is that we cannot consider individual events in isolation, but must strive to view them within the cosmic system as widely as possible.

From 2.33 Seneca begins a lengthy and technical discussion of the Etruscan methods of divination. While extremely esoteric, the discussion nevertheless allows him to make some important points about fate more generally. While he denies that one sign can overrule another (“fate cannot be altered” (2.34.4)), he ultimately defends the efficacy of expiations, drawing on the Stoic notion of *confatalia* (2.35.1-2.38.4) – the idea that if one is fated to do *x*, one might also be required (and fated) to do *y* to bring *x* about.⁸⁹ As well as disapproving of their over-technical categorisations of lightning (2.39.1-2.40.6; 2.47-2.51), Seneca spends some time discussing their mythicising descriptions of the gods, such as their equipping of Zeus with different types of *manubiae* (41.1-43.2). Subsequently, though, Seneca explains these beliefs in allegorical terms, and insists that the Etruscans essentially share the Stoic beliefs about god:

They recognize the same Jupiter as we do, the ruler and guardian of the universe, the mind and breath of the world, the master and the craftsman of this creation, for whom every name will be appropriate. Do you want to call him fate? You will not be mistaken: he it is on whom everything depends, the cause of causes. Do you want to call him providence? You will be right: he it is by whose deliberation provision is made for this world, so that it can advance unhindered and unfold its actions. Do you want to call him nature? You will not be wrong: he it is from whom everything is born, by whose breath we live. Do you want to call him the world? You are not mistaken: for he himself is all this that you see, contained in his own parts, sustaining both himself and his creation. The Etruscans too believed the same, and they said that lightning-bolts are thrown by Jupiter because nothing happens without him. (2.45.1-3)

⁸⁹ On which see Long and Sedley (1987), 343; Bobzein (1998), 221ff., esp. 231-3 on this passage of Seneca.

With this list of Stoic identifications we encounter some of the strongest evidence for Seneca's theological and ontological orthodoxy. More than this, though, here he spells out in the plainest terms the causal primacy of the cosmic rationality of Zeus, "on whom everything depends...cause of causes...from whom everything is born...nothing happens without him".

After finishing off his critique of the Etruscan categorisations of lightning, Seneca returns to discussing paradoxical phenomena (52.1-53.3), which again frame the central digression (albeit here, exceptionally, not a moralising one). In the final, relatively short, section of the book Seneca considers a few additional theories on the causes of lightning, as well as confirming his own, which is in broad agreement with those of his school. At a request from Lucilius for moral benefit (2.59.1), Seneca moves into the final epilogue, placating him with another discussion of the fear of death. As always, the divine makes a reappearance here. Death, like lightning, is the product of a wider organised system and ought to be seen as part of the *lex naturae*.

*

So ends the *Natural Questions*. I hope to have illustrated the surprising consistency in which Seneca structures the aetiology of each book. Of course, I do not wish to claim that he sticks rigidly to an overly formulaic plan. Indeed, as will have been apparent, there is a certain amount of variation between the books: the presence or not of a central moralising digression; the appeal, or not, to human body analogies; the ways in which the upwards/downwards moves are brought about. Some of these variations, as we have seen, are down to the phenomenon in question; though no doubt others are simply due to Seneca's wish to avoid monotony. Nevertheless, there are striking consistencies between the books. In particular, the start from naive, mechanical and/or material causes, the gradual expansion of the causal system under consideration and, most importantly, the culmination of the investigation with some consideration of the divine seem to be the core features of the aetiology. Were there no other correspondences – though of course there are – I think this would already be significant.

Re-evaluating False Goods: The Moralising Passages of the Natural Questions

1. Introduction

In the previous chapter we focussed our attention on the aetiology of the *Natural Questions*. Rather than mere ‘doxography’, as it has sometimes been described,¹ what we instead found was an ordered and theoretically grounded arrangement of theories according to a consistent plan. This arrangement, it was argued, is guided by the central idea of ‘separating mind from body’ – an outcome that, by focussing the mind away from the objects of sense-perception, provides the opportunity for the agent to reflect on the world in a way that is not, for once, refracted through the prism of the body.

This account, however, is clearly incomplete; for as yet we have not explained what are in fact the most contentious and perplexing features of the work: the moralising passages. As we have seen, these typically address issues that seem frankly irrelevant to the aetiology, and might be thought to belong more appropriately within one of Seneca’s more straightforwardly ethical works. Indeed, it is this facet of the work that has traditionally led scholars to see the *Natural Questions* as an incoherent mess.

In Chapter 1 we saw that a number of more recent studies have striven to demonstrate that these passages are, despite appearances, artfully woven into the aetiology through complex networks of thematic and lexical devices.² As I argued, though, such approaches tend to paper over the really quite overt ways in which these passages are not especially well-integrated. I suggested there, though, that we need not necessarily take this lack of integration as a failure on Seneca’s part (nor as indicative of a fundamental bifurcation of the goals of the work).³ Rather, we should be open to ways in which this apparent sense of disconnect between the passages might, in fact, be serving a purpose within the overall scheme of the work.

Having now built up a picture of this overall scheme through our examination of the aetiology, though, we are now in a position to judge whether this sense of disconnect can be seen as serving any such purpose. Happily, I think it can. As will be argued in this chapter, the key to understanding these passages again comes down to the structure of the work. Once we take account of the structural scheme elaborated in the previous chapter, it becomes

¹ E.g. Graver (1999), 52-3.

² Stahl (1960),(1964); Waiblinger (1977); Berno (2003); Williams (2012).

³ Essentially Limburg’s (2007) position.

apparent that these moralising passages occur at very specific points in the work. In particular, they occur at just the points in the aetiology where the highest level of causal analysis has been reached – the precise point, in other words, at which the reader is notionally most ‘separated’ from their body. The purpose of placing them here, I argue, is to confront the reader with these vivid descriptions of vice at precisely the point where they are best placed to reflect critically on such things. What is crucial, though, is that each vice Seneca explores can be explained as an over-attachment to some object that has mistakenly been articulated as the *good*. Indeed, taken together, the vices explored in the moralising passages address the paradigmatic examples of misarticulated goods: pleasure, fame, wealth and, ultimately, bodily preservation itself. By confronting the reader with these vices in the abrupt way that he does, I argue, Seneca hopes to *jar* us into critical reflection on these supposed ‘goods’. The hope: to help us to see the error of our habitual attachments, thus contributing to the process of re-orienting us towards the cosmos as a whole.

We shall begin, in section 2, by considering the essential features of the moralising passages. Subsequently, in section 3, we shall turn to consider in detail the therapeutic role of these passages within the overall scheme of the work.

2. Characterising the moralising passages

2.1 Differentiating the moralising passages

The first thing that must be said about these passages, however, is that they do not form a homogenous group.⁴ Indeed, several passages that we might *prima facie* want to consider as belonging to this group – insofar as they are prefaces, digressions, or epilogues, for instance – cannot be described as ‘moralising’ at all, but rather belong more or less straightforwardly to the aetiology. The most obvious examples are the prefaces to books 5 and 2 – the former on the definition of wind, the latter on the nature of air. Again, while the epilogue to book 3 and the preface to book 7 certainly have a moral dimension, Gross is right, I think, to argue that their primary focus is on the phenomenon at hand: the causes of the flood, and of comets, respectively.⁵ Clearly, then, even if these passages are, in one way or another, distinct from the main body of the investigation, they nevertheless do not pose the same sorts of difficulties that the other, more overtly ‘moralising’, passages do.

⁴ This point is also emphasised by Codoñer (1989), 1805 – although I tend to disagree with the way she differentiates them. In particular, I do not think that the attempts to quell fear in books 2 and 6 should be seen as playing a different (i.e. lower order) role compared to, e.g., the preface to book 1.

⁵ Gross (1989), 142ff.; 281. See also Strohm (1977), 317-18. Indeed, in the case of the flood, at least, this suggestion is supported by my argument in the previous chapter that the causes of the flood are investigated by precisely the same methodology as Seneca employs with all other phenomena: the methodology of abstraction.

Something similar, I would like to suggest, might also be said of the preface to book 6 – or, at the least, there are good reasons not to straightforwardly group this preface with the other moralising passages. One reason is that, unlike *any* of the other moralising prefaces, the preface to book 6 is the *only* one that discusses the phenomenon that is subsequently taken up in the rest of the book. This alone makes the preface seem much more closely integrated with the aetiology of the book than the other moralising passages. Moreover, although there is an overt moralising side in this preface – tackling the fear caused by earthquakes – the character and indeed the *causes* of earthquakes are nevertheless already under discussion in the preface. Having described the devastating effects of the recent earthquake in Campania (6.1.1-3), Seneca proceeds to discuss the effects of earthquakes in general (6.1.6-7) the ubiquity of earthquakes (6.1.11-15), before making an important distinction between divine agency and natural causation: “neither the sky nor the earth is shaken by the anger of divinities: these things have their own causes, and do not run wild to order, but, like our bodies, they are upset by certain defects, and when they seem to be *causing* harm, they are *suffering* it” (6.3.1). Subsequently, before bringing the preface to a close, Seneca gives a summary of the characteristics of earthquakes:

So let us investigate what it is that moves the earth deep below the surface, what disturbs such a heavy mass, and what is more powerful than it, so that it shatters that great weight with its force; why the earth sometimes shakes, sometimes crumbles and subsides, at other times splits apart and gapes open, sometimes preserving for a long time the opening caused by its collapse, at other times swiftly closing it up again; why it sometimes diverts into itself rivers known for their great size, sometimes sends out new ones, at times opens up veins of hot water, at times makes them grow cold; and why it occasionally emits fire through some previously unknown fissure in a mountain or rock, at times extinguishes other fires that have been well-known and renowned for centuries. It produces thousands of marvels: it alters the shape of the terrain, it brings down mountains, lifts up plains, makes valleys swell up, and raises new islands in the deep. (6.4.1)

Again, this sort of introductory summary is totally alien to all the other moralising passages (though, in fact, not dissimilar to what we find at the end of the non-moralising preface to book 7 (7.2.1-3)). What all of this means is that, again, this preface does not pose anything like the same interpretive problems as most of the other moralising passages. As a result, while not denying that there is a prominent moralising *component* to this passage, I nevertheless suggest that it should be set apart from the ‘moralising passages’, properly

speaking. Instead, I group it with the more ‘scientific’ prefaces to books 2, 5, 7, and the epilogue to book 3 (which also has a moralising ‘component’ while also discussing causes).⁶

Perhaps surprisingly, I also think the prefaces to books 3 and 1 should be considered separately. Even before there was a degree of agreement regarding the *Non praeterit* ordering of the books, in which book 3 comes first, there was already a consensus that the preface to this book, alongside that of book 1, had a programmatic force.⁷ This very fact, though, makes their relationship with the rest of the work much less problematic than the other moralising passages. Although it has frequently been said that the themes of these prefaces do not tie in closely with the physical topics of their respective books,⁸ once we accept that these prefaces are *programmatic* – that is, that they serve as thematic frames for the work *as a whole* – it does not seem overly problematic, to me, that they do not have a very intricate relationship with their individual books. As I hope to have shown in the previous chapters, and shall illustrate further in this one, these prefaces do indeed serve as useful guides to the work as a whole – namely, by stating the central aims of physical study, and by alluding to the Platonist context of the work’s argument. Therefore, even if they do not relate in specific and concrete ways to their individual books,⁹ they nevertheless play the same crucial guiding role in the exegesis of their own books as they do for the rest of the work.

The passages that are really in need of explanation (and this remains the majority of those with which we started) are those listed in the in the table below:

| Book 3 | Book 4a | Book 4b | Book 5 |
|---|--|--|---|
| 17.1-18.7 The ‘Mullet-Eaters’ | Pref. 1-22 Lucilius’ flatterers | 13.1-end The ‘Snow-Drinkers’ | 15.1-4 ‘Philip’s Men’ 18.1-end The misuse of winds |
| Book 6 | Book 7 | Book 1 | Book 2 |
| 32.1-end The fearsomeness of earthquakes | 32.1-2-end The dedication to luxury over philosophy | 16.1-end Hostius Quadra’s sexual debauchery | 59.1-end The fearsomeness of lightning |

⁶ It is worth noting that book 6 is also exceptional in having both a moralising preface and epilogue that discuss *precisely the same topic*: fear of death. This, though, proves less decisive since book 5 also discusses the same theme twice: avarice – albeit not in a *preface* and epilogue, but rather the *digression* and epilogue.

⁷ This “*communis opinio*” is noted by Codoñer (1989), 1813.

⁸ On the incongruity of book 1 with the subsequent aetiology, see Zeller (1909), 727 n. 2; Gross (1989), 14. On that of the preface to book 3, see Gigon (1991), 333; Rosenmeyer (2000), 109.

⁹ Although, as I suggested in the previous chapter, book 1 does set up the important theme of the seen/unseen aspects of nature that is then prominent throughout the book.

These passages (the true ‘moralising passages’) share a number of important characteristics – precisely the characteristics, in fact, that make them difficult to reconcile with the rest of the text. It is primarily *these* passages, therefore, that are in greatest need of explanation. As I shall argue, though, it is the very characteristics that make these passages so difficult to integrate that also inform their therapeutic function.

2.2 Thematic and rhetorical discontinuity

First, as has already been indicated, these passages generally have a fairly weak thematic connection to the surrounding physical aetiology.¹⁰ The strongest examples of this are the ‘Mullet-Eaters’ digression in book 3,¹¹ and the preface to book 4a on flattery. The former is introduced off the back of a reference to underground fish, while the latter really has no obvious connection to the subsequent discussion of the Nile whatsoever.¹²

¹⁰ As already noted, though, some scholars would deny this. Stahl (1960), (1964), Waiblinger (1977) and Berno (2003) all argue for linkage between the aetiology and the moralising passages. Stahl argues that the aetiological sections of the work serve, via such links, to introduce themes that are then explored *in abstracto* in the moralising passages – which Stahl regards as the centrepieces of the work (Stahl’s view is argued against strongly by Strohm (1977)). Waiblinger (1977) also sees the moralising passages as central, and argues that the aetiology serves to ‘set the mood’ for each of the books (which Waiblinger argues are arranged in pairs, with each member of the pair reflecting, respectively, a broadly positive or negative aspect of nature). The mood set by the aetiology is then manifested in the moralising passages. Berno (2003) also sees the aetiology as playing a broadly ‘introductory’ role for the moralising passages, but also argues that there is overt ‘mirroring’ between the attitudes of the notional natural philosopher (as characterised through the aetiology) and the protagonists of the moralising passages. However, as I argued in Chapter 1, merely reducing the physics to this kind of introductory tool seems altogether unsatisfactory. Nor, in my opinion, do these supposed linkages really do much to *explain* the collocation of ethical and physical themes: just because there is a connection between the physics and an ethical theme does not immediately justify a digression upon that theme. Furthermore, as I have said before, the fact that generations of scholars have failed to detect these supposed links (as well as the fact that there are disagreement over what these links actually *are* among scholars) should perhaps arouse scepticism as to whether Seneca intended for us to detect them. In general, I have more sympathy for Williams’ (2012, esp. ch. 2) suggestion that the protagonists of the moralising passages exemplify a kind of ‘narrow mindset’, which contrasts starkly with the expansive perspective that Seneca is trying to foster through the aetiology. In what follows, I shall try again to give a firmer philosophical grounding to this idea. Again, though, I do not agree with Williams’ detection of “tight thematic and verbal linkage between Seneca’s moralising passages and their surrounding contexts” (54). Indeed, if what Seneca is trying to illustrate in the moralising passages is, in a sense, the polar opposite of what the physics is supposed to bring about (and here Williams and I agree), then it would be somewhat strange if Seneca *did* try to bring the two parts of the text into too close an association. Indeed, I shall argue that it is precisely the stark and jarring opposition between the two sections of the work that is supposed to produce their therapeutic effect.

¹¹ Waiblinger (1977, 43ff.) sees this digression as an artful turning-point in the book, since before this point we find a broadly positive depiction of nature, while afterwards a broadly negative one (although this scheme has been contested by a number of scholars). The subsequent account of the flood is then to be seen as divine punishment for the vicious behaviour in the digression. Berno highlights the parallels between the philosopher’s inquiry into nature and the diners’ avid attention to the colours of the dying fish. Berno also links the digression to the surrounding aetiology by suggesting that the diners perversely reflect the underground fish that have been referred to just before the digression. Williams (2012, 75ff., esp. 79) follows Berno closely here, though also Waiblinger, since Williams likewise sees the flood account at the end of the book as a kind of punishment for the digression’s moral transgressions. Against the notion of punishment here, see Gauly (2004), 98.

¹² Limburg (2007, 185) finds one (4th/5th century) literary parallel for the association of flattery and the Nile, though herself openly admits that this is rather tenuous, and ultimately rejects it as a plausible connection. Codoñer (1989, 1812) goes as far as to speculate that this preface may be an adapted epistle, originally intended

Book 4b's epilogue on the 'Snow-Drinkers'; Book 1's epilogue on Hostius Quadra; book 5's digression about Philip's Men; and book 7's epilogue on the neglect of philosophy in favour of luxury all share at least *some* connection with the aetiological investigation: 4b's tirade against snow-cooled drinks links to the aetiology of snow;¹³ Quadra's use of mirrors links to the optical phenomena that dominate the book;¹⁴ the journey of Philip's Men underground is introduced after a reference to winds being emitted from underground caves;¹⁵ book 7's discussion of the neglect of philosophy in favour of a luxury has some relevance to the idea that the causes of comets will require the devoted philosophical inquiry.¹⁶ However, these links, I contend, are so manifestly weak that they actually serve to *emphasise* to the disjuncture between the aetiology and the moral sections.¹⁷

for the *Letters*. Other scholars have also pointed to the epistolary character of this preface. For an excellent summary of this scholarship, see Limburg, *op. cit.*, 185-195. Berno (2003, 136-7) sees the hyperbole of the flatterers as mirrored in subsequent hyperbolic description of the Nile – though this artistic linkage is, in my opinion, quite strained. Berno is nearer the mark, I think, with her additional suggestion that the subsequent investigation of the Nile enacts a kind of philosophical withdrawal from the sorts of dangers that flatterers pose (although it must be noted that what is proposed is not merely the sort of withdrawal frequently proposed in the *Letters*, but an “escape from oneself”). Williams (2012, 95-110; 132ff.) suggests something similar. In this respect I partially agree – although I set this within the broader scheme outlined in the previous chapter.

¹³ Waiblinger (1977) thinks the epilogue reflects the light-hearted, almost comic tone of the aetiology. Berno sees the Ice-Drinkers as mimicking the philosopher's mindset in their dogged search for after-dinner palliatives; the parallels are enhanced further by various lexical links between the epilogue and aetiology. Williams (2012, 141ff.) largely follows Berno here.

¹⁴ Waiblinger (1977, 68ff.) sees the Quadra episode as a counterpoint to the metaphorical ascent towards heavenly light carried out in the aetiology. The interpretive problems with this metaphorical ascent are noted in Chapter 1 (where I contrast it with the conflicting interpretations of Leitão (1998) and Williams (2012, 58f.). It is also worth pointing out that the Quadra episode fits uncomfortably within Waiblinger's overall scheme of positive/negative book-pairs, since book 1 is supposed to be one of Waiblinger's 'positive' books. Berno (*op. cit.*, ch. 1) suggests that Quadra's attention to detail mimics natural philosophical inquiry. Williams (*op. cit.*, 55ff.) sees Quadra as emblematic of the parochial mindset that he (I believe correctly) thinks characterises all of the agents in the moralising passages. Williams, though, also follows Leitão (*op. cit.*) in seeing Quadra as presented in similar terms to god in the preface to this book. I strongly disagree with this – if there is a relationship, it is merely one of antithesis: god is nothing but mind, Quadra is nothing but body. I struggle to see why Seneca would wish to muddy his ethical message in this way. Scott (1999), while taking a completely different approach to integrating the passages, does not appear to see any particular problem with the mirrors serving as a thematic link, suggesting merely that “Seneca makes the bridge between physics and ethics by discussing the development of the mirror” (60). Similarly Bartsch (2000, 83-4): “In the end, Hostius' own magnified and multiplied images are nothing other than a continuation of the theory that sees in earthly reflections the distorted images of the divine”.

¹⁵ Waiblinger (1977, 74ff.) sees a sinister tone in the build-up to the digression, with Seneca using language evocative of the Underworld in his description of winds being emitted from underground caves – language that subsequently reappears in the digression. Berno (2003, ch. 5) also detects Underworld imagery, though also argues that the men's search for gold underground mimics the philosopher's search for obscure causes. Williams (2012, 80ff.) again follows Berno closely, though also suggests, rightly I think, that the narrowly-focused perspective of Philip's men is set in opposition to the expansive perspective fostered by the aetiology.

¹⁶ Both Berno (2003, ch. 8) and Williams (2012, 85ff.) draw attention to the parallels between the way the natural philosopher approaches the study of the heavens, and how the vicious pursue luxury. Williams (85-6), for instance, sees a reflection of the natural philosopher's interest in the seasonal 'steps' (*gradus*) of stars' risings and settings, with the interest of the vicious in their own delicate gait.

¹⁷ On the tenuousness of these links, see esp. Gauly (2004, ch. 3); Limburg (2007, *passim*).

The epilogues to books 5, 6 and 2 ostensibly have much stronger connections to their books' topics. Those to book 6 and 2 discuss (at least initially) the fear of the phenomena under investigation – earthquakes, and lightning. The epilogue of book 5, meanwhile, discusses the misuse of winds – to sail overseas in search of wealth. Nevertheless, despite these thematic overlaps, there are some very obvious ways in which these passages are not neatly integrated with the aetiology. In book 6, the transition between the aetiology and the epilogue is not a smooth one. While reporting some remarkable effects associated with earthquakes, Seneca suddenly announces: “So much for explanations, Lucilius, excellent man: now for what serves to reassure our minds” (6.32.1). In a very similar move, book 2's epilogue is abruptly introduced when Seneca says “I know what you have long been wanting, what you are clamouring for: ‘I would rather,’ you say, ‘not be afraid of lightning bolts than understand them’” (2.59.1). Moreover, in both cases, although the discussion of fear of death is initially motivated by the phenomena in question, it rapidly becomes a diatribe against fear of death in general.¹⁸ Similarly, although the transition from the aetiology in book 5 is (marginally) less abrupt than in those books, what starts off as an apparent justification for the lengthy preceding account of the distribution of winds (“providence did not devise winds or distribute them in different locations for one reason alone” (5.18.1)) rapidly turns into a quite different discussion about man's propensity to seek wealth through war (esp. 5.18.6f.).¹⁹

In fact, abrupt transitions are a feature of quite a few of the moralising passages. Like the epilogues to book 6 and 2, the epilogue to 4b is introduced with a contrived interjection from Lucilius: “‘Why,’ you ask, ‘do you pursue so energetically these absurd inquiries, which make a person more learned, not more virtuous?’” (4b.13.1). Meanwhile, the account of Philip's Men, and of Hostius Quadra, are introduced by Seneca's sudden announcement of his wish to tell us a “story”: (5.15.1: “Now let me tell a little story (*fabula*)...”; 1.16.1: “At this point I want to tell you a story (*fabella*)...”

Not only are these passages at odds thematically with the surrounding aetiological discussion, therefore, but, even when there *is* a modicum of thematic continuity, Seneca seems to go out of his way to *mark* or even *create* a sense of discontinuity through the use of these awkward transitional devices.²⁰

¹⁸ As noted by Limburg (2007), 332; 339ff.

¹⁹ Limburg (2007, 243ff.), with comment against Stahl's theory that the introduction of providence has been prefigured in the aetiology. On this, see also Gross (1989) 235; Strohm (1977), 321.

²⁰ Limburg (2007, 44ff.) notes the unusualness of abrupt transitions of this sort among contemporary literature – although, despite this, she seems sympathetic with Hutchinson's (1993, 149) suggestion that such transitions serve to create an “appearance of firm and lucid organization” (no doubt because Limburg herself contends that the unusual form of the work is a product of contemporary literary practice). However, far from creating a sense

2.3 'False goods' and the portrait of empiricism in the moralising passages

Another central feature of these passages is that they all describe a very particular sort of vicious behaviour. At first, however, the behaviours exhibited in these passages might seem quite diverse, even arbitrary. Berno, for instance, labels them as *libido* (book 1, Hostius Quadra), *luxuria* (book 3, the 'Mullet-Eaters'), *luxuria* (book 4b, the 'Ice Drinkers'), *avaritia* (book 5, 'Philip's Men' and 'the misuse of winds' in the epilogue), *timor* (books 6 and 2, on fear of death), and, again, *luxuria* (book 7 – though in this case more specifically *deliciarum dissolutio* and *impudicitia*, because of this epilogue's reference to effeminate male adornments and lavish sexual practices). Trying to make sense of this apparently disparate ensemble, Berno considers whether these behaviours can be mapped onto any existing Stoic lists of passions, but finds they cannot.²¹ She notes that *luxuria* in particular fails to find an analogue. In fact, though, there *are* Stoic precedents for the association of these behaviours; and, crucially, the context in which they do associate them is in their thought about the *good*.

Let us consider the example of *luxuria*, since it occurs most frequently in Berno's list and appears problematic. Luxury is, of course, a burning issue for Seneca, and elicits some of the most frequent and scathing attacks throughout his corpus.²² The problem with luxury, though, is not the fact that it is inherently bad.²³ Rather, what is dangerous about it is its alluring quality, the fact that, through its pleasant presentation, it tends to fool people into thinking that it is genuinely *good*.²⁴ It is this very mistake, though, that the Stoics say is at the root of human misery, leading mankind into all sorts of unnatural, impassioned behaviour²⁵ – behaviour, that is, such as we find exemplified in the moralising passages themselves. If this is right, this raises the possibility that what unifies the apparently diverse set of vicious behaviours depicted in the moralising passages is their agents' collective mistake over the nature of the good.

Let us briefly review these vicious behaviours – or rather, the *objects at which* these behaviours are directed – to see how this maps out. The Mullet-Eaters of book 3; the Snow-

of clear organisation, these abrupt transitions have frequently been seen as evidence of *poor* organisation on Seneca's part. Gauly (2004, chs. 2-3) thinks that these transitions (along with the thematic discontinuity) serve to highlight the layered way which, on his reading, the *Natural Questions* can be read. On the one hand, the moralising is introduced as a concession to the less philosophically interested readers (primarily, the Roman popular audience). To more sophisticated readers, however, the disjuncture between the physics and the moralising sections emphasises the need to abandon this hopelessly corrupt world and escape into Platonic contemplation.

²¹ Berno (2003), 24-5. Consequently Berno argues that these are specifically the vices of *Roman* society.

²² For a complete list of references to Seneca's attacks on luxury, see Motto (1970), 128-9.

²³ In moderation, indeed, it can be helpful: *Ira* 2.20.2

²⁴ Galen *De Hipp. et Plat.* 5.5.19-20; cf. *Ep.* 124.2. See also Long (1968), esp. 336ff.

²⁵ See, for example, *SVF* 3.378-9; 3.391; 3.480.

Drinkers of book 4b;²⁶ the *luxuriosi* of book 7, and – most tellingly – the sexual deviant Hostius Quadra in book 1: all of these are surely tokens of *pleasure-seeking* behaviour.²⁷ Book 5 discusses avarice – that is, the over-valuation of *wealth*. Book 4a might seem like an odd example, since the apparent topic is flattery. In fact, however, the point of this passage is to warn Lucilius against being taken in by flatterers, which risks arousing his sense of *ambition* (not to mention the fact that it is presumably ambition that motivates the flatterers themselves). Indeed, Seneca explicitly warns Lucilius against ambition: not to become over-proud of his position as procurator in Sicily (4a pref. 1; 20-2), which is the site of so many important historical events. The object that Seneca is really warning against here, therefore, is *political power*. This leaves books 6 and 2, which discuss the fear of death – surely an over-attachment to life itself, though this might also reasonably be rephrased as an over-concern with (narrowly conceived) *self-preservation*, or even as an over-attachment to the *body itself*. This, in any case, is what Seneca seems to imply at 2.59.4: “Can they [causes of death] do any more than separate the body from the mind?”. For the sake of clarity, I tabulate this below:

| | | | | |
|--------------------------------|--|---|---------------------------|--|
| Book | 3 | 4a | 4b | 5 |
| Vicious Behaviour | Watching fish die at the table | Being lured/luring others into political ambition | Using snow to cool drinks | Going to great lengths for wealth |
| Caused by over-valuation of... | <i>Pleasure</i> | <i>Fame/Power</i> | <i>Pleasure</i> | <i>Wealth</i> |
| | 6 | 7 | 1 | 2 |
| Vicious behaviour | Fearing death | Pursuing luxury over philosophy | Having elaborate sex | Fearing death |
| Caused by over-valuation of... | <i>Narrow self-preservation/the body</i> | <i>Pleasure</i> | <i>Pleasure</i> | <i>Narrow self-preservation/the body</i> |

This might still seem like a rather motley collection of topics. As it happens, though, this very list of items – wealth, fame, pleasure and (to a lesser extent) self-preservation – are ones that are frequently associated by the Stoics, and they are associated specifically as things that

²⁶ Alternatively, since the protagonist uses snow to cool drinks in order to cure indigestion, this passage could be taken to represent not pleasure, but *health* – another indifferent that we might be inclined to mistakenly think of as a genuine good. However, Seneca puts a much stronger emphasis on the act of eating luxurious food than the desire to, as it were, stay healthy, so I tend to think that luxury/pleasure is the ‘good’ in question here.

²⁷ The preponderance of passages dedicated to luxury/pleasure is not doubt in part down to Seneca’s personal gripe with luxury, though likely also because he sees luxury/pleasure as a *particularly* dangerous and commonplace misidentification of the good. At *Ep.* 110.10, for instance, he says that indulging in pleasure is “the beginning of all troubles”.

people often mistakenly take to be *goods*. For instance, all *four* of these ends are mentioned together by Cicero at *De officiis* 1.66-8. While instructing his son to pursue only what is *honestum*, Cicero emphasises that this must be done even when it *endangers life*, and goes on to warn him not to become distracted by *pleasure, wealth, and the desire for glory*. Elsewhere, Marcus Aurelius mentions wealth, pleasure and fame in one breath, chiding himself for the very mistake we are talking about: regarding them as good.²⁸ Diogenes Laertius also associates pleasure, wealth and fame (though he also mentions beauty, strength and noble birth),²⁹ citing them as examples of Stoic ‘indifferents’ – presumably choosing these specific examples precisely because these are the things that are typically regarded as good *rather than* merely indifferent.³⁰ Meanwhile, in a related context, Stobaeus lists “love of pleasures and riches and honours” as examples of objects towards which the passion of ‘appetite’ (τὴν ἐπιθυμίαν) is directed.³¹ It would appear, then, that it is no coincidence that Seneca chooses to exemplify agents who pursue these particular ends; for it seems that the Stoics saw these as *paradigmatic* examples of misarticulated goods.

This focus on ‘goods’ is obviously already significant considering the dialectical context in which I locate the *Natural Questions*. But what seems especially indicative is that the range of ‘goods’ discussed in these passages are precisely the things that, according to the Platonist line of thought, an empiricist would be *bound* to consider as the good. According to this, the inescapable egoism that empiricism gives rise to means that an empiricist agent could only *ever* articulate the good in these terms – in terms of pleasure, wealth and the rest.

What is truly striking, though, is that Seneca’s descriptions of the protagonists emphatically draws attention to their reliance on sense-perception, and even seems to portray this as the *cause* of their extreme egoism.³² This means that the agents in these passages actually end up looking rather like *caricatures* of empiricist agents, as portrayed by the Platonists. The most arresting example of this tendency is the lurid depiction of Hostius Quadra in book 1. If we recall, this passage describes Quadra’s use of mirrors to observe himself during his elaborate orgies. Several scholars have pointed out Quadra’s extreme inward-focus in this passage: surrounded by mirrors, he can almost literally see nothing other

²⁸ 10.30.

²⁹ Incidentally, a number of these additional misidentified goods are also alluded to in passing by Seneca, though without being thematised in the same way: beauty: 7.31.2; strength: 1.5.14 (not in a moralising passage); noble birth: 4a pref. 15.

³⁰ 7.102; cf. 7.115.

³¹ *SVF* 3.394.

³² Berno (2003, *passim*) also draws attention to the vicious protagonists’ emphatic reliance on, in particular, vision – as does Williams (2012), esp. ch. 2. Williams, though, also connects this with the parochial mindset of these characters and, as I do, sees it as contrasted with the expansive thrust of the aetiology.

than the image of his own body.³³ Interestingly, as Berno observes, Quadra's crime in this account appears not simply to be the sexual acts themselves as much as it is his *seeing* them.³⁴ Seneca (rather too graphically) berates Quadra for "filling not just his mouth but his eyes", and exclaims that, "as though it were not enough to submit to unheard of, unknown things, invited his eyes to watch" (1.16.3-4).

Several of these features recur in the digression in book 3.³⁵ Having described the Mullet-Eaters' fascination with the changing colours of the dying mullet, Seneca comments that they are "not content with teeth, and stomach, and mouth, they are gluttons with their eyes as well." Again, this obsession with visual pleasure is associated with selfish egoism: "None of these people sits by a dying friend, none can endure seeing the death of his own father, though he has prayed for it. Hardly any of them follows a family funeral procession to the pyre! The final hour of a brother or neighbour is deserted, but people race to the death of a mullet". (3.18.6-7).

Culinary pleasure features again in the epilogue to book 4b – although in this case it is the pain that follows over-indulgence that motivates the protagonists, who seek ever-colder palliatives to sooth their indigestion. The egoistic nature of this behaviour is emphasised by the fact that the diners become, in a sense, closed off from the outside world. For, the constant oscillation between ever more extreme sensations – hot, cold, pleasure, pain – seems to render the diners practically insensate: "the unremitting self-indulgence, which has already overcooked their minds, drives what is left of them into a state of frenzy and inflames them with longing for something ever colder...For just as we sprinkle cold water on people who have fainted or are in a daze, so that they may recover their senses, so their internal organs, dulled by their vices, can feel nothing unless you shock them with extreme cold" (4b.13.7). Sensory over-stimulation results, almost paradoxically, in the Snow-Drinkers' complete inability to perceive the world around them.³⁶

In the epilogue to book 7 (the last in our group of pleasure-seekers) we again find a strong emphasis on these agents' *visual* fixation. Seneca pours scorn on the obsession with physical appearance gripping Roman men: "With our sleek, glossy bodies, we have overtaken female beauty treatments; we men wear prostitutes' colours that married women would not put on; we tiptoe along with delicate, mincing steps (we do not walk but parade); we adorn

³³ Berno (2003), 35ff; Leitão (1998), 146; Bartsch (2000), 82ff.; Williams (2012), 55ff., esp. 60.

³⁴ Berno (2003), 35ff; see also Bartsch (2000), 83.

³⁵ As noted by Berno (2003), ch. 2, followed by Williams (2012), 84-5.

³⁶ A point also made by Berno (2003), 158-60. On the parochial mindset that this leads to, see Williams (2012), 143-4.

our fingers with rings; a jewel is arranged on every joint”. The role of vision and the senses in bringing about this behaviour is made clear when, a few lines later, Seneca says the search for new pleasures is never-ending because “our eyes, our hands are its slaves” (7.31.2-32.1).³⁷

In the preface to book 4a, Seneca contrasts the devious and self-serving advances of flatterers with Lucilius’ disinclination to political advancement and dutiful loyalty to his friends. Interestingly, the very efficacy of flattery is said to depend on its visibility. “Blandishments are wasted if hidden”, a certain Plancus is reported to have said, while Seneca himself adds that “the more open flattery is...the swifter its victory”. However, despite the flatterer’s apparent openness, (and, we might add, despite their appearance of *promoting* the interests of others) Seneca is keen to emphasise that they are motivated entirely by self-interest. Demetrius, we hear, once told a powerful freedman (ironically, we can assume) that he had discovered “an easy path to wealth on the day he repented of his good intentions”. With flattery, Demetrius says: “I’ll teach how they can make money not just easily but enjoyably, and can rob victims who relish it” (4a pref. 7). It should also be noted that the very reason that Seneca warns Lucilius about flatterers is down to the potential they have to inflate his *own* sense of self-regard: “I shall draw you far away from your province to ensure that you...do not begin to be pleased with yourself...” (4a pref. 21; cf. 1-2).

In the first of two discussions of avarice in book 5, the digression on Philip’s Men again stresses the act of seeing. Having journeyed underground for several days, the men “saw” (*vidisse*) huge lakes and rivers, upon which they “could not help shuddering *at the sight*” (*non sine horrore visos*, my emphasis). Seneca subsequently criticises the men for “searching in the darkness for what was inadequately concealed” (5.15.1-2). Again, the result of sensory fixation is a kind of dissociation from the outside world; for their pursuit of hidden wealth leaves them literally isolated, deep underground. Seneca stresses this, contrasting their situation with man’s natural orientation towards the cosmos: “What great hope made them leave the daylight behind? Human beings stand erect, facing the stars...” (5.15.3).

In an inversion of this picture, the protagonists of this book’s epilogue travel across the whole earth, braving the oceans in search of distant lands. In one sense, such an endeavour might seem to be in accord with the ‘expansive’ aims of the physics, helping to foster an appreciation of the wider world. Indeed, Seneca himself says that one of the providential purposes behind the winds is precisely to facilitate exploration and communication between distant peoples (5.18.4). The problem, though, is the motivation: not communion, but

³⁷ See Williams (2012, 85) for the emphasis on *bodily* devotion here.

conquest. Rather than driving a greater affinity with the wider world, our obsession with wealth sets us at odds with the rest of humanity.³⁸

Finally, then, the epilogues to books 6 and 2 both discuss the fear of death. These passages have a different character from those considered so far: shocking anecdotes of vicious individuals are replaced by simpler forms of exhortation. This is perhaps due to the slightly different object at stake here – no longer an external object, but one’s very life. This, for one thing, makes the emphasis on sense-perception that we find in the other passages somewhat more difficult to contrive. Regardless of this, though, Seneca makes clear that the underlying mistake of this vice, and its outcomes, are broadly the same as in other passages. Self-centred tendencies are again at the forefront, vividly evoked by Seneca’s comparison of one fearing his death to “someone who, when placed in the ranks of those about to die, asked as a favour to be the last to face the executioner” (2.59.7). Moreover, as already mentioned, at 2.59.4 Seneca characterises fear of death as precisely an over-valuation of one’s own body (cf. the denigration of the body at 6.32.3). Considering the Platonist debate, this emphasis on over-attachment to one’s own body is especially significant; for, according to Anon., it is the precisely at the body where most people’s sphere of self-interest ends. Characterised in this way, the fear of death represents the quintessential manifestation of the egoistic tendencies that, according to the Platonists, an empiricist agent is bound to exhibit.

Why, then, should Seneca present the protagonists of the moralising passages in this way? Does this not risk undermining his own point – that empiricist agents need *not* turn out like this? Is Seneca agreeing with the Platonists, after all? In a sense, in fact, I think he *is* agreeing with the Platonists. He is acknowledging that the reason why most people do behave in ways analogous to the protagonists of the moralising passages is, indeed, because of their over-reliance on sense-perception. Most people, Seneca is saying, put far too much store by the senses as a means of identifying what is good for a human being – a mistake that cannot but leads us astray. This, indeed, is a point that Seneca makes in his 124th Letter:

If the senses were what ascertain the good, we would not reject any pleasure, since there is no pleasure that does not entice and please us...Yet we disapprove of gluttons and people addicted to sex, and we despise those who are dissuaded from every manly undertaking by fear of pain. If the senses were the criteria of good and bad, how would these people do wrong by obeying them? For you have ceded to the senses the authority to decide what to pursue and what to avoid. But obviously it is

³⁸ A point made by Seneca himself at *Ep.* 90.36.

reason that has charge of that. Reason settles questions about the happy life, virtue, and the honourable, and likewise about the good and the bad. (124.2-4, trans. Long and Graver).

With this in mind, this emphasis on the senses can initially be seen as serving two related functions. On the one hand, it serves to further clarify the internal goals of the work. As Seneca says at the start of the work, the aim of studying physics is to separate our minds from our bodies by investigating the hidden causes of nature. In the moralising passages, then, Seneca essentially explains *why* we need to do this: if we do not, we will end up acting like *them*. On top of this, though, the emphasis on sense-perception helps to foreground the issues to do with empiricism that are relevant within the broader philosophical context – in effect serving as a further signpost, alongside the Platonic allusions, for Seneca’s engagement with the ongoing debate over this problem.

At the same time, though, these considerations alone cannot tell the full story of the moralising passages and their role in the work as a whole. While these thoughts might account for the emphasis on sense-perception, they do not account for many of the other unusual features shared by these passages. In particular, these considerations do not explain the emphatic rhetorical and thematic discontinuity between these passages and the aetiological sections of the work. Nor do they explain the tendency to indulge in detailed descriptions of very specific, and at times bizarre, instances of vice (a point we shall return to later). To begin to unpick these peculiarities, we first need to consider another crucial element of commonality between these passages.

2.4. *The positioning of the moralising passages in the work*

Again it is the structure of the work that holds the key. In the previous chapter we saw that each book is structured according to a scheme in which we move from material, mechanical (and often visible) causes, through ever more complex and abstract ones, culminating with divine reason. Accompanying and indeed as a result of this process, I have suggested, the soul is gradually distanced from the body, a process that reaches its climax (the point where the soul is, as it were, ‘most distant’ from the body) along with the discovery of divine reason. Considering the direction of this dynamic, what is striking is that it is precisely at the end of this process that we encounter the great majority of the moralising passages – directly alongside the highest level of causal analysis.

Let us briefly review this. The episode of the Snow-Drinkers in the epilogue in book 4b³⁹ occurs concurrently with the consideration of nature's *intention* behind the distribution of water. The epilogue to book 5 occurs, very similarly, alongside the consideration of nature's intention behind distributing *winds*. The epilogue to book 6 occurs after the discussion of the primary role of *spiritus/πνεῦμα* as a cause of earthquakes,⁴⁰ and Seneca reminds Lucilius that death (like earthquakes) is a part of the *naturae lex*. In book 7, the dedicatees of luxury are juxtaposed directly with Seneca's reflection on the modesty we should have towards the gods, and the hidden character of the divine. Hostius Quadra's antics are followed again by a reflection on nature's *intentions*, this time behind creating mirrors. Finally, the epilogue to book 2, on fear of death, occurs shortly after the work's most detailed description of the divine (within the discussion of divination),⁴¹ and contains a further reminder to see death (and, by implication, lightning) as part of the universal law.

The vicious episodes that we find in the epilogues, then, consistently occur just as, or shortly after, the most profound level of causal analysis has been reached. In fact, this is regularly reached within the epilogue itself, so that the vicious episode is directly juxtaposed with the introduction of the divine.

Of course, it will no doubt have been noted that several of the moralising passages do not actually *occur in* epilogues. If the hypothesis is that these moralising episodes crop up just as the highest level of causal analysis has been reached, the fact that some occur, say, in the *middle* of the book – as is the case with books 3 and 5 – might seem problematic. In fact, though, these anomalies actually serve to corroborate the hypothesis. For, although it is true that Seneca generally reaches the highest level of causation near the end of each book, he sometimes reaches this stage much earlier. And, strikingly, essentially⁴² the only two occasions when this happens are in these very books, just before the moralising passages occur.

In book 3, if we recall, the digression on the Mullet-Eaters occurs at the end of a clear series of ever-deepening causes. From the mechanical theories that 'backflow' or rainfall fills rivers, Seneca then explores the role of underground caverns. From here he introduces the

³⁹ The first moralising epilogue in the work (on the *Non praeterit* ordering) for which, in any case, we have evidence – book 3 has no moralising epilogue (we shall return to the significance of this momentarily), and the latter half of book 4a is lost.

⁴⁰ Albeit with an intervening passage considering several paradoxical phenomena. I shall return to consider the significance of these, and the importance of *their* locations in the work, in the final section of this chapter.

⁴¹ Again, a passage of paradoxical phenomena intervenes here.

⁴² The only possible addition being book 2, where the highest level of causal analysis is already reached in the central 'digression' on divination. The fact is, though, that this 'digression' is so long that it almost reaches the end of the book – and, indeed, is followed shortly after by this book's moralising epilogue.

role of elemental transformation, which is used to introduce the concept of nature – first, as a vast system of interconnected mechanical causes; then as a living system governed according to the model of our own bodies; finally, as a providential agent governing natural phenomena with complete regularity. It is at precisely this point, however, that the Mullet-Eaters digression occurs.

The situation is very similar in book 5. Following the discussion of the atomist explanation of wind, we again see the move underground, and the subsequent introduction of a human body analogy – although one which is subsequently refined from a mere biological (digestive) analogy, to one based instead on the air’s vitality and ability to self-move (5.5.1-5.6). Subsequently, Seneca considers the causes of several winds individually – whose purpose, I argued in the previous chapter, is to illustrate the organised way in which winds occur across *time* (predawn, just after dawn, later in the day...). The full providential significance of this distribution, it is true, is not fully revealed until the epilogue, when Seneca reveals the purpose behind this ubiquitous distribution of winds (facilitating the constant circulation of air, and rain, for instance). However, we should note the striking parallel with book 3. For immediately preceding the digression in that book Seneca likewise considers the regularity of nature across time, in that case via the consideration of intermittent springs and other natural cycles.

Despite not occurring at the end of the book, therefore, these digressions nevertheless conform to the pattern: occurring just at the point when Seneca has explained the phenomena by referring them to the organisation and regularity that is found throughout the natural system.

Prima facie, a more difficult case is the preface to book 4a. This is because the moralising episode in this book occurs right at the *beginning* of the book. This is ostensibly problematic since it appears to mean that there is no opportunity to reach the usual ‘high’ level of causal analysis beforehand; nor, moreover, is there any relevant discussion of providence or the like in the preface itself – nor, for that matter, in the rest of the surviving book. Indeed, part of the problem, of course, is that the book is only partially extant. It is therefore possible that this apparent exception to the pattern could have been made sense of if we knew what happened in the remainder of the book. Fortunately, however, I do not think that we need to resort to such speculation. For, although it is true that there is no opportunity to reach the usual level of causal abstraction before the moralising episode *in book 4a*, we must also, I think, consider the position of this preface immediately following book 3.

Indeed, we should note that despite all the controversy over the book-order in the *Natural Questions*, no one has ever questioned the fact that book 4a follows book 3. This is for the very good reason that Seneca both explicitly postpones the discussion of the Nile in book 3 (3.1.2), and then also explicitly refers back to this postponement at the start of the investigation in book 4a (4a.1.1: *quaeram enim tecum, id quod libro superior distulit, quid ita Nilus...abundet*). It is absolutely certain, therefore, that book 4a followed immediately after book 3.

The significance of this begins to become apparent when we consider how book 3 ends. Like other books, book 3 certainly ends with a strong emphasis on the divine – at, therefore, the highest level of causal analysis. However, emphatically unlike all other books, book 3 does not end with a moralising passage – *remaining*, as it were, at the highest level of causal analysis.⁴³ This is especially significant, though, when we consider that the following book, book 4a, is the *only* book that *begins* with a moralising passage, properly speaking.⁴⁴

This by itself might already hint at a special relationship between these books; but there are other more compelling reasons to suggest this.⁴⁵ Principal among these is the very close relationship between the phenomena explored in these books. Book 3 discusses rivers in general; book 4a discusses the Nile. In addition, a number of scholars have drawn attention to numerous parallels between Seneca’s description of the cataclysmic flood at the end of book 3, and the subsequent flood of the Nile. Both are, of course, kinds of flood; but there are even close parallels in the way Seneca describe them. These correspondences have, indeed, led a number of scholars to regard these books as a kind of unit: Waiblinger, for instance, uses these two books as the basis for his theory that all the books are grouped in pairs; Gigon, meanwhile, argues that book 4a is a kind of appendix to book 3.⁴⁶

All things considered, this seems too much of a coincidence to ignore. I maintain, therefore, that these two books function as a unit, and between the end of book 3 and the start

⁴³ As argued in section 2.1 above: although there is certainly a moralising *component* to this epilogue (cf. the prefaces to books 6 and 7), it does not have what is probably the key feature of the other moralising passages: a detailed focus on a particular sort of vice.

⁴⁴ Again, as argued in section 2.1.

⁴⁵ In addition to the correspondences between the phenomena, it is also worth highlighting the relationship between the *prefaces* to these books. In the preface to book 3, Seneca is primarily addressing himself: commenting on his own old age, his own “misspent life” (in politics?) and the need for him to turn his mind “to contemplation of itself” (3 pref. 2). Meanwhile, the preface to book 4a is addressed at Lucilius, at *his* need to withdraw from politics, and to ‘escape’ from himself. In a sense, then, the prefaces form a kind of pendant pair, with the first addressed to the author himself, the second to the work’s addressee. This is suggested by Waiblinger (1977), 103.

⁴⁶ Waiblinger (1977, ch. 4); Gigon (1991), 322-3. Gigon accepts the *Grandinem* ordering of the books, in which books 3 and 4a come last. Gigon, in fact, regards book 3 as an appendix as well – in this case to book 6, because of the reference to underground caves filled with water in that book. Book 4a, then, is a kind sub-appendix. Cf. Williams (2012, ch. 3) who also discusses parallels between the two books.

of book 4a we get the same kind of contrast between a profound level of causal analysis and sensational description of moral vice that we have seen to be characteristic of the other moralising passages.

In sum, while there is certainly a degree of variation in the way Seneca implements this strategy, I think we do nevertheless find him consistently positioning these passages according to a coherent plan. Namely, the moralising episodes are introduced just after or alongside points at which the aetiology has reached the highest level of causal analysis. This is supposed to correspond, I contend, to the point at which the mind is, as it were, at its *most* detached from the body. The question now, though, is what this strategy is supposed to *achieve*.

3. The therapeutic role of the moralising passages

To begin to answer this question, let us pause briefly to reflect on what we have seen so far. The features of these passages that we are now trying to make sense of are: (i) their abrupt interjection within the aetiology, which is jarring both rhetorically and thematically (ii) the fact that their protagonists seem to typify precisely the sort of attitudes that Seneca is trying to counter with the physics (iii) that they occur just at the point where the most profound level of causal analysis has been reached.

Now, it seems to me that, if only (ii) were the case, we might suspect that the purpose of these passage is simply to show us what, as it were, we are trying to get away from: we study physics, the idea would go, in order to avoid falling into the vices displayed in these passages.⁴⁷ As such, the moralising passages could simply be seen as a way of helping to frame the goals of the physics. This, then, is roughly what I suggested at the end of section 2.3, and I do not think it is entirely incorrect, merely incomplete. For when we also factor in (iii), in particular, one begins to suspect that this is not the full story. The fact that these passages occur at very specific points in an already tightly woven and carefully conceived structure suggests, to me, that they have a role to play that is much more closely integrated with the aims of the aetiology.

Some crucial clues as to what this role might be come, once again, from the prefaces to books 3 and 1. It is at the end of the preface to book 3, if we recall, that Seneca says in explicit terms what he thinks the benefits of studying physics are. So far in this study we have focussed primarily on the goal of separating mind and body, since this idea recurs several

⁴⁷ This role is suggested by Limburg (2007, 267), and is, at risk of over-simplifying, essentially what I take Williams' position to be.

times in the work, and thus seems most prominent. In reality, though, this goal is actually just one item in what is presented as a three-point programme of benefits that, Seneca says, can be derived from the study of nature. Let us consider this passage again:

Ad hoc proderit nobis rerum inspicere naturam: primum discedemus a sordidis; deinde animum ipsum, quo summo magnoque opus est, seducemus a corpore; deinde in occultis exercitata subtilitas non erit in aperta deterior. Nihil est autem apertius his salutaribus quae contra nequitiam nostram furoremque discuntur, quae damnamus nec ponimus.

For these reasons it will be useful for us to investigate nature: first, we shall leave behind what is sordid; next, we shall keep our mind, which needs to be elevated and great, separated from the body; next, when our critical faculty has been exercised on hidden matters, it will be no worse at dealing with visible ones. And nothing is more visible than these remedies which are learned in order to counter our wickedness and madness, things we condemn but do not forsake. (3 pref. 18)

What Seneca describes here seems, in fact, to be some sort of *process* (*primo...deinde...deinde*). The first two stages can, I think, be seen broadly to describe the role of the aetiology outlined in the previous chapter. First, the study of nature removes us from *sordidis* (by, that is, focussing our attention away from the perceptual things that normally dominate our attention). Subsequently (*deinde*) the activity achieves a separation of mind and body (through the methodology abstraction). So far, so familiar. However, it is the third stage in this sequence to which we should now pay attention. Here Seneca says that *once* our mind has been exercised on hidden matters – in other words, *once we have achieved* the separation of mind and body – we will then, at that point, be better at dealing with ‘apparent things’ (*aperta* – opposed to *occulta*). Now, it does not seem too much of a stretch to think that the ‘apparent’ (or, as Hine translates, ‘visible’) things to which Seneca refers here are meant to represent precisely the sorts of things that preoccupy the protagonists of the moralising passages. For one thing, these *aperta* are clearly correlated with the aforementioned *sordidis*; but adding to the plausibility is the fact that it is precisely ‘apparent’ or ‘visible’ things that *do* preoccupy the protagonists of the moralising passages, as we have seen.⁴⁸ If we are right to assume this, then what Seneca appears to be saying is that once we have investigated hidden matters, and thus achieved a degree of ‘separation’, we will *then* be in a position to turn back to the sorts of ‘sordid’ things that preoccupy the agents in the moralising passages – things which, in all probability, preoccupy us as well.

What is significant about this, if correct, is that it seems to fit perfectly with what we have found regarding the location of the moralising passages in the work. For, as we have seen, it

⁴⁸ Williams (2012, 55-6) makes a similar connection.

is precisely after Seneca *has* been exploring ‘hidden things’ – typically, divine reason itself – that he *does* turn our attention back towards ‘sordid things’, as exemplified in the moralising passages.

If this is indeed Seneca’s plan, the question now is why he should think that we would be better at dealing with such things having gone through the process of ‘separation’. The answer, I believe, is closely connected with what was said in the previous chapter concerning the purpose of this ‘separation’. There it was argued that isolating the soul from the body was useful because it minimised our mind’s focus on the body, thus creating a certain sense of ‘critical distance’ from it. This distance, I suggested, is intended to provide an opportunity for us to consider the world around us in a way that is not, for once, refracted through the prism of the body. This helps to draw one’s attention to one’s own true rational nature, in turn highlighting the profound sense of affinity that exists between human beings and the cosmos. In this way, I suggested, Seneca hopes to create psychological conditions where we are best placed to begin to extend our sense of self-interest beyond the body, and towards the cosmos.

It seems plausible, though, that this same sense of critical distance might also provide an ideal opportunity to reflect on the ‘sordid’ and ‘apparent’ things that, in ordinary circumstances, tend to preoccupy us. For, having freed ourselves from the distractions of the body, having grown aware of our own quintessentially rational natures, we would surely be well-placed – indeed, virtually *primed* – to see the error of attaching so much value to things such as pleasure, wealth and the rest.

The core of this idea is, I believe, already implicit in the passage from the preface to book 3. However, in the equally programmatic preface to book 1, we get further confirmation. What we seem to get, in fact, is an illustration of this process in action. Having scolded Lucilius for not having yet ‘broken free’ from himself, Seneca begins his figurative depiction of the soul soaring into the heavens. In the course of this he says:

...consummatum habet plenumque bonum sortis humanae cum calcato omni malo petit altum et in interiorum naturae sinum venit. Tunc iuvat inter ipsa sidera vagantem divitum pavimenta ridere et totam cum auro suo terram, non illo tantum dico quod egessit et signandum monetae dedit, sed et illo quod in occulto servat posterorum avaritiae. Non potest ante contemnere porticus et lacunaria ebore fulgentia et tonsiles silvas et derivata in domos flumina quam totum circuit mundum, et terrarum orbem superne despiciens angustum ac magna ex parte opertum mari, etiam ea qua extat late squalidum et aut ustum aut rigentem, sibi ipse dixit: “hoc est illud punctum quod inter tot gentes ferro et igne dividitur!”

It [the soul] has consummated and fulfilled the blessings of human destiny only when it has trampled over every evil and has sought the heights and entered the inner recesses of nature. Then, as it wanders among the stars themselves, it takes delight in laughing at the paved floors of the wealthy and at the whole earth with its gold—I refer not just to what it has disgorged and given to the mint for stamping into coinage, but also to what it keeps hidden for the greed of posterity. The mind cannot despise colonnades, and ceilings gleaming with ivory, and topiary forests and rivers channelled into houses until it has toured the entire world and until, looking down from on high at the earth – tiny, predominantly covered by sea, and, even when it rises above it, mainly uncultivated, and either burnt or frozen – it has said to itself, “This is that pinprick that is carved up among so many nations by sword and fire!” (1 pref. 7-8).

Here, indeed, we see something like a playing-out of the three-point programme described in the preface to book 3. First, the soul is separated from “evil” (*mala*, cf. *sordida*) by seeking the “inner recesses” of nature. As it subsequently wanders amongst the stars (i.e. having achieved the separation of body and soul) it *then* (*tunc*) is able to turn back and re-evaluate (“laugh at”; “despise”) the things to which it was previously attracted. Indeed, tellingly, the things that the soul turns back to laugh at are precisely the sorts of tangible things that occupy the agents in the moralising episodes: wealth, political dominion, visually pleasing things.

This analysis, if correct, serves to explain the third (iii) of the key features of these passages: why the moralising passages are positioned where they are. The reason, we can now conclude, is because it is here that we most ‘detached’ from our usual body-focussed perspective, and thus are in the best possible position to re-evaluate our attachments to the things that normally dominate our attention. However, the same analysis also now allows us to explain (ii) in greater detail: why the protagonists of these passages seem to typify the sorts of attitudes and behaviours that Seneca is trying to lead us away from. For, if the purpose of these passages is to provoke moral reflection on a certain sort of moral error – namely, on our erroneous attachments to false goods – it would make sense for these passages to exemplify that which Seneca wishes us to reflect upon.

What is still not immediately clear, though, is (i); how do we explain the rhetorical and thematic discontinuity between these passages and the surrounding aetiology? What I would like to suggest is that that these features are intended to *enhance* the potential of these passages to promote ethical reflection. In particular, I suggest that the stark contrast in themes and sudden introduction of these passages is supposed to jar us – a jarring effect that is made all the stronger when combined with the process of ‘separation’ that precedes. As we have seen, physical study draws us away from ourselves, exposes us to what is divine in nature and, by the same token, what is divine in ourselves. It is, I suggest, with careful calculation that Seneca chooses this very moment to bring us crashing back down to earth, and to do so in the most powerful way possible. The combined effect of jarring rhetoric and extreme

thematic contrast with the adjacent aetiology is, I think, supposed to jolt us into moral reflection – into reflection on the discrepancy between what we ideally are, and how we normally behave. If correct, what this means is that the transitions between the aetiology and these passages are *supposed* to be abrupt; their subject matter is *supposed* to be disconnected with the aetiological investigation. For these features are, it turns out, a crucial part of the therapeutic design of these passages.

4. ‘Paradoxical’ natural phenomena

As it happens, this same framework might also serve to explain another recurrent feature of the text, whose discussion I have repeatedly postponed over the last two chapters. I am now talking about the numerous passages of what I have been referring to as ‘surprising’, ‘remarkable’ or ‘paradoxical’ phenomena. The discussion of these passages belongs here because, while not part of the moralising passages themselves, they nevertheless tend with considerable consistency to occur adjacent to them.

It was Stahl who first distinguished these (what she calls *mirabilia*) passages as a separate structural feature of the work – alongside the aetiology and the moralising passages – and she too who noticed the tendency of these passages to appear just before and/or after the moralising passages.⁴⁹ A number of scholars have resisted this aspect of Stahl’s reading,⁵⁰ however, I think she is right to distinguish them – if not quite as radically as she does. Indeed, while I can agree with Gross that Seneca still generally tries to explain these *causes* of these phenomena (and thus we ought to consider them, strictly speaking, as a part of the aetiology), the pronounced emphasis on unexpected or surprising phenomena in these passages, and especially their consistent placement around the moralising passages suggests, to me, that they were intended to serve a separate or additional function of their own.⁵¹

Examples of such passages include the discussions of deformed underground fish that surround the digression in book 3 (3.16.4-5; 3.19.1-3); the violent and destructive winds – ἐκνεφία, whirlwinds, and πρηστῆρες – before the digression in book 5 (5.12.1-14.4); the remarkable effects associated with earthquakes before the epilogue to book 6 (6.27.1-31.3);

⁴⁹ Stahl (1960); (1964), esp. 426-7. Stahl thinks the role of these passages is to make the transition from the ‘objective’ and ‘scientific’ aetiology, to the ‘philosophical’ and ‘subjective’ moralising passages. As the following makes apparent, while I agree with Stahl that these passages ought to be distinguished, I do not agree with her over their role in the work.

⁵⁰ Strohm (1977), esp. 315-16; Gross (1989), 110-11.

⁵¹ Gross, *ibid.*

and the spectacular fires that appear in the night sky that are discussed just before the anecdote about Hostius Quadra.⁵²

The writing of so-called ‘paradox literature’ was, as it happens, immensely popular during this period. Often aimed at mass appeal, such works tell tales of such amazing occurrences as two-headed children or, just as commonly, surprising natural phenomena.⁵³ However, aside from this more popular brand of ‘paradoxography’, paradoxes were also of special philosophical significance for the Stoics. The Stoics’ ethical theories were, of course, often regarded, and indeed presented, as paradoxical.⁵⁴ Famously, the Stoics often claim that only the wise person is free, or rich, or some other quality that would seem to be contradicted by, for example, her apparent slavery, poverty, etc.⁵⁵ One important point behind such paradoxes was that, if one’s reasoning faculty was in good health, then *nothing at all* about the world would seem paradoxical – be it a particular ethical theory, or a remarkable natural phenomenon.⁵⁶ Such paradoxes could thus play an important role in testing, as it were, one’s mental health. Equally, though, such paradoxes were supposed to be *provocative*, thereby serving to cajole us into reflecting more deeply about our own beliefs.⁵⁷

The ‘natural *paradoxa*’ that we find in the *Natural Questions* can, I think, be read in this context. However, the kind of reflection they are supposed to promote, I suggest, is not on our *moral* beliefs, per se, but rather on the beliefs we might hold about nature itself. One indication that this is the case comes from the passage of paradoxical phenomena that precedes the digression in book 3. Having made reference to the ‘paradoxical’ fact that there are vast underground spaces, which even contain kinds of fish, Seneca – imagining Lucilius’ incredulity – exclaims “Are you surprised by this? How much more incredible are the achievements of luxury! How often it either fakes or surpasses nature!” (3.17.2). Lucilius’ surprise at this phenomenon (rather than at the excesses of luxury) should, Seneca implies, give him pause; it highlights both the imperfect state of his own mental health, and also his

⁵² Cf. the discussion of the remarkable effects of water after the preface to book 3 (3.2.1-2); the discussion of spectacular fires in the night sky, frequently taken as ‘portents’, after the preface to book 1 (1.1.1-4 – mirroring those before the epilogue to this book); and the passage from 7.26.1 where Seneca considers problems including: the fact that our eyesight passes through the tails of comets; the different appearances of stars; Aristotle’s suggestion that comets predict stormy weather; the slowness with which comets appear to move.

⁵³ For a comprehensive study of such paradox literature, see Schepens and Delcroix (1996). See also Boys-Stones (2006).

⁵⁴ *SVF* 3.544; 3.547 – not to mention Cicero’s work dedicated to Stoic ‘paradoxes’ – *The Paradoxes of the Stoics* – and, polemically against such paradoxes, Plutarch’s *The Stoics talk more paradoxically than the poets* and *On common notions, against the Stoics*.

⁵⁵ *SVF* 3.589-610

⁵⁶ For this point, see Boys-Stones (2006).

⁵⁷ In this sense, their purpose was perhaps not unlike the paradoxes of Heraclitus which, on some readings at least, were intended to serve precisely this function – a point made by Boys-Stones (2006).

own misconceptions about nature – the result, we might infer, of his own over-reliance on sense-perception.⁵⁸

If this is right, the role of these *paradoxa* can be seen to complement the role of the moralising passages around which they congregate. While the function of the moralising passages is to provoke reflection on our *ethical* beliefs, these *paradoxa* serve to promote reflection on the beliefs we might hold about *nature*.

If this is indeed their function, this would explain why they occur where they do – i.e. in the same places as the moralising passages. For, occurring here necessarily means that these *paradoxa* are similarly juxtaposed with those points in the work when the most abstract and profound level of causal analysis has been reached.⁵⁹ This means, though, that these passages generally coincide with the revelation of the divine in nature, and the accompanying sense of affinity with the cosmos that this gives rise to. As such, it seems reasonable to think that one would, on these occasions, be well-placed to reconsider the beliefs about nature. Such beliefs might include that the world is governed by malevolent divinities, or, conversely, that there are no gods at all – conclusions that we might well infer from unnerving ‘portents’, on the one hand, or destructive phenomena, on the other.⁶⁰ Crucially, though, such beliefs would present a serious obstacle to our coming to regard the cosmos as something we should feel affinity with.⁶¹ Accordingly, it is essential that such beliefs are confronted; and this is what I think the passages of natural *paradoxa* might be doing.

This explanation, if correct, would also help to explain why, occasionally, there is delay between Seneca’s arrival at the highest level of causal analysis, and the subsequent initiation of the moralising episode. The clearest example of this occurs in book 6 when, having decided on the role of *spiritus* in causing earthquakes (along with all its Stoic, cosmobiological connotations), it is a further eight paragraphs before Seneca introduces the final

⁵⁸ Cf. 6.3.2 where, commenting on our surprise at the occurrence of earthquakes, Seneca asks: “Yet why do we find anything unusual? Because we grasp nature with our eyes, not our reason”.

⁵⁹ An interesting test-case for this comes from book 2. This book’s central discussion of divination, which is indeed formally marked as a digression (see Codoñer (1989), 1808ff.) is surrounded by passages dealing with paradoxical phenomena. What is unusual about this, of course, is that unlike the other digressions in the work, this is *not* a moralising digression. However, what it *does* have in common with the digressions is that it nevertheless sits at a point at which the highest level of causal analysis has been reached. Indeed, it is in this ‘digression’, if we recall, that we find one of the most overt descriptions of the Stoic god: “the ruler and guardian of the universe, the mind and breath of the world, the master and the craftsman of this creation, for whom every name will be appropriate...he it is on whom everything depends, the cause of causes” (2.45.1-2). This serves to confirm the idea that Seneca is purposely clustering these passages around points in the work where the highest level of causal analysis has been reached. To these passages in book 2 might be compared the long passage of remarkable phenomena that precedes the account of the flood in book 3 (3.20.1-26.8) – another non-moralising passage in a position normally occupied by a moralising one.

⁶⁰ Destructive phenomena could, of course, lead to either conclusion.

⁶¹ More on the role of physics in dispelling such beliefs in the next chapter.

epilogue.⁶² These paragraphs, though, are concerned with precisely the sorts of paradoxes we have been considering (many of which occurred during the recent Campanian earthquake – no doubt explaining the unusual length of this section). If this section plays the role proposed above, then the location of this passage here makes perfect sense – clustering around the points in the work at which reflection on such matters is likely to be most productive.

5. Conclusion

If the foregoing has any merit, it turns out that the very features that have frequently been considered perplexing and objectionable about the moralising passages stand, in fact, at the heart of their therapeutic purpose. What is more, the therapeutic role of these passages can be seen to complement the broader aims of the work as a whole, as outlined in the previous chapter. There it was argued that, in light of debate the with Platonism, the physics in the *Natural Questions* should be seen as an attempt to demonstrate how, through a carefully structured programme of physical study, an agent could be helped to transcend their usual restricted, body-centric perspective on the world. By distancing the mind from the body, and by drawing our attention to what we and the cosmos have in common, Seneca hopes to get the reader into a state in which they might genuinely feel a sense of οἰκείωσις towards the cosmos.

However, as we have seen, the very reason why such a process is necessary is that Seneca realises, as the Platonists suggest, that most people are altogether far too attached to their own bodies and the things that serve (or seem to serve) the needs of the body – pleasure, wealth, and the rest. It is precisely our over-attachment to such things which leads us astray, causing the natural progression of οἰκείωσις to, in effect, stall. Accordingly, part of the challenge facing the Stoics is not merely to show how one could come to achieve a sufficient degree of οἰκείωσις towards the cosmos, but also how one can *break* one's sense of attachment to these commonly misidentified 'goods'.

It is, I suggest, to this second problem that the moralising passages are addressed. As we have seen, the passages depict agents oriented towards the sorts of objects that most people *do* regard as the good. As well as helpfully signposting the relevant issues at stake in the work, these passages are meant to prompt reflection on the true value of such objects. By introducing them abruptly, by filling them with extreme and graphic examples of vice, and, in particular, by locating them at points in the work where the reader is at their most distanced

⁶² The same might be said for book 2, following the central 'digression' on divination – see n. 59 above. In this book, though, the gap between the highest level of causal analysis and the epilogue is much smaller.

from their bodies, Seneca hopes to maximise the potential of these passages to provoke genuine reflection on where we ground our understanding of the good.

Studying Physics in the Hellenistic Stoa

1. Introduction

In the preceding chapters we have focussed primarily on interpreting the *Natural Questions* within its *contemporary* context. This approach has proved fruitful; by paying attention to contemporary currents of philosophical debate, we have been able to explain many of the features of the work that have often been seen as unusual and perplexing. At the same time, this approach has left one important question about the *Natural Questions* unanswered: how Seneca’s approach to physics compares with what we find in the Hellenistic Stoa.

Of course, we already know that Seneca certainly *presents* physics in an unusual manner. As the discussion in Chapter 1 showed, Seneca’s particular combination ethics and physics does seem to be unique in the tradition of Stoic physical writing. However, this does not necessarily imply any significant theoretical innovation with regard to the role of physics, and its relationship with ethics – any more, to draw a parallel, than Lucretius’ unique presentation of Epicurean philosophy necessarily represents doctrinal innovation on his part. The emphasis in this chapter, then, will not be on Seneca’s presentation of physics, or on the significance of his inclusion of ethical passages within the *Natural Questions*. Indeed, explanations for these features of the work have been offered in the two preceding chapters. Rather, my aim now is to consider to what extent Seneca’s views on the value of physical study represent conservatism or innovation with regard to Hellenistic Stoicism.

To assess this question, however, we need first to understand what the role of physics was supposed to be according to the Hellenistic Stoa. The problem here, however, is that this question is highly contentious, some going so far as to deny that there was ever a consistent view.¹ As I shall argue, however, this debate has tended to focus unduly on just one aspect of the issue. In particular, I argue that a central question that has been widely overlooked is what we, as agents, are supposed to get out of engaging in the *study* of nature. The answer, it turns out, is that there are a number of ways in which the study of physics can help us. And, significantly, it turns out there are striking parallels between Hellenistic views on this, and what we have seen in the *Natural Questions*.

¹ Inwood (2009), 206: “the idea that there is a single, general Stoic view on the question of the role played by physics should probably be shelved”. Annas (2007) also expresses doubt about a single Stoic view on the matter. Ludlam (2003) casts doubt on the idea of Stoic ‘orthodoxy’ as a whole. Cf. also Reydams-Schils (2011), who suggests that the Stoics as a whole were less bound to a notion of school authority than other schools.

2. Stoic physics and stoic ethics: the modern debate

It has almost always been supposed that Stoic physics, somehow or other, plays an important role in Stoic ethics. This much is indicated by Stoic claims for the outstanding ‘unity’ of their system,² and the organic relationship between the three parts of philosophy.³ Indeed, it has frequently been said that Stoic physics actually plays a ‘foundational’ role in Stoic ethics – that is, the Stoics’ ethical theory is in some sense grounded in the views that they have about the physical cosmos.⁴ This is not surprising: a fair amount of evidence seems to support this supposition. Chrysippus, for instance, is recorded as saying: “It is not possible to discover any other beginning of justice or any source for it other than that from Zeus and from the universal nature, for thence everything of the kind must have its beginning if we are going to have anything to say about good and evil”; and Plutarch, who is our source here, goes on to offer two further direct quotations from Chrysippus expressing a similar idea (*Sto. rep.* 1035CD, trans Cherniss). Likewise, Cato, in Cicero’s *De finibus*, argues that “he who is to live in accordance with nature must base his principles upon the system and government of the entire world” (*Fin* 3.73). Indeed, a considerable amount of prima facie reliable evidence can be adduced to support the idea that Stoic ethics is grounded in Stoic physics.

What is more, though, the reasoning behind the claim seems relatively clear. The cosmos, so the argument goes, represents the highest expression of a rationality in which we ourselves share, and thus the best kind of life for a human being – where ‘human nature’ finds its highest expression – is a life in which we try as best we can to conform ourselves to the course of nature as a whole. This, then, is the argument we seem to get in an important account, purportedly going back to Chrysippus, found in Diogenes Laertius (7.85-6). A life lived in this way is ‘good’, therefore, both because it fully conforms with our own natures as human beings (it is, in other words, good relative to us); but it is also good in an *objective* sense, precisely because a life lived in this way contributes to the wellbeing of *everything that exists*: the entire cosmos.⁵ This, it will be noted, is the conceptualisation of Stoic ethics that I have been working with in previous chapters.

² *De fin.* 3.74-5, with a new, sceptical (with a small ‘s’) reading of this claim in Inwood (2012).

³ D. L. 7.39-41, who describes philosophy with the famous similes of the egg, the garden and the living being. Cf. S. E. M. 7.19; Seneca *Ep.* 88.25-8. For discussion of these images, and an important discussion of the relationship between the ‘parts’ of philosophy, see Ierodikonou (1993), esp. 71ff.

⁴ Classically, Long (1968), 341: “Stoic ethics is ultimately parasitical on physics” and, less strongly, (1989 (= 1996a)), 195: “The Stoics’ eudaimonism is principally grounded in their beliefs about the relation in which human beings stand to a determinate and providentially governed world”. Another major proponent of this view is Striker (1991), esp. 1-13.

⁵ On the importance of the objectivity of Stoic ethical claims, see Chapter 2.

Nevertheless, some scholars have resisted this interpretation, most forceful among whom has been Julia Annas.⁶ Annas argues that an ethics grounded in cosmic nature would not in fact *be* ethics, properly speaking. It would “define virtue as conformity to some standard which is defined in ways that are external to the basis of virtue”. Annas contends that, since Aristotle, the starting point of ancient ethical theory had been to determine the peculiar good of the agent, which, so determined, would “enable the agent to make sense of her life and correctly order her priorities.” The appeal to cosmic nature, Annas maintains, achieves the opposite of this: “it pulls the agent away from the kind of attachment to her own concerns which is needed for useful reflection on her final end to be possible”. Even if one *were* to gain an understanding of cosmic nature, she argues, “this would still not be relevant to any of the concerns I need ethical theory for”, given Annas’ understanding of ancient ethics.⁷ Against those who respond by saying that cosmic nature provides the rational pattern to which human agents try to conform their own rationality, Annas argues that such a pattern would be irrelevant until we had reflected on rationality from the human point of view – that is, from “within” ethics. Insofar as ‘nature’ plays a role in Stoic ethics, it is *human* nature about which the Stoics were concerned; it is this that grounds and shapes ethical theory. Physics, Annas therefore argues, does not contribute any content to Stoic ethics. It is instead significant only as the second-order study *of* ethics, through which we come to see the broader *significance* of our ethical doctrines.⁸

Annas’ interpretation has met with resistance from several scholars, on a number of fronts.⁹ For one thing, scholars have been unmoved by her attempt to downplay the body of

⁶ Various in Annas (1993), 159-179; (1995); (2007). Others, though in a minority, have expressed sympathy with Annas’ view, namely Engberg-Pederson (1986); (1990), esp. Ch. 2; Gill (2004).

⁷ Annas (1993), 160-1.

⁸ Annas, *op. cit.*, 164. It should be noted, however, that Annas maintains that in *later* Stoic writing, unlike its earlier counterpart, we *do* find evidence of the standard scholarly interpretation of Stoic ethics. Writers such as Epictetus and Marcus Aurelius *do* frequently appeal to cosmic nature in the course of their ethical arguments; but in doing so, Annas maintains, they break from the traditional Stoic approach. Moreover, Annas judges the outcome of such a strategy as invariably negative. The result is what she calls the “alienation” or “only a part” strategies, in which the concerns of the individual are unhelpfully minimised in reference to the wellbeing of the cosmos as a whole. Curiously, she does not mention Seneca in this context. However, considering what we have seen in previous chapters, the *Natural Questions* in particular seems to contradict the idea that one can only achieve negative outcomes through the ‘cosmic’ approach. Indeed, rather than making the agent feel as though they are a *mere* part, Seneca is clear that seeing one’s place within the cosmic context actually *elevates* one’s sense of status within the cosmos, helps one to realise one’s true divine nature and one’s close relationship with the cosmos as a whole. What is more, as we shall see below, these ideas are also clearly visible in evidence for earlier Stoicism.

⁹ Particularly Cooper (1995), (1996); Inwood (1995); Boeri (2009); Klein (2010), esp. ch. 2; Bénatouil (2014). There is a degree of balance in Betegh (2003), though he too ultimately comes down against Annas’ interpretation.

evidence that seems strongly to favour the traditional interpretation.¹⁰ Others have questioned her reading of the ethical tradition since Aristotle, pointing out that Aristotle himself looks ‘outside’ the ethical, to the natural world, to formulate and justify his own ethical position.¹¹ However, even if Annas were right about these things, it is also doubtful, philosophically, whether her conclusions about the ‘external’ nature of Stoic ethics would follow from the fact that Stoic ethics is grounded in cosmic nature. For it has been pointed out that the Stoics did not conceive of the need to follow cosmic nature *as* conformity to some impersonal external standard. Rather, as already mentioned above, the Stoics argued that conforming oneself to the rational standard of the cosmos was the precise way in which we achieve the highest expression of our *own* rational natures. We do not, as Annas seems to interpret the position, try to conform ourselves with nature as a whole simply because this is what the cosmos demands of us;¹² we do so because it is in *our own* best interest to do so.¹³ Indeed, as has been argued in previous chapters, the aim of Stoic ethics appears to be to get to the stage at which we view the welfare of the cosmos as coinciding perfectly with our own *self*-interest. Far from drawing us *away* from our proper ethical concerns, then, it is precisely by referring to the cosmos as a whole that we get it right about what is truly good *for us*. While Annas is no doubt right that we must also know *ourselves* in order to recognise the significance of the cosmic standard of rationality, it also seems clear that coming to see one’s place within the cosmic context is a necessary part of what it means to truly understand oneself (an idea we have already seen in Seneca, though one which we shall also find in the Hellenistic evidence).

In my opinion, then, there does not seem to be any particular reason – philosophically, or in terms of evidence – to doubt that the Stoics believed that their ethical system was grounded in certain beliefs they held about the cosmos. However, this conclusion does not, I suggest, get us very much closer to understanding the role of *physics* – that is, the actual business of studying nature – in relation to Stoic ethics. For it seems to me that the actual study of nature is something to be distinguished from the question that normally occupies scholars – which is

¹⁰ For analysis of Annas’ use of sources see especially Inwood (1995a).

¹¹ Cooper (1996).

¹² This, however, is implied by Long (1989, 186ff), with his reference to a ‘theocratic postulate’.

¹³ On which Vogt (2008b), ch. 4, esp. 215-16. However, seemingly *contra* Cooper (1996), who argues that the sage would see the obligations of virtue as something “imposed” on her by cosmic nature. In this argument, though, Cooper seems to contradict himself, since shortly before he emphasises that the sage must not merely accept local adversity, but actively *desire* it. While one might *accept* something justly imposed on us, it is difficult to see why we should actively *desire* it, in the Stoic model, unless it were not contributing to our own wellbeing *as well*. If anything, Cooper here opens himself up to the sorts of concerns raised by Annas.

essentially the importance of the ‘cosmic context’ for Stoic ethics.¹⁴ On my reading, the cosmic context is significant because it provides the ultimate grounds for determining whether something can be considered good, and thus serves as the ultimate justification¹⁵ for the sage’s actions. If asked why it is a good thing (indeed *good*, rather than merely indifferent¹⁶) to pursue a course of action that will involve considerable personal hardship, the sage can point to the fact that it serves to promote the rational order of the cosmic system, (which in turn promotes her own nature because the sage, as a participant in cosmic reason, has a stake in the rational ordering of the cosmos).

But if this reading is right, what precisely does the sage need to know in terms of physical theory? Does she really need to know about principles, elements and *πνεῦμα*? What about the size of the sun, the substance of the moon, and the patterns of the tides? On the contrary, all that the sage would seem to need to know in order to approach hardship in the way described above is that the cosmos is, in fact, providentially ordered – which is to say, ‘good’. Of course, the more detailed conclusions of physical investigation might help the sage to *come* to this conclusion.¹⁷ But surely the whole gamut of Stoic physical theory is not necessary for her to do so. In fact, the idea that the cosmos was, on the whole, ‘good’ is relatively uncontroversial in ancient philosophy. The Sceptics obviously withheld judgement on the matter, and Epicurus actively denied it; but in fact Epicurus was so exceptional in this regard that he had actually to *argue for* the contrary position – arguments that other schools viewed with derision. Of course, the Stoics for their part did offer arguments purporting to prove the providential ordering of the cosmos, as preserved most fully in book 2 of Cicero’s *De natura deorum*. But in the same book, Balbus begins his argument with the claim that the providential order of the cosmos is all but self-evident – hardly requiring argument, in fact –

¹⁴ This distinction between the role of the cosmic nature and the actual act of contemplating was already drawn by Festugière (1949), 75-76.

¹⁵ Klein draws attention to a distinction between the role of the cosmic context in terms of ‘justification’ and ‘motivation’ (2010) ch. 2, esp. 33 n. 94). I do not intend to draw any such distinction. As it happens, I believe that the cosmic context serves as both ultimate justification *and*, in some circumstances at least, a positive source of motivation to act. This much is made clear by the famous fragment of Chrysippus (Epictetus, *Diss.* 2.6.9 – more on which in the note below) in which he suggests that if he knew the cosmos required him to be ill, he would *seek* illness.

¹⁶ Indeed, since Socrates at least, and certainly in Stoicism, all actions are conceived as being directed towards some good. If the sage merely saw actions that would lead to adversity as indifferent to her happiness, there would be no reason for her to take them. This, in fact, presents a further problem for Annas’ interpretation of Stoic ethics. While her ‘internalist’ account can account for why adverse circumstances do not affect the sage’s happiness, it can provide no reason for why the sage would regard such actions as towards the *good*. And yet this positive attitude towards even adverse circumstances is clearly described by a famous fragment of Chrysippus, where he claims that if he knew he was fated to be ill he would *choose* illness (Epictetus *Diss.* 2.6.9) – implicitly requiring him to see this action as serving the *good*.

¹⁷ More on this below.

and in any case demonstrable on the basis of some quite simple observations of the world.¹⁸ The fact the Stoics *had* arguments to prove that the cosmos was providentially ordered does not necessarily mean that one needs to know them in order to believe this. So again, we must ask what it is precisely that we are supposed to gain by going out and studying nature. But the question becomes all the more pressing when we realise that there is considerable evidence to suggest that one might become virtuous without *ever* studying physics.

3. Why study physics...at all?

In fact, from a historical perspective, it is somewhat surprising that the Stoics advocated the study of physics in the first place.¹⁹ To begin with, like several of the Hellenistic schools, the Stoics located themselves in a tradition tracing its ancestry to Socrates. The Stoics, indeed, frequently marked out Socrates as the ideal philosopher, and presented themselves as his true philosophical heirs. Considering this, though, it is puzzling to note that Socrates was commonly believed to have *renounced* the study of physics, in favour of an exclusive focus on ethics:

Socrates was the first (this is a point accepted by all) to summon philosophy away from the obscure subjects nature itself has veiled—the questions all his philosophical predecessors had been concerned with—and to direct it towards ordinary life. He set it onto investigating virtue and vice and good and bad in general, considering celestial subjects to be far beyond our knowledge or, even if they were perfectly knowable, still completely irrelevant to the good life. (Cicero, *Acad.* 1.15, trans. Brittain)

There is a certain amount of variation in these reports; other evidence does not record the stronger claim that physics would be useless *even if* it were knowable, focussing instead on the mere difficulty of ascertaining knowledge of nature. Nevertheless, we find similar reports across a remarkable period, ranging from the time of the Socratics right through into the Roman period, and beyond.²⁰ Of course, it is not clear to what extent this view represented that of the historical Socrates; but the fact that a fairly widespread and stable tradition rose up

¹⁸ E.g. at *ND* 2.4, Balbus argues that the existence of the gods “seems not even to require arguing. For when we gaze upward to the sky and contemplate the heavenly bodies, what can be so obvious and so manifest as that there must exist some power possessing transcendent intelligence by whom these things are ruled?”. For discussion of this point, see Schofield (1980).

¹⁹ The discussion in this section owes a lot to Inwood (2009, esp. 201-7) who also draws attention to these apparent contradictions in the evidence. From these, though, Inwood concludes that there was never a consistent view on physics in the Stoa. In this we disagree. I believe that these apparent inconsistencies can be reconciled once we see that physics was not something that everyone *needs* to do, but an activity that is engaged in for a specific *therapeutic* function. As such, the different emphasis that different Stoics place on physics (where this is not down to specific personal interests) may simply be the result of differing therapeutic goals.

²⁰ E.g. Xenophon, *Mem.* 1.1.11-12; Eusebius, *Praep. ev.* 15.62.7.

around Socrates as someone who rejected physics does at least raise the possibility that there is a tension here to be addressed.

Then again, one might suppose that this traditional picture of Socrates is not all that significant – other representations of Socrates were available (albeit from Plato), and it is not as though the Stoics lived or died on their loyalty to him. However, as it turns out, Socrates is just the tip of the iceberg.

It is, for instance, well-known that Zeno's philosophy was influenced by Cynicism, presumably mediated through his teacher Crates. Indeed, the influence seems to have been so pronounced that later Stoics (vainly) attempted to eradicate the more Cynicising aspects from his work.²¹ But this connection with the Cynics is important for our question for a number of reasons. First, not only did the Cynics also trace their philosophical ancestry to Socrates, but, like him, they rejected physics in favour of ethics alone. Despite this divergence, though, there are a number of close doctrinal similarities between the Cynics and the Stoics – doctrines, moreover, that in the Stoics' case are generally seen to be closely bound up with their physics. Most striking of these is the shared claim that the human *τέλος* is 'to live in accordance with nature'. While, as we have seen, there is some debate in Stoicism about the application of 'nature', it is (paradoxically) quite clear in the Cynics' case that this requirement had a cosmic dimension to it. This is suggested by their adherence to a form of cosmopolitanism – another theory, of course, which the Stoics themselves came to adopt.²² Strikingly, then, the Cynics felt able to place their ethics in a cosmic context without the need to do any studying *of* the cosmos at all.

But the puzzle does not stop here. Even within the Stoa there were those who thought the study of physics unnecessary – I am now speaking about Aristo of Chios. Aristo is, in fact, sometimes interpreted as being a Cynic *rather than* a Stoic;²³ but *he* certainly did not think of himself as one. Furthermore, although the later tradition painted him as a renegade, his contemporary influence seems to have been considerable: we know, for instance, that he had a following of so-called 'Aristonians'. Whatever the ultimate doctrinal differences between Aristo and the strand of Stoicism that became dominant, his rejection of physics nevertheless suggests that in the early Stoa, at least, the place of physics was not completely

²¹ D. L. 7.34.

²² Moles (1996) argues convincingly against the idea that Cynic cosmopolitanism was merely a negative theory, tantamount to a rejection of the polis and its conventions. Among other points, Moles points out that the doctrine is formulated positively: it is not that the Cynic is *without* a polis, but that he is at home *everywhere* in the cosmos. Furthermore, there is some evidence to suggest that the doctrine implied allegiance to the whole of mankind and, indeed, the earth itself (Dio Chrysostom 4.13; Epictetus, *Diss.* 3.24.64).

²³ E.g. Porter (1996).

unquestionable. The reason why physics became an integral part of Stoic philosophy, therefore, becomes all the more intriguing.

Of course, Aristo's conception of the *τέλος* differed from that of other Stoics (although it should be noted that several fragments suggest that he too saw ethics as operating within a cosmic context, and that it was merely the fact that physics was *unknowable* that led to its rejection).²⁴ One might also point out that there were significant doctrinal differences between Stoics and Cynics. In the Cynic case in particular, though, one also has to deal with the surprising claim that the Stoics regarded Cynicism as a "shortcut to virtue".²⁵ What is especially significant about this claim, moreover, is that the context it turns up in is precisely that in which we hear that the Cynics did away with physics²⁶ – the implication surely being that Cynicism is a 'shortcut' *precisely because* it did away with this part of philosophy.²⁷ The fact that the 'virtue' at stake here is of a kind that the Stoics themselves would recognise is supported by other evidence, which suggests that the Stoic wise person might even act like a Cynic herself. Cicero's Balbus, for instance, reports that "Some Stoics say that the Cynics' philosophy and way of life is suitable for the wise person, should circumstances arise conducive to its practice".²⁸ Therefore it would seem that at least "some" Stoics believed that, in the right circumstances, one could become a *Stoic sage* by taking this Cynic 'shortcut' – in which the study of physics is omitted completely.

If it was thought possible to become a sage without studying physics at all, why then do the Stoics pay any attention to this field of inquiry? White explores two philosophical motivations that might theoretically have led the Stoics to believe that a Stoic sage would require a detailed knowledge of physical theory – one epistemological, the other psychological.²⁹ White's epistemological suggestion is that the Stoics might have maintained that the sage's belief in the goodness of the cosmos must not rest on mere *belief*, but rather full *knowledge*. This might involve knowing not merely *that* the cosmos exhibits a perfect pattern, but also *what sort* of pattern. Such a position would presumably necessitate a very large, or even comprehensive knowledge of the physical world. However, aside from the

²⁴ Importance of universal nature: *SVF* 1.361; 359. Physics merely unknowable: D. L. 7.160.

²⁵ D. L. 6.104; 7.121.

²⁶ D. L. 6.104.

²⁷ Along, of course, with logic.

²⁸ *Fin.* 3.68 – albeit also noting that some Stoics reject the idea. However, the context makes clear that their issue with Cynicism is the flagrant violation of social conventions and niceties for which the Cynics were famous.

However, reservations about this extreme convention-flouting side of Cynicism does not count against the basic acknowledgement of the similarity in their ethical ideal. See also Epictetus (*Diss.* 3.22) for a comparably positive evaluation of the Cynic way of life; D. L. 7.101: The wise man "will also play the Cynic".

²⁹ White (1985), esp. 71ff.

intuitive implausibility of the sage having to know literally everything about the cosmos,³⁰ White himself admits that there is virtually no evidence to support such an assumption. Indeed, Kerferd's much-cited analysis of the evidence on this question seems to rule out such a position.³¹

White's 'psychological' motivation relates to his wider interpretation of Stoic ethics. He argues that in order to achieve the Stoic virtuous disposition, the agent must believe that the cosmos is perfectly good. Having this belief about the cosmos, he argues, allows the agent to see "local unsatisfactoriness" as part of a broader pattern that is good overall. This in turn allows the agent to "downgrade" the "badness" of local circumstances so that they do not "mind" them anymore.³² As to why a detailed knowledge of physics might be necessary for this move, White suggests that the Stoics might not have thought it sufficient for the sage simply to know that local disadvantage fitted into the perfect cosmic pattern *somehow or other*, but also precisely *how* it did so. However, White admits that he finds no evidence to support this position either. Moreover, he freely admits that neither of these conditions seem necessary for the Stoics to maintain the position that they do. As he points out: "believing that the universe exemplifies the perfect pattern does not require that one have detailed knowledge of how it is put together".³³

And yet, there may be another way in which the sage might, after all, turn out to have a considerable knowledge about the cosmos. This stems from the idea, found widely in the evidence, that the study of physics is an activity that is peculiarly suitable to human beings. Indeed, a variety of evidence, including the *Natural Questions*, alludes to the idea that human beings are simply *designed* to engage in this activity, and in doing so one does something that

³⁰ Although, some scholars nevertheless maintain this, e.g. Christensen (1962), 63; more recently Boeri (2009), 191 (who thinks that the sage would even be able to predict future events, so clear is her knowledge of the causal nexus).

³¹ Kerferd (1977). There is one piece of evidence that Kerferd finds which could conceivably be taken to suggest omniscience (*SVF* 3.131: the wise person is "ignorant of nothing"). However, as Kerferd plausibly suggests (128-9) this is likely to mean not that she knows *everything*, but simply that within her knowledge there is no room for error (see also Vogt (2008), 118-20). Kerferd's interpretation, moreover, finds support from the evidence which suggests that when a wise person was unsure of what she perceives, she would *withhold* assent (*SVF* 3.548). Presumably, faced with some obscure natural phenomena, the wise person would simply withhold assent regarding its causes. Consequently, this fragment is actually consistent with the idea that the sage might know very little about the cosmos at large.

³² As it happens I disagree with White on this count. As Annas (2007, 69f.) rightly argues, the reason why the sage does not 'mind' local adversity is because she views it as indifferent. The sage does not refer to cosmic nature to make local circumstances bearable but, as I have argued, because she sees local circumstances as contributing to the order of the cosmos, which is in her own self-interest to promote.

³³ White (1985), 70-1. Indeed, White in fact suggests that this might explain why later Stoics (apparently) paid less attention to physics. However, as we saw in the Introduction, this impression of later Stoicism is a misconception.

is fundamentally in accord with one's nature as a human being.³⁴ If the sage, though, is seen as the optimally 'natural' human being, then surely we could assume that she would, as a matter of fact, strive to engage in the study of the cosmos – and in the course of this acquire a considerable understanding of physical theory?

The trouble is, however, that while the sage would no doubt *strive* to study the cosmos, this does not necessarily mean that she would actually end up doing so very frequently – and possibly never at all. For one thing, there is evidence to suggest that the study of physics is, in fact, a 'leisure' activity³⁵ – indeed, one could hardly imagine that the sage would break away from other pressing (social, political) duties to go and study nature.³⁶ Whether or not this means that physics is merely something we do to productively fill our leisure time, or rather something which we actively strive to find leisure time *for*, is unimportant here; it remains the case that the sage would need to *have* some leisure time in order to be able to *do* the studying. And yet the Stoics are clear that leisure is something which is not 'up to us': it is dependent on the circumstances.³⁷ Thus there is no guarantee that the sage will ever end up actually being *able* to study the cosmos.³⁸ Indeed, even if one were to dispute the idea the Stoics believed that theoretical activity of this kind was to be reserved for leisure, as some indeed have,³⁹ it remains perfectly reasonable to assume that there are circumstances in which physical study will simply never be possible – if, for instance, one happens to be imprisoned, or blind, for one's whole life.

³⁴ Inwood (2009) calls this an 'intrinsic' (as opposed to an 'instrumental') reason to study nature.

³⁵ E.g. Cicero *De fin.* 4.12.

³⁶ Forschner (1998), however, claims that the emphasis on the need for leisure is an innovation of Cicero, as a result of his 'Roman' concern with the pre-eminence of the practical life (although, against such a reading of Cicero, see Reydams-Schils (2016)). Forschner claims that the early Stoics placed a far greater importance on theoretical activity than is often supposed. While I can to some extent agree with Forschner that the Stoics did think that 'θεωρία' had inherent value (insofar as it is a quintessentially 'natural' activity for a human being), I strongly disagree with him that the ethical benefits of studying physics were of secondary importance to this inherent value. Indeed, considering the therapeutic frame of Stoic philosophy, discussed below, it would seem that the ethical benefits to be gained from physical study were at least as important as the inherent desirability of the activity. Furthermore, the passage from *Tusc.* 5 on which Forschner bases his reading (a passage which I also discuss below) seems, in fact, to confirm that ethical benefit is at the core of the study of physics. For further comment against Forschner's reading, see Bénatouil and Bonazzi (2012), 2.

³⁷ Epictetus *Diss.* 4.4.1-4.

³⁸ These considerations seem to count against Forschner (1998), who suggests that θεωρία would have been a central part of what it means to be virtuous. It is true that the Stoics advocated the 'mixed' kind of life – involving both theoretical activity and action (what they called the 'rational life' – D. L. 7.130). But there is little to suggest that this means engaging in θεωρία was a *requirement* for virtue. Rather, θεωρία must surely be something we *strive* to engage in, just as we (or rather the sage) *strives* to engage in politics. In both cases, however, it is clear that circumstances may prevent it (see e.g. Seneca's argument for political withdrawal in *Ot.*, and frequently in the *Letters*). For further reflection on the importance of θεωρία in Stoicism, see Bénatouil (2009); (2013).

³⁹ See n. 36, above.

But this actually turns out to be a compelling reason for the Stoics *not* to make the study of physics, and thus a detailed knowledge of physical theory, a requirement for becoming a sage. For they, unlike some of their rivals, were keen to emphasise the egalitarian nature of their ethical ideal. As Seneca puts it: “Virtue shuts the door on no one. It is open to everyone and lets us all in, invites us in: the freeborn, ex-slaves, slaves, kings, and exiles” (*Ben.* 3.18.2). This position, however, could not be maintained if the Stoics held that an extensive amount of physical theory was necessary to become a sage. While one might *strive* to engage in physical study – as a quintessentially human thing to do – the truth is that there are many circumstances in which one might be prevented from doing so.

We seem to be in a curious situation, then, that despite regarding physics as an integral part of philosophy, despite developing a sophisticated body of physical theory, and despite writing extensively on physical topics themselves,⁴⁰ there is no evidence to suggest that the Stoics saw any philosophical imperative to study physics. Does this mean that the Stoics are, after all, basically in accord with their Socratic heritage, believing that ethics should be our primary concern, while physics should be reserved for, at most, a productive way to fill our leisure time?

Fortunately, I do not think we need to accept this paradoxical conclusion. The solution to the problem emerges, I think, when we cease to view Stoic physics, and indeed Stoic philosophy as a whole, as a body of knowledge that one needs to know in order to become virtuous. For this is not, as it happens, how the Stoics themselves thought about philosophy. Rather, the Stoics believed that the purpose of philosophy was to *restore* us to a state of accord with nature, from which we have departed because of the corrupted state of our rationality. What we gain from philosophy is not *knowledge* as such, but *therapy*. And once we realise this, the amount of attention one ought to pay to physical study turns out to be dependent on one’s specific therapeutic needs.

The notion of ancient philosophy as broadly ‘therapeutic’ is not new, particularly with respect to Hellenistic philosophy.⁴¹ But the Stoics have a very specific theoretical reason for regarding it as such. The best account of why this is comes from Seneca’s 90th Letter, and the account he gives there of the development of human society. Here Seneca explains how the

⁴⁰ See Chapter 1.

⁴¹ See e.g. Blumenberg (1985), 243-325, Voelke (1993); and of course, on the therapeutic thrust of ancient philosophy more widely, the work of Hadot, (1995); (2002). Sellers (2007) on the other hand, seems to suggest that it is primarily *post*-Hellenistic philosophy that approached philosophy within a therapeutic framework, where we find a new emphasis on so-called ‘spiritual exercises’. More on this below.

earliest men, unacquainted with sources of corruption, lived in perfect accord with nature. Seneca, it is true, does not think that these men were *sages* (or at least, not all of them: their leaders may have been (90.5)); but their simple lack of corruption meant that they were not in need of further instruction in how to live: they simply ‘followed nature’. As time went on, however, mankind fell away from this innocent state – brought on, Seneca believes, by the development of technology, and the corrupting influence of luxury that this brought with it. Crucially, Seneca tells us that it was only *now* that philosophy arose – precisely, it seems, because it was only now that it became *necessary*, as a way to counter the forces of rational corruption.⁴² Philosophy, then, is fundamentally *corrective*: it aims to counteract the corruption that blights the reasoning faculties of humanity.

This therapeutic conception of philosophy helps, I think, to resolve many of the apparent inconsistencies among the Stoics’ views on physics. For a start, what the therapeutic model reveals is that we are actually posing the wrong question entirely when we ask whether the *sage* would have to know a great deal of physical theory in order to be a sage. For philosophy, in an important sense, is not *directed* at the sage – any more than medicine is directed at the healthy person. The question that we should instead be asking is how the study of philosophy in general, and physics in particular, can help those of us who need help to get to – or rather, get *back* to – the optimally natural state.

What becomes apparent, though, is that the help that each of us needs in this respect can vary considerably. Seneca, again, is instructive here:

“But what, then,” people say, “have not certain persons won their way to excellence without complicated training? Have they not made great progress by obeying bare precepts alone?” Very true; but their temperaments were propitious, and they snatched salvation as it were ‘by the way’. For just as the immortal gods did not learn virtue – having been born with virtue complete, and containing in their nature the essence of goodness – even so certain men are fitted with unusual qualities and reach without a long apprenticeship that which is ordinarily a matter of teaching, welcoming honourable things as soon as they hear them. Hence come the choice minds which seize quickly upon virtue, or else produce it from within themselves. But your dull, sluggish fellow, who is hampered by his evil habits, must have this soul-rust incessantly rubbed off. Now, as the former sort, who are inclined towards the good, can be raised to the heights more quickly, so the weaker spirits will be assisted and freed from their evil opinions if we entrust to them the accepted principles of philosophy.

(Seneca *Ep.* 95.36-7, trans. Gummere)

⁴² For the importance of this narrative in Stoicism, both as a strategy of theodicy and as a methodological principle, see Boys-Stones (2001), Ch. 1.

For the majority of us – dull, sluggish, with evil habits – a fairly extensive course of philosophical training might be necessary, if only to make up for our lack of natural ability.⁴³ Such training, we can presume, would likely (though not *necessarily*) involve all three branches of the philosophical curriculum. On the other hand, however, those born with naturally propitious temperaments and abilities – those who have somehow avoided the rational corruption that afflicts the rest of us – might require very little philosophical training indeed. Such a person, it seems, would be able to achieve the perfect state without even having to know a great deal of *ethical* theory – achieving virtue, Seneca says, with the barest of ethical precepts.

Could such an exceptional individual have been found, according to the Stoics, in the person of *Socrates*? Indeed, while there is no positive evidence to suggest that the Stoics made this argument, this seems an entirely plausible way in which they could at once have considered physics an integral part of philosophy, and yet have regarded Socrates – the notorious disavower of physics – as the ideal philosopher, even a sage. Someone of *Socrates*' supreme natural ability, the Stoics could have maintained, would simply not *need* an extensive amount of training in physics to achieve the heights of human excellence. This need not mean that Socrates had no views about the cosmos *at all* – he evidently did believe in the gods and their providence, for instance. But this, they might have maintained, was all that he needed.

The same consideration might also explain why Cynicism might (sometimes at least) provide a 'shortcut' to virtue. Earlier we associated this claim with the idea that the Stoic sage might live as a Cynic. One important qualification to this claim, as reported by Cicero, was that the sage would live in this way only "*should circumstances arise conducive to its practice*" (my emphasis). The context makes clear that the sorts of 'circumstances' Cicero has in mind here are socio-political ones, since it is precisely while Cato is describing the Stoic views on social structures that the claim is made. So the implication of this claim is surely that it is only in *ideal* socio-political circumstances that it would be possible to live like a sage. While this is again speculative, it does not seem implausible that a similar qualification might apply to the claim that Cynicism represents a 'shortcut' to virtue. In an *ideal* society, such a shortcut might well be possible; for in such a society there would not be

⁴³ Again, though, it is important to point out that, unlike the Platonists, the Stoics do not *rule out* such a person being able to achieve virtue. It does seem to be the case, however, that they would be far less *likely* to do so, unless they received considerable philosophical training. We can assume, then, that even though the Stoics thought that anyone *could* achieve virtue – even someone held in slavery for their whole lives – such a person would likely have to have exceptional natural abilities (which, of course, makes perfect sense).

the corruption that, elsewhere, might necessitate a course in physics (and logic). Indeed, just as Seneca says that an *ideal person* (someone who has *avoided* extensive corruption) in an ordinary society might be able to become virtuous without extensive philosophical training, so an agent in an *ideal society* (where corruption is less prevalent or completely absent) might be able to take the Cynic ‘shortcut’.

4. Physics as therapy

If in ideal circumstances a therapeutic course of physical study might not be deemed necessary, the same cannot of course be said for those of us unfortunate enough not to have exceptional natural abilities, or to have been brought up in an ideal society. In our case, no doubt, we will need all the help we can get. But this brings us back to the question of how, precisely, studying physics is supposed to help us. This, I suggest, again becomes apparent when we think of physics in terms of a *corrective* activity: something we need to counteract the corruption that our reason has undergone in the course of our development. As we shall see, though, types of corruption are numerous – meaning that so, too, are the means of correction.

One way in which physics might prove useful is by directly countering corrupt *beliefs* we may have accumulated, beliefs that might in turn stand in the way of us leading a life in accordance with nature as a whole. The most obvious example of such a belief would be that the cosmos is not, as a matter of fact, ‘good’ – and thus, obviously, not worth us striving to live in accordance with. What is significant, however, is that this belief might arise for a diverse range of reasons. It might come about, for example, because one happens to believe that the cosmos is made up of randomly swerving atoms, and thus is the product of chance.⁴⁴ It might come about because one is an atheist – or believes that the gods are simply not interested in us. Conversely, it might come about because one has developed superstitious beliefs about the gods, and thus believes that, far from being providential, they are actually capricious and vengeful, and frequently impose suffering on human beings. However, because of the variety of beliefs that might cause one to think that nature is not something worth following, it would have been necessary for the Stoics to develop a fairly comprehensive body of physical theory in order to show how each of these beliefs is, after all, mistaken. Against the idea of randomly swerving atoms, the Stoics would have to show that the cosmos is, in fact, a material continuum in which no randomness can exist. They

⁴⁴ A belief that Seneca singles out as particularly problematic at 1 pref. 14-15.

would have to show both that the gods exist, and what they are like: superlatively rational, beneficent beings.⁴⁵ Against those who took dangerous natural phenomena as evidence for the malicious intentions of the gods, it would be necessary that these events have natural, mechanical causes, while also serving some broader role within the overall order of the cosmos.⁴⁶ Overall, any aspect of the Stoics' physical theory could be seen as motivated by the fact that people often hold harmful beliefs to the contrary, beliefs which end up getting in the way of their ethical development.⁴⁷ Again, though – and this is crucial – not everyone will hold all (or indeed *any* – Socrates?) of these harmful beliefs; and, as such, the level of physical study in which one will need to engage might vary significantly.⁴⁸

In this respect, there are considerable parallels between Stoic views on the therapeutic benefits of physical study, and those advocated by the Epicureans. It was precisely (and indeed only) for the purpose of dispelling ethically harmful beliefs about the cosmos that Epicurus recommended the study of physics.⁴⁹ However, it also seems that the Stoics saw physical study as useful beyond this basically 'negative' function (negative in that it serves to *remove* harmful beliefs). In addition to this, the Stoics seem to have accorded physical study a further, more constructive role. Indeed, Cicero makes this explicit in *De finibus* 4:

Much the same can be said about natural science [sc. that the Peripatetic system is more comprehensive than the Stoics']. Both the Peripatetics and the Stoics engage in it, and for more than the two reasons which Epicurus recommended, namely to drive out fear of the gods and religious superstition. A study of the heavens brings in addition a certain sense of moderation when one observes the great order and control that obtains among the gods as well. To look upon the gods' works and their acts creates in us also a loftiness of spirit. And we gain a sense of justice when we understand the will, the design and the purpose of the supreme guide and lord to whose nature philosophers tell us that true reason and the highest law are perfectly matched.

(Cicero *De finibus* 4.11, trans. Woolf)

Cicero suggests that in addition to dispelling harmful beliefs about the cosmos, the study of physics can also invest us with a sense of moderation, a loftiness of spirit, and a sense of justice. What is interesting about these additional benefits, I suggest, is that they do not seem

⁴⁵ Such as we find in Cicero *ND* 2.

⁴⁶ Something that Seneca points out at 6.3.1-4 – more on which below.

⁴⁷ Of course, one might also argue that the Stoics were required to develop the range of physical theory that they did for polemical reasons – i.e. in order to counter arguments from other schools. But this can actually be seen as motivated by the very same consideration: their philosophical rival are serving to *spread* harmful beliefs about the cosmos, and as such the Stoics need to respond with theory to counteract them.

⁴⁸ Indeed, Ierodiakonou (1993), in her analysis of the 'parts' of Stoic philosophy, argues that the varying orders in which Stoics placed these parts (which is seized on by Plutarch as self-contradiction) may in fact be down to pedagogical considerations. If true, this shows that the Stoics did view their curriculum as adaptive – responding to the *needs* of its audience, rather than representing a fixed way of achieving moral progress.

⁴⁹ Epicurus *Ep. Pyth.* = DL 10.85; 10.115-16

to be rooted in knowing the *content* of physical theory, per se. The ‘Epicurean’ function of physical study, by way of contrast, seems very much to rely on the fact of the agent getting to know certain facts about the cosmos (precisely in order to dispel harmful beliefs one already has). Instead, these additional benefits seem to stem from the very *activity* of studying nature. Merely ‘observing’ or ‘looking upon’ (*videant*) the order of the cosmos, Cicero seems to suggest, brings about these senses of moderation, loftiness of spirit, and justice.

Of course, Cicero says that this is the view of both Stoics *and* Peripatetics; but we should bear in mind the dialectical context of this report, since Cicero’s strategy is to show that the Stoics basically plagiarised the Peripatetics. A certain amount of equivocation over the theories of each school is thus to be expected. But, in any case, we find these ideas also showing up in a variety of other contexts, where it seems clearer that Cicero had specifically Stoic views in mind. One important example is a passage from *Tusculan Disputations* 5, which is commonly taken to be heavily influenced by Stoicism.⁵⁰ In this passage, moreover, Cicero goes into far more detail about how the study of nature can bring about these additional benefits:

Haec tractanti animo et noctes et dies cogitanti existit illa a deo Delphis praecepta cognitio, ut ipsa se mens agnoscat coniunctamque cum divina mente se sentiat, ex quo insatiabili gaudio completur... Haec ille intuens atque suspiciens vel potius omnes partes orasque circumspiciens quanta rursus animi tranquillitate humana et ceteriora considerat! Hinc illa cognitio virtutis existit, efflorescunt genera partesque virtutum, invenitur quid sit quod natura spectet extremum in bonis, quid in malis ultimum, quo referenda sint officia, quae degendae aetatis ratio deligenda.

To the soul who investigates these things, reflecting on them night and day, there arises a recognition of that which is prescribed by the god at Delphi: that the mind must know itself, and feel its union with the divine mind. As a result of this it is filled with insatiable joy...As he gazes at this and looks upward – or rather *around* – at all parts and extremities of the universe, with what tranquillity of soul he turns back to reflect upon human matters, and upon the things that are closest to him! From this there arises a recognition of virtue, the genera and species into which the virtues bloom. It is discovered what nature regards as the utmost among goods and the worst among evils, that to which duties must be referred, that which must be chosen as the measure by which life is lived.

(Cicero, *Tusculan Disputations* 5.70-2, my trans.)

Again we see an emphasis not so much on learning facts about the cosmos (although no doubt one would *also* learn about the cosmos in this way) as on the mere act of engaging in this activity. This is again reflected by Cicero’s emphatic use of the language of seeing – *intuens, suspiciens, circumspiciens*. How, though, does this benefit us? As in the passage

⁵⁰ e.g. Forschner (1998); Jeden (2009), 112.

from *De finibus* 4, Cicero says that this activity results in a knowledge of the virtues – this time not only moderation and justice, but the virtues as a whole. Here, however, Cicero is much more informative about this. What, significantly, the agent appears to gain from contemplating the cosmos is *self-knowledge*. In particular, the knowledge of themselves *as* an integrated part of the cosmos – a part, moreover, that has a profound connection with the divine. It appears that the observation of the supreme expression of rationality that we find in the cosmos calls our attention to our own rational natures; and in this juxtaposition we *feel – sentiat* – a profound sense of “union” (*coniunctam*) with the world. This, of course, is an idea we have seen in the *Natural Questions* (which we shall come back to presently). Just like Seneca, then, Cicero seems to be saying that studying physics helps us to realise – or rather to *feel* – that our own end as human beings is bound up with the state of the cosmos more widely.

In a recent study, Reydam-Schils has also noted this link between physical study and the promotion of what she refers to as the “social aspect of virtue”.⁵¹ Again working through the prism of Cicero, Reydam-Schils considers the frequently-cited problem of the apparent *absence* of cosmic nature in Cicero’s ‘first’ account of οἰκείωσις at *De finibus* 3.21ff. Drawing more widely on Cicero’s work, however, she notes a consistent pattern that when the ‘social’ side of virtue becomes relevant, the cosmic context, and the importance of physical study, makes a reappearance. This much, indeed, is also true in *De finibus* 3; it is precisely after the ‘second’ account of οἰκείωσις (so-called ‘social οἰκείωσις’) that we find the Stoic spokesman Cato reaffirming the significance of physics, saying that (in a close echo of Chrysippus)⁵² “the starting point for anyone who is to live in accordance with nature is the universe as a whole and its governance...one cannot make correct judgements about good and evil unless one understands the whole system of nature” (3.73). Cato, moreover, goes on to repeat precisely what was said in the *Tusculan Disputations* – that the study of physics plays a crucial role in our coming to understand *ourselves* within this cosmic context:

Those ancient precepts of the wise that bid us to “respect the right moment”, “follow god”, “know oneself ” and “do nothing to excess” cannot be grasped in their full force without a knowledge of physics. This one science alone can reveal the power of nature to foster justice and preserve friendship and other bonds of affection (*De fin.* 3.73, trans. Woolf).

⁵¹ Reydam-Schils (2016), 105.

⁵² Cf. *Sto. rep.* 1035CD.

Again Cicero quotes the Delphic maxim, and again it is clear that this process of coming to know oneself involves, or rather requires, knowing oneself *as* an agent who operates in the cosmic context. The study of physics helps this process, Cato says here, by helping to *foster* justice and the bonds of affection with other rational agents. If Reydams-Schils is right, and the ‘second’ account of οἰκείωσις in *De finibus* is supposed to ‘fill in’ what is missing from the first account at 3.21ff. (namely, the ‘social’ side of virtue), physical study can be seen as playing a useful role in helping agents to bridge the psychological ‘gap’ that is often seen as existing between the self-regarding impulses with which all agents begin life, and the socially-oriented impulse that becomes increasingly important as one develops into a fully rational being.

*

In a moment we shall turn to consider some of the striking parallels between the foregoing and what we have seen previously in the *Natural Questions*, and the implications of this for Seneca’s originality. First, though, it will be useful to briefly summarise our findings.

To begin with, we have seen that there is a distinction between the role that *cosmic nature* plays in Stoic ethics, and that played by the activity of actually studying nature. The *study* of physics, we have seen, ought to be pursued for two broad reasons: first, because it is something that is simply natural for human beings to do, and thus, as is the case with all ‘natural’ or ‘appropriate’ human activities, will be pursued if circumstances are conducive (sufficient leisure time, for instance). Second, though, we have also seen that physics could be pursued for its therapeutic benefits; but we have also seen that there is more than one way in which the study of physics can prove therapeutically beneficial. This depends, I have suggested, on what sort of defect the agent in question has developed. On the one hand, agents who have developed harmful beliefs about the cosmos (in particular, the belief that the cosmos is not a rationally and providentially organised place to live) will benefit from learning the content of Stoic physical theory – namely, those aspects that serve directly to counteract such beliefs: that it is atomic, or that natural phenomena are the work of malevolent gods, for instance. On the other hand, we have also seen that the study of physics can serve a therapeutic role that was not, per se, dependent on the content of physical theory. While I do not wish to claim that ‘content’ plays *no* part in this (indeed, it would no doubt *lead* to content; and it would be dangerous to engage in this activity if one was prone to

drawing harmful conclusions about the cosmos) it nevertheless seems from Cicero that there was something inherent in the very *activity* of studying nature which serves to promote a sense of ‘connectedness’ with the cosmos.

These two therapeutic functions can perhaps be related to a more general distinction that is sometimes made, especially in scholarship on post-Hellenistic Stoicism, between so-called ‘spiritual exercise’, and what has been called ‘rational discourse’.⁵³ This is sometimes cashed out as a distinction between, on the one hand, actually ‘learning’ philosophical theory and, on the other, performing exercises that help to, as it were, ‘digest’ this theory. However, while it is true that the evidence does sometimes seem to describe different sorts of philosophical activity that might be captured by this distinction,⁵⁴ I hesitate to use the terms because, for one thing, they are not used by the Stoics themselves; but more importantly because such terms seem to create, in my opinion, too stark and artificial a divide between different sorts of philosophical activity. Sellers, for instance, suggests that the activity of the philosophical trainee would be divided quite rigidly along these lines: first doing some nuts-and-bolts learning of theory, and then striving to internalise this through various spiritual exercises. However, this account (aside from generally lacking in evidence) seems to conceptualise philosophical activity as the learning and internalising of *every single aspect of Stoic theory* – logical, ethical and physical. But this, I suggest, misrepresents the overarching frame of Stoic philosophy as, fundamentally, a therapeutic activity. Rather, as we have seen, there is no strict formulaic way in which an agent needs to engage in philosophy. Instead, the agent will engage in whatever activity is necessary for them to counteract their personal faults – be these erroneous beliefs about the cosmos, a failure to develop one’s ‘social’ tendencies to a sufficient degree, or whatever else.

4. *Physics and ethics in the Natural Questions (revisited)*

In the preceding I have largely excluded the *Natural Questions* from the discussion in an attempt to paint as neutral a picture of the earlier Stoa’s position on physical study as possible. However, as will already be apparent, there are considerable overlaps between the two. Overall, this seems to indicate that Seneca is generally working well within existing

⁵³ Sellers (2007); (2009). See also Hadot (1995); (2002) – although Hadot does not distinguish ‘spiritual exercise’ from ‘rational discourse’, but rather considers the *whole* of ancient philosophy as ‘spiritual exercise’. While I think this is too broad a brushstroke, it could perhaps be applied to Stoicism insofar as it draws attention to the therapeutic frame of philosophy, as the Stoics saw it. Overall, though, I feel the term ‘spiritual exercise’ creates a distinction between types of activity for which there is little evidence in the texts.

⁵⁴ Seneca, for instance, talks about the ineffectiveness of mere logical syllogisms unless one also internalises their meaning – *Ep.* 82.19-20. For further (though sometimes questionable) examples of this idea, see Sellers (2007).

Stoic parameters. This is not to say, however, that he is not also innovating significantly in some respects, and we shall come on to look at these in a moment. First, though, let us begin by considering the features of the *Natural Questions* where Seneca does seem to be conforming closely to traditional ideas about the value of physics.

First, it seems reasonable to say that the *Natural Questions* as a whole has a therapeutic aim in mind. For instance, from the very start of the work, and then repeatedly throughout, Seneca makes clear that we ought to study nature because it will *benefit* us.⁵⁵ Broadly, then, the work can be seen to fit the notion of ‘physics as therapy’ (rather than, that is, an engagement in physical study for its own sake).

It also seems clear (particularly if one accepts what I have argued are the goals of the physics in the *Natural Questions*) that the work has much more in common with the second, non-‘Epicurean’ approach to physics as a therapeutic activity – though this is not to say that the work neglects this approach entirely, any more than it neglects the idea of physics as an intrinsically desirable activity for a human being to pursue. Indeed, just as we should resist any stark division between ‘spiritual exercise’ and ‘rational discourse’, so too would it be a mistake to think that a work of Stoic physics must work within just one of these frameworks. Indeed, it is quite clear that at several points in the *Natural Questions* Seneca does take the more ‘Epicurean’ approach. At the beginning of book 6, for example, when Seneca is considering the outstanding fearsomeness of earthquakes, he pauses to point out:

It will also help to realise in advance that the gods are not responsible for any of this, and neither the sky nor the earth is shaken by the anger of divinities: these things have their own causes, and do not run wild to order, but, like our bodies, they are upset by certain defects, and when they seem to be *causing* harm, they are *suffering* it. When we are ignorant of the truth, everything is more terrifying... We never marvel at these things without fear. Since the cause of the fear is ignorance, is it not worth acquiring knowledge in order to remove your fear? (6.3.1-4)

Here, then, Seneca recommends the study of physics for the *quintessential* ‘Epicurean’ motive: showing that frightening natural phenomena have natural causes, rather than being the work of malevolent divinities⁵⁶ (although, it is worth noting that Seneca says that we must realise this fact about the cosmos *in advance* (*praesumere*), which perhaps already implies

⁵⁵ E.g. 3 pref. 18; 4 pref. 20-1.1; 4b.13.2; 1 pref. *passim*. One apparent exception might be in the preface to book 6, in which Seneca says that we study nature merely for the *joy* of doing so (6.4.2). But in the same preface he also says that physics will benefit us by, for example, eradicating fear.

⁵⁶ Cf. 7.1.1-7. Similarly, one purpose of book 2’s extended preface on the ‘unitary’ nature of air/*spiritus* could be to ensure that we do not make the fatal error of thinking of the world as fundamentally atomic (which, crucially, introduces the possibility of chance). Indeed, in the course of this discussion, Seneca spends several paragraphs illustrating why the atomic theory could not possibly be correct (2.6.2-2.7.2).

that this sort of benefit is not the main motivation of the work. Indeed, it could even imply that realising this sort of fact about the cosmos is a *precondition* for being able to benefit from a work like the *Natural Questions*). Furthermore, as we saw in the previous chapter, the sections of the work that I referred to as ‘natural *paradoxa*’ might themselves be designed, if not specifically to counteract harmful beliefs about the cosmos, at least to promote reflection on one’s beliefs about nature. Seemingly, therefore, Seneca is happy to combine the various approaches to physical study available to him from the Stoic tradition.

In general, though, this ‘Epicurean’ approach does not seem to be Seneca’s primary motivation in the work. For one thing, Seneca spends relatively little time positively arguing for the fundamentals of Stoic physics, and certainly does not do so in any systematic way. One of the few major examples is the preface to book 2, which makes a case for the cosmos as a material continuum; but it is perhaps telling that such an exposition only takes place in the very *last* book. Indeed, most of the time, Stoic assumptions about the cosmos – the Stoic elemental theory, the active role of *pneuma/spiritus*, and even the function of divine reason – are, in effect, taken for granted. Again, this need not mean that the ‘content’ of the theories Seneca explores are completely *irrelevant*: it would clearly be counterproductive if the reader came to a *harmful* view of the cosmos by reading the *Natural Questions*. It simply appears that Seneca is not primarily concerned to show *that* the cosmos is of such or such a character – as would be his aim if he did principally have the ‘Epicurean’ goal in mind.

That the *Natural Questions* has much more in common with the second, non-Epicurean approach is, of course, already clear if one accepts the role that I have assigned to the physics in the *Natural Questions* in previous chapters. In point of detail, however, there are also some striking correspondences between what Seneca says about the study of physics and its benefits, and what we saw earlier from Cicero – particularly in the passage from *Tusculan Disputations* 5. It is worth quoting the relevant passages side by side:

Haec tractanti animo et noctes et dies cogitanti existit illa a deo Delphis praecepta cognitio, ut ipsa se mens agnoscat coniunctamque cum divina mente se sentiat, ex quo insatiabili gaudio completur... Haec ille intuens atque suspiciens vel potius omnes partes orasque circumspiciens quanta rursus animi tranquillitate humana et ceteriora considerat!

Cum illa tetigit, alitur, crescit velut vinculis liberatus in originem redit, et hoc habet argumentum divinitatis suae quod illum divina delectant, nec ut alienis sed ut suis interest. Nam secure spectat occasus siderum atque ortus et tam diversas concordantium vias; observat ubi quaeque stella primum terris lumen ostendat, ubi columen eius [summumque cursus] sit, quousque descendat. Curiosus spectator excutit singula et quaerit. Quidni quaerat? Scit illa ad se pertinere.

To the soul who investigates these things, reflecting on them night and day, there arises a recognition of that which is prescribed by the god at Delphi: that the mind must know itself, and perceive its union with the divine mind. As a result of this it is filled with insatiable joy...As he gazes at this and looks upward – or rather *around* – at all parts and extremities of the universe, with what tranquillity of soul he turns back to reflect upon human matters, and upon the things that are closest to him!

(Cicero, *Tusculan Disputations* 5.70-2, my trans.)

When it has reached those regions, it finds nourishment, it grows, and, as though freed from its chains, it returns to its origin. It has this proof of its own divinity, that it takes delight in the divine and enjoys it not as someone else's possession but as its own. For confidently it watches the settings and risings of the stars, and their differing but harmonious paths; it observes where each star first reveals its light to earth, where its zenith [the highest part of its course] is, to what point it descends. As a fascinated spectator, it examines and inquires into each detail. And why should it not inquire? It knows this all relates to itself. (1 pref. 12-13)

As was pointed out earlier, Cicero suggests that the study of nature brings about a kind of self-knowledge – in particular, the knowledge of oneself *as* an integrated part of the cosmos with a close connection to the divine. What Seneca suggests seems strikingly similar. While Cicero talks about a sense of union with the divine mind, Seneca suggests that the activity leads to the realisation of one's divine nature. In both cases, moreover, this realisation leads in turn to a heightened sense of 'connectedness' with the cosmos. Seneca, for his part, speaks of coming to see the cosmos as one's own possession, as relating to oneself. Cicero, meanwhile, speaks first of the agent's transition from looking upwards to looking *around* (going from a sense being 'beneath' to '*among*' the cosmos, as it were), and then goes on to describe the agent's reflection on what is "closest to him" (*citeriora*) – the implication presumably being that such reflection leads to the conclusion that the cosmos itself is 'closer', in an ethical sense, than previously realised.

These theoretical correspondences imply two things. To begin with, they seem to confirm that Seneca was, indeed, drawing on existing Stoic ideas about the value of physical study. In addition, though, the correspondences here also add considerable support to what I have argued is the overall purpose of the aetiology in the *Natural Questions*: to promote a sense of affinity with the cosmos. For in the earlier evidence we find a clear theoretical precedent for this idea.

At the same time, Seneca's *unoriginality* in this respect might also raise concerns about other features of my overall interpretation. One of my central contentions, of course, is that the *Natural Questions* should be read as a response to philosophical pressures exerted by contemporary Platonism; in particular, that Seneca's attempt to foster affinity with the

cosmos is a response to the Platonists' contention that empiricism prevents agents from developing more than a very narrow conception of self-interest.

If, however, the Stoics already *had* a solution to the problem, why, on the one hand, do the Platonists think this will be an effective line of attack? Or why, on the other, does Seneca believe that foregrounding this particular aspect of Stoic theory will prove an effective response, if it was something that the Stoics already had in place?

Part of the answer, I think, stems from the fact that the Stoics themselves had identified the issues surrounding man's 'social' tendencies as a weak point in their theory.⁵⁷ This much is indicated by the very fact that we find Stoics, both early and late, describing strategies to address the issue. Indeed, we have seen several of these strategies. Aside from the 'approach through physics', we have also seen the attempt of the Stoic Hierocles to promote sociability through his exercise involving circles. In addition, the very process of *oikeiosis* that we find elaborated in Stoic texts has sometimes been interpreted as an attempt to address the issue. Striker, for instance, argues that the description of the process of *oikeiosis* is actually just an attempt to construct a "psychologically plausible" account of how any agent could come to regard 'agreement with nature' as the only good (while the *argument* for this being the end, Striker maintains, takes a different form).⁵⁸ But even if one does not subscribe to this interpretation, there are other features of the *oikeiosis* account that could be taken to indicate Stoic disquiet in this area. In particular, the mere fact that *oikeiosis* is harnessed to perform the double function of explaining initial motivation *and then* social tendencies – two functions that are notoriously difficult to reconcile⁵⁹ – in itself could be taken to betray the Stoics' awareness of a gap between these two sorts of motivation, one that needed to be addressed.⁶⁰

If this is right, then the Platonists would have had a strong motive to pick away at this area of Stoic theory regardless – or rather, precisely because of – the various strategies they had developed to address the problem. For, they will have noted, the Stoics *themselves* were evidently concerned about the issue, and the sheer variety of strategies they developed to

⁵⁷ Inwood (1984, esp. 179ff.) calls attention to this issue as a perennial problem for the Stoics – one that he believes they never managed adequately to address.

⁵⁸ Striker (1989).

⁵⁹ For an excellent summary of the approaches scholars have taken, see Klein (2016).

⁶⁰ Contra Reydam-Schils (2002); (2005a, ch. 2), who suggests that the Stoic social impulse exists even in childhood. For me, the existence of these strategies to mitigate the problem counts against this.

address it merely betrays a long-running disagreement and a lack of clarity about how best to solve it.⁶¹

This, however, does not immediately answer the question of why Seneca thought foregrounding one of these existing strategies – the approach through physics – would prove an effective response. If the Platonists could point to Stoic disagreement as evidence of the failure of these strategies, merely rehashing any of these approaches would be unlikely to make significant headway. This, though, is precisely where Seneca’s innovations in the *Natural Questions* become central. For the fact is that Seneca does *not* merely rehash existing Stoic ideas. Certainly, as we have seen, he makes use of existing strategies; but he also, and crucially, *adapts* these ideas for the specific opponents with whom he is dealing. In particular, he combines the Stoic ‘approach through physics’ with the Platonist methodology of abstraction. It is exactly this, however, that gives his approach teeth against the Platonists; for in doing so he rephrases the argument in terms that *the Platonists themselves ought to accept*. It is *they* who suggest that a carefully structured engagement with nature can bring about a separation of mind and body, and thus they who provide a potential route out of the problem. By recasting the ‘approach through physics’ in this way, Seneca adapts an existing Stoic argument to respond effectively to the contemporary philosophical context.

⁶¹Indeed we *know* that the Platonists were keen to exploit these sorts of disagreements. As we saw in chapter 2, the disagreements among rival schools was one of the key justifications for reverting to the authority of Plato. What is more, it seems that Platonists regarded the Stoic school as being particularly fractious, even within its own ranks, and they did indeed take this to indicate the weakness of their theoretical framework. We see this clearly in the following from Numenius: “[Unlike the Epicureans, t]here have been factions among the Stoics which started with their founders *and continue today*. They take pleasure in malicious refutation. Some of them maintain their original positions, others have shifted. Their founders were like oligarchs, *whose divisions furnished their successors with plenty of reasons for criticising them*” (from his book *On the Dissension of the Academics from Plato*, ap. Eusebius, *Preparation for the Gospel* 14.5.1-6.14, trans. Boys-Stones, my emphases).

1. Summary

In Chapter 1 I considered the unusual form of the *Natural Questions*. Having rejected the approach of scholars who essentially deny there is any discontinuity between the aetiology and the moralising passages (on the basis that these interpretations sometimes rest on rather subjective evidence) I moved to consider a number of factors that might have motivated Seneca to write the work in this ‘compartmentalised’ way. I began by looking at writing conventions that might have influenced him – first, those of the Stoic tradition of physical writing, and subsequently the conventions of contemporary literary output. We saw that, while there is precedent for the combination of ethics and physics in the Stoic tradition, Seneca does seem unusual for combining these particular sorts of ethical themes with physical discourse. As for literary convention, although there are some partial parallels to Seneca’s approach in the wider literary tradition, these do not, I contended, really *explain* what Seneca might be trying to achieve with this text – especially considering the philosophical frame of the work. Consequently, I then looked at a number of philosophical approaches to the text. I argued that approaches that try to explain the form of the work on the basis of the close relationship between Stoic ethics and physics are limited because, again, this does not explain why Seneca focuses on these rather surprising ethical themes. Finally, then, I considered the view that the form of the work is influenced by Seneca’s engagement with Platonism. While I rejected the idea that he has a conciliatory attitude towards Platonism, I suggested that the influence of Platonism may yet prove decisive, considering the high concentration of Platonic allusions at key points in the *Natural Questions*.

In Chapter 2, then, I set about considering the nature of the debate with Platonism around the time Seneca was writing. In particular, I focussed on a key issue in ethical epistemology: how to form a well-grounded concept of ‘the good’. The Stoics, I argued, may have been able to stave off Platonist concerns about not being able to derive a robust concept of ‘goodness’ through empirical means alone by, for instance, identifying the good with the total wellbeing of the cosmos. But this solution brought problems of its own – problems that seem to have been picked up by the anonymous commentator on the *Theaetetus*. Anon., I suggested, argues that the Stoic attempt through οἰκείωσις to get the entire community of rational beings within the agent’s ethical frame of reference fails, since empiricist agents are necessarily restricted to a partial view of the world – that of the body. No empiricist agent, then, could ever achieve the impartiality required by the Stoic position. I then argued that Seneca seems to be aware of

this debate. His 120th Letter not only discusses the problems associated with acquiring the concept of the good but, moreover, even draws attention to our over-attachment to our bodies as a serious sticking-point for the theory. More significantly, various statements within the *Natural Questions* itself seem to speak directly to the problem: the repeated claims that studying nature can separate mind from body or bring about an ‘escape from oneself’, and that it can even foster a sense of affinity with the cosmos – goals, moreover, that are phrased in strikingly Platonic terms.

Chapter 3 considered whether and how these goals are being achieved in the *Natural Questions*. Looking at the aetiological portions of the work, I argued that each book appears to be structured in a relatively uniform way. Seneca moves from naive material, mechanical, and often visible causes, through ever-more profound accounts of causation that are increasingly inaccessible to the senses. This process consistently culminates with some reflection on the role of the divine – the most profound and imperceptible cause of all. This ‘methodology of abstraction’, I argued, closely parallels one that the Platonists employ, designed, indeed, to lead the mind away from the distractions of the senses and the body, in preparation for cognition of the Forms. While Seneca manifestly does not regard the apprehension of the Forms as the end-point of this process, he can nevertheless exploit this methodology to bring about a certain distancing of the mind from the body. The intention behind this approach, I suggested, is that it will at once draw our attention to our own fundamentally rational natures, and, by exposing us to the supreme rationality found in nature at precisely this point, will serve to promote a sense of affinity with the cosmos. Seneca, then, uses a methodology recommended by the Platonists themselves to overcome the problem they level at Stoicism.

In Chapter 4 I returned to consider the moralising passages. I began by distinguishing those which ought properly speaking to be considered ‘moralising passages’, doing so on the basis of a number of shared characteristics. Aside from having, at best, a very tenuous connection with their surrounding aetiology, and often being introduced abruptly with awkward transitional devices, all of them contain vivid depictions of moral vice. What unites this ostensibly disparate collection of vices, I argued, is the fact that each of them can be read as instances in which agents have misarticulated the good, having come to regard things such as pleasure, wealth, political power or mere bodily survival as genuine *goods*. Having noted the significance of Seneca’s emphasis on these agents’ over-reliance on sense-perception (which seems to reflect the Platonist critique of empiricism), I then argued that these passages can, in fact, be seen to complement the role of the aetiology by orienting us away from these

erroneous goods. This function is again informed by the structure of the work – in particular, the careful placement of these passages at points when the highest level of causal analysis has been reached. The idea, I argued, is that by abruptly confronting us with these vivid and repulsive instances of vice at points in the aetiology at which we are most ‘separated’ from our bodies – most aware, that is, of our true rational natures and our relationship with the divine – Seneca hopes to jar us into critical reflection on the value of such objects. Thus, while the aetiology serves to foster a stronger relationship with the cosmos, the moralising passages serve to sever our existing attachments to false goods.

Having looked at the *Natural Questions* in its contemporary philosophical context, Chapter 5 turned to consider the work in relation to earlier Stoic thought about the value of physical study. I began by considering the contentious issue of the relationship between physics and ethics in Stoicism. I sided against the likes of Julia Annas in thinking that physics (or rather, ‘cosmic nature’) plays a grounding role for Stoic ethics. At the same time, I argued that this debate has largely neglected the question of what we, as agents, are supposed to get out of studying physics. I then considered the paradox of the fact that, despite the Stoics’ apparent interest in physics, a variety of evidence seems to suggest that one could become a sage without ever studying nature. The paradox dissolves, I argued, when we consider the fundamentally *therapeutic* frame of Stoic philosophy. Considered in this light, it became apparent that the extent to which one might engage in the study of physics depends on one’s particular therapeutic needs. As it turned out, though, the study of nature can provide more than one therapeutic benefit. On the one hand, it can focus on the *content* of physical theory, serving to counteract one’s harmful beliefs about the cosmos that might stand in the way of one’s ethical progress. On the other, and much more in line with what we find in Seneca, it also seems that engaging in the study of nature can serve to enhance one’s ‘social’ tendencies. Considering this, it seems highly likely that in the *Natural Questions* Seneca was drawing on existing Stoic ideas about the value of physical study. However, by combining these ideas with the Platonist ‘methodology of abstraction’, Seneca adapts them to respond effectively to a pressing contemporary philosophical problem.

2. Seneca’s innovative conservatism

In the Introduction I spoke quite strongly against what I think are some of the prevailing misconceptions about post-Hellenistic Stoicism. In particular, the idea of Stoicism in this period being concerned solely with ‘practical ethics’; that they were unthinking ‘eclectics’; and that Stoic innovation in this period was restricted to the form of works, rather than

theory. There is a certain irony in the fact, therefore, that I have argued (a) that *Natural Questions* has an ethical goal in mind (b) that Seneca appropriates a Platonist methodology, and (c) that Seneca draws heavily on existing Stoic theory, though innovates in the way he structures the work! What distinguishes my account, however, is that in each case I think Seneca is motivated by sophisticated and theoretically grounded philosophical considerations – something of which he is often deprived on more traditional readings. Let us take these in sequence.

Two relevant points spring to mind concerning the ethical thrust I have attributed to the *Natural Questions* vis-à-vis the narrative of ‘practical ethics’. First, there is a tendency among some (though not all) who subscribe to this narrative to conceive of it as a new focus on ethics *at the expense* of the theoretical considerations underlying ethics. Taking the theoretical underpinnings of Stoic ethics as a given, it is maintained, Stoics of this period write works that merely aim to help their readers (and themselves) to make progress towards these ideals in their everyday lives – through spiritual exercises, critical self-reflection, and the like. This *might* conceivably be the case with someone such as Marcus Aurelius – though he is, of course, an extremely unusual example; and some would dispute this even in his case. As I hope to have shown, though, the same certainly cannot be said of Seneca and the *Natural Questions*. To begin with, the ethical end that Seneca hopes to achieve is solidly grounded in Stoic theory – principally, the Stoic theory of οἰκείωσις, and Stoic thought about the benefits that can be derived from physical study. What is more, though – if I am right about the anti-Platonist dimension to the work – the *Natural Questions* is engaging in a technical theoretical debate with the Platonists over the ability of Stoicism to justify its account of the highest good. While Seneca undoubtedly hoped that there would be practical ethical payoff from reading his work, this takes nothing away from the sophisticated level of theoretical engagement that lies behind his approach to bringing this about.

The second thing to say about the ethical drive of the work is that, as we saw in Chapter 5, Seneca is by no means novel in thinking that the study of physics can and should serve an ethical purpose. Indeed, as we saw, the very ethical goal that Seneca attributes to the study of physics coheres closely with earlier Stoic thought on the matter. This, in fact, should go further towards highlighting the mistake of distinguishing too sharply between early and late Stoicism: Stoics of both periods, this shows, had both theoretical *and* practical concerns in mind.

What, then, of Seneca’s appropriation of elements of Platonist theory – does this make him an eclectic, after all? The short answer is, of course, no. If we take eclecticism to mean

an unthinking adoption of rival theories that do not cohere philosophically with the recipient's system, then Seneca cannot be described as an eclectic. Rather, as I hope to have shown, Seneca's appropriation of the Platonist-inspired 'methodology of abstraction' is motivated by very specific philosophical considerations. It serves to solve a problem that already existed within Stoicism: how to get from a narrow (and in some sense natural) form of self-interest, focussed on the body, to one that pays significantly less attention to the body. Even this, however, underplays the level of philosophical acuity that Seneca displays here. For, as we have also seen, it is the very fact that Seneca uses the Platonists' own theory against them that gives the *Natural Questions* teeth as a polemical work.

However, even if we can reject this naive sort of eclecticism, does not the *Natural Questions*, on my reading, nevertheless display a certain openness to Platonism? Indeed, although it has been my contention throughout that Seneca's engagement with Platonism in this work should be seen in an adversarial light, some might well wonder whether my reading actually has more in common with the conciliatory reading of Seneca vis-à-vis Platonism than I have thus far acknowledged. After all, Seneca's response to the Platonist attack is not to mount an all-out offensive of his own. On the contrary, Seneca responds by *incorporating* one of the Platonists' own theories within his system. To some this might look less like hostility, and more like what has been called a "pooling of philosophical resources" between the schools.¹ Rather than rejecting Platonism outright, it could be argued, Seneca instead looks openly to Platonism in search of answers; and, on inspection, he finds the ground fertile.

However, I believe this reading should on the whole be resisted, based on the following considerations. First, we must reflect on the nature of the Platonist project in this period. As we have seen, the central and defining claim of Platonism is that we must accept the existence of transcendent first principles: the Forms. Unless we do so, Platonists claim, we might as well give up on philosophical dogmatism; and it is precisely the desire to show this that motivates much of the anti-Stoic, anti-empiricist polemic we have seen from the Platonists in previous chapters.

What is crucial to note, then, is that on this central matter Seneca makes absolutely no concessions to the Platonists. Indeed, far from working with the Platonists in their project, Seneca's appropriation of the methodology of abstraction is harnessed to defend the *Stoic* account of the good – an account that is entirely at odds with the central Platonist claim, and

¹ Sedley (2003), 22.

one which the Platonists explicitly attack. Seneca, moreover, shows that the methodology can be harnessed usefully *without* adopting any of the metaphysical apparatus that the Platonists attach to it. If this is a pooling of philosophical resources, then these resources are nevertheless being used for diametrically opposing ends. Rather than working as allies on a common philosophical mission, Seneca's move seems more akin to an army stealing armaments from the enemy camp to fortify its own defences.

Nevertheless, it cannot be denied that Seneca's engagement with the Platonists in the *Natural Questions* completely lacks the ferocity that we find in the out-and-out polemics coming from the rival side. Even if, as I pointed out in the Introduction, the Stoics' alleged dialectical silence in this period has been somewhat overblown (Seneca's 65th Letter being the most overt, though not the only, example), there is no getting away from the fact that the Stoics do not appear to try to match their rivals like for like in these hostilities.

Does this, then, represent an attitude of resignation, or acquiescence, on the part of the Stoics? Again, I think the answer is no. The key to understanding the Stoics' attitude in this period, as opposed to that of the Platonists', comes from considering the relative positions of the schools coming into the post-Hellenistic period. As has been noted before, the Stoics came out of the preceding period as the dominant philosophical force. By comparison, Platonism was the new kid on the block. The task facing each side, therefore, was completely different in nature. For their part, it was essential that the Platonists made a name for themselves, carved out a philosophical identity on a philosophical playing field that was already dominated by big players. This, it has been suggested, is precisely why we find many Platonists displaying such a penchant for polemicising in this period.² On the Stoic side, however, such tactics were simply not necessary.³ Already occupying the dominant position, the task facing the Stoics was more a *defensive* operation: the shutting down of specific threats when and where they arose. To mount an all-out offensive against this upstart movement may have seemed, at least at the outset, an overreaction.

It is under the rubric of defence that we can, I think, understand the dialectical character of Seneca's engagement with Platonism in the *Natural Questions*. Seneca's strategy, unlike what we frequently find in Platonist polemic, is not to undermine the Platonism system entirely. Such a project is outside the remit of what Seneca needs to do. All that he *needs* to do is to show that the existing Stoic theoretical framework is up to the job; and this is

² Bonazzi (2016), 166-7.

³ Indeed, they may not even have been *desirable*: Boys-Stones (2009) suggests that for the Stoics to engage in such polemics could have been seen as a tacit acknowledgement of the legitimacy of the Platonist position.

basically what he does. As we have seen, despite importing the Platonist methodology of abstraction, the function that Seneca ascribes to physical study, the role it can play in promoting affinity towards the cosmos, is fundamentally in line with Hellenistic Stoic theory. The fact that Seneca builds on this by importing the Platonists' own methodology seems, to me, to be only an ingenious sting in the tail; for it shows that the Stoic account can not only be made to work, but can be made to work along methodological lines that the Platonists themselves should accept.

The defensive nature of Seneca's engagement with Platonism, however, brings us to our third point. For, if Seneca's strategy is indeed basically defensive – to hold ground that was gained during the Hellenistic period – this would seem to commit him more to theoretical conservatism than it would to significant theoretical innovation. Indeed, as we have seen, Seneca does ultimately adhere quite closely to Hellenistic Stoic thought on the role of physical study. So does this justify the idea that the innovations of later Stoics like Seneca are mainly in terms of the form of exposition, rather than underlying theory? Here the answer is a more qualified no. It would be wrong, for instance, to think of Seneca's structuring of the work as *just* a formal innovation. The structure is at once theoretically grounded, and, more importantly, motivated by the changing theoretical challenges facing Stoicism in this period. Nevertheless, it cannot be denied that Seneca does not engage in any serious theoretical revisions of Hellenistic Stoicism. For all his self-professed independence from his school, Seneca's views in the *Natural Questions* – at least when it comes to the relationship between ethics and physics – seem fairly 'orthodox'. While he is keen to point out where he *does* disagree – the celestial rather than atmospheric nature of comets being one prominent example – such disagreements are hardly mould-breaking in the grander scheme of Stoicism.

However, it could be that theoretical conservatism turns out to be a virtue of the work – at least when read as a response to the Platonists. For if the Platonists wanted to show that there was something terribly wrong at the heart of Stoicism, significant theoretical innovation on the part of the Stoics could have been taken as an embarrassing concession. In such a situation, an appealing strategy might have been to resist thoroughgoing theoretical innovation as far as possible. While I would hesitate to offer this as an argument for Seneca's theoretical conservatism more generally (which is, in any case, debatable), in the context of the present debate, at least, a conservative approach might have seemed particularly attractive. Two considerations inform this. The first is down to the matter at stake in this debate: the Stoic theory of the *good*. This theory, of course, stands at the core of the Stoics' ethical project; but this means that it is here, least of all, that the Stoics would have wanted to

be seen undertaking significant theoretical revision. The second consideration stems from what was argued at the end of Chapter 5: that the problem of ‘egoism’ seems to have been a perennial problem for the Stoics, even before the Platonists came onto the scene. This, I argued, is suggested by the various approaches that the Stoics developed to address the problem – the two-stage theory of οἰκειώσις, the approach through physics, and the exercise proposed by Hierocles. In such a situation, with various approaches already available, adding yet another might simply have done further damage to the Stoics’ credibility over this issue. While, of course, highly speculative, such a narrative would add a further level of sophistication to Seneca’s response. Rather than undertaking any fundamental theoretical revisions, Seneca shows that the Platonist critique can be shrugged off with the merest of tweaks to Stoic theory – or rather, just to the *implementation* of that theory.

Of course, such a strategy was unlikely to prove sustainable in the long run. Indeed, the ultimate demise of Stoicism across this period bears testament to the fact that the Stoics were not, in the end, able to adapt quickly enough to stem the tide of Platonism. As I hope to have shown, however, this was not for want of trying. Seneca, for one, seems whole-heartedly engaged in the defence of his system. One hopes that further research will confirm that he was not alone in this effort.

– *Bibliography* –

Ademollo, F. (2012), ‘The Platonic Origins of Stoic Theology’, *Oxford Studies in Ancient Philosophy* 43, 217-43.

Alberti, A. (1995), ‘The Epicurean theory of law and justice’, in A. Laks and M. Schofield (eds.), *Justice And Generosity. Studies in Hellenistic Social and Political Philosophy Proceedings of The Sixth Symposium Hellenisticum*, Cambridge: Cambridge University Press, 161-90.

Algra, K. (2009), ‘Stoics on Souls and Demons: Reconstructing Stoic Demonology’, in D. Frede and B. Reis (eds.), *Body and Soul in Ancient Philosophy*, Berlin/New York: de Gruyter, 359-388.

Algra, K. (2003), ‘Zeno of Citium and Stoic Cosmology’, *Elenchos* 24.1, 9-32.

Althoff, J. (1997), ‘Vom Schicksal einer Metapher: Die Erde als Organismus in Senecas *Naturales Quaestiones*’, K. Döring, B. Herzhoff, and G. Wöhrle (eds.), *Antike Naturwissenschaft und ihre Rezeption* 7, 95-110.

Annas, J. (1993), *The Morality of Happiness*, New York/Oxford: Oxford University Press.

Annas, J. (1995), ‘Reply to Cooper’, *Philosophy and Phenomenological Research* 55.3, 599-610.

Annas, J. (2007), ‘Ethics in Stoic Philosophy’, *Phronesis* 52.1, 58-87.

Annas, J. and Woolf, R. (2001) (eds.), *Cicero. On Moral Ends*, Cambridge: Cambridge University Press.

Armisen-Marchetti, M. (1989), *Sapientiae facies: Étude sur les images de Sénèque*, Paris: Les Belles Lettres.

Armisen-Marchetti, M. (2006), ‘Les stoïciens ont-ils cru au déluge universel?’, *Pallas* 72, 323-338.

Armisen-Marchetti, M. (2015), ‘Seneca’s images and metaphors’, in S. Bartsch and A. Schiesaro (eds.), *The Cambridge Companion to Seneca*, Cambridge: Cambridge University Press, 150-60.

Arnold, E. V. (1911), *Roman Stoicism*, Cambridge: Cambridge University Press.

Asmis, E. (2009), ‘Epicurean Empiricism’, in J. Warren (ed.), *The Cambridge Companion to Epicureanism*, Cambridge: Cambridge University Press, 84-104.

Asmis, E. (2015), ‘Seneca’s Originality’, in S. Bartsch and A. Schiesaro (eds.), *The Cambridge Companion to Seneca*, Cambridge: Cambridge University Press, 224-238.

Asmis, E. (1982), ‘Lucretius’ Venus and Stoic Zeus’, *Hermes* 110.4, 458-470.

- Baltzly, D. (2003), 'Stoic Pantheism', *Sophia* 42.2, 3-33.
- Barnes, J. (1997), *Logic and the Imperial Stoa*, Leiden/New York/Köln: Brill.
- Bartsch, S. (2000), 'The Philosopher as Narcissus: Vision, Sexuality and Self-Knowledge in Classical Antiquity', in R. S. Nelson (ed.), *Visuality Before and Beyond the Renaissance: Seeing as Others Saw*, Cambridge: Cambridge University Press, 70-97.
- Bartsch, S. (2009), 'Senecan metaphor and Stoic self-instruction, in id. and D. Wray (eds.), *Seneca and the self*, Cambridge and New York: Cambridge University Press, 188-217.
- Bartsch, S. (2015), 'Senecan Selves', in id. and A. Schiesaro (eds.), *The Cambridge Companion to Seneca*, Cambridge: Cambridge University Press, 187-198.
- Bartsch, S. (forthcoming), 'Roman Rhetoric and Stoic Philosophy', in M. MacDonald (ed.), *Oxford Handbook of Rhetorical Studies*, Oxford: Oxford University Press.
- Bartsch, S. and Wray D. (2009), 'Introduction', in id. (eds), *Seneca and the Self*, Cambridge/New York: Cambridge University Press, 3-19.
- Bastianini, G. and Sedley, D. N. (1995) (eds.), 'Commentarium in Platonis "Theaetetus"', *Corpus dei papiri filosofici greci e latini* 3, 227-562.
- Bénatouïl, T. (2005), 'Force, fermeté, froid: la dimension physique de la vertu stoïcienne', in *Philosophie Antique* 5, 5-30.
- Bénatouïl, T. (2009), 'How Industrious can Zeus be? The Extent and Objects of Divine Agency in Stoicism', in R. Salles (ed.) *God and Cosmos in Stoicism*, Oxford: Oxford University Press, 23-45.
- Bénatouïl, T. (2013), 'Theoria and Schole in Epictetus and Marcus Aurelius: Platonic, Stoic or Socratic', in A. G. Long (ed.), *Plato and the Stoics*, Cambridge/New York: Cambridge University Press, 147-173.
- Bénatouïl, T. (2014), 'The Stoic System: Ethics and Nature', in F. Sheffield and J. Warren (eds.), *The Routledge Companion to Ancient Philosophy*, New York, London: Routledge, 423-427.
- Bénatouïl, T. and Bonazzi, M. (2012), 'Theoria and bios theoretikos. From Presocratic to the end of antiquity. An overview', in id. (eds.), *Theoria, Praxis and the Contemplative Life after Plato and Aristotle*, Leiden/Boston: Brill, 1-14.
- Berno, F. R. (2003), *Lo specchio, il vizio e la virtù. Studio sulle Naturales Quaestiones di Seneca, Testi e manuali per l'insegnamento universitario del Latino* 79, Bologna: Pàtron Editore.
- Berno, F. R. (2012), 'Non Solo Acqua. Elementi Per Un Diluvio Universale Nel Terzo Libro Delle Naturales Quaestiones', in M. Beretta, F. Citti and L. Pasetti (eds.), *Seneca e le scienze naturali*, Florence: Leo Olschki, 49-68.

Berno, F. R. (2015), 'Exploring appearance: Seneca's Scientific Works', in S. Bartsch and A. Schiesaro (eds.), *The Cambridge Companion to Seneca*, Cambridge: Cambridge University Press, 82-92.

Betegh, G. (2003), 'Cosmological Ethics in the *Timaeus* and Early Stoicism', *Oxford Studies in Ancient Philosophy* 24, 273-302.

Bett, R. (2010), 'Beauty and its relation to goodness in Stoicism', in A. Nightingale and D. Sedley (eds.), *Ancient Models of Mind: Studies in Human and Divine Rationality*, Cambridge: Cambridge University Press, 130-152.

Blair, A. (1999), 'The *problemata* as a natural philosophical genre', in A. Grafton and N. Siraisi (eds.), *Natural Particulars: nature and the disciplines in Renaissance Europe*, Cambridge, MA: MIT Press, 171-204.

Blumenberg, H. (1985), *The Legitimacy of the Modern Age*, Cambridge, MA: MIT Press.

Bobzein, S. (1998), *Determinism and Freedom in Stoic Philosophy*, Oxford: Oxford University Press.

Boechat, E. (2011), *Manilius and Posidonius' Worldview*, diss., Royal Holloway, University of London.

Boeri, M. (2009), 'Does cosmic nature matter?: Some reflections on the cosmological aspects of stoic ethics', in R. Salles (ed.), *God and Cosmos in Stoicism*, Oxford: Oxford University Press, 173-199.

Bonazzi, M. (2007), 'Eudorus' Psychology and Stoic Ethics', in id. and C. Helmig (eds.), *Platonic Stoicism, Stoic Platonism: The Dialogue Between Platonism and Stoicism in Antiquity*, Leuven: Leuven University Press, 109-132.

Bonazzi, M. (2008), 'The Commentary As Polemical Tool: The Anonymous Commentator On The *Theaetetus* Against The Stoics', *Laval théologique et philosophique* 64, 597-605.

Bonazzi, M. (2014), 'Middle Platonism', in F. Sheffield and J. Warren (eds.), *The Routledge Companion to Ancient Philosophy*, 554-567.

Bonazzi, M. (2016), 'The Perfidious Strategy; or, the Platonists against Stoicism', in S. Weisser and N. Thaler (eds.), *Strategies of Polemics in Greek and Roman Philosophy*, Leiden/Boston: Brill.

Bonazzi, M. (*unpublished*), 'The End of the Academy'.

Bowen, A. C. and Todd, R. B. (2004), *Cleomedes' Lectures on Astronomy: A Translation of The Heavens with an Introduction and Commentary*. Berkeley: University of California Press.

Boys-Stones, G. R. (1996), 'The ἐπελευστική δύναμις in Aristo's Psychology of Action', *Phronesis* 41.1, 75-94.

Boys-Stones, G. R. (1997), 'Plutarch on the probable principles of cold: epistemology and the *De primo Frigido*', *Classical Quarterly* 47.1 , 227-238.

Boys-Stones, G. R. (2001), *Post-Hellenistic Philosophy. A study of its development from the Stoics to Origen*, Oxford: Oxford University Press.

Boys-Stones, G. R. (2003), 'The Stoics' Two Types of Allegory', in id. (ed.), *Metaphor, Allegory, and the Classical Tradition: Ancient Thought and Modern Revisions*, Oxford: Oxford University Press, 189-216.

Boys-Stones, G. R. (2005), 'Alcinous, Didaskalikos 4: In Defence of Dogmatism', in M. Bonazzi and V. Celluprica (eds.), *L'eredità platonica. Studi sul platonismo da Arcesilao a Proclo*, Naples: Bibliopoli, 203-234.

Boys-Stones, G. R. (2006), 'Paradoxes', in G. Shipley et al. (eds.), *The Cambridge Dictionary of Classical Civilization*, Cambridge: Cambridge University Press, 645.

Boys-Stones, G. R. (2007a), 'Physiognomy and Ancient Psychological theory', in S. Swain et al. (eds.), *Seeing the Face, Seeing the Soul: Polemon's Physiognomy from Classical Antiquity to Medieval Islam*, Oxford: Oxford University Press, 19-124.

Boys-Stones, G. R. (2007b), 'Fallere Sollers. The Ethical Pedagogy of the Stoic Cornutus', in R. Sorabji and R. Shaples (eds.), *Greek And Roman Philosophy 100 BC-200 AD, Bulletin of the Institute of Classical Studies* 50, Supplement 94, vol. 1, 77-88.

Boys-Stones, G. R. (2009), 'Cornutus und sein philosophisches Umfeld: Der Antiplatonismus der Epidrome', in H.-G. Nesselrath (ed.), *Cornutus: Die griechischen Götter. Ein Überblick über Namen, Bilder und Deutungen*, Tübingen: Mohr Siebeck, 141-61.

Boys-Stones, G. R. (2012), 'Antiochus' Metaphysics', in D. N. Sedley (ed.), *The Philosophy of Antiochus*, Cambridge: Cambridge University Press, 220-236.

Boys-Stones, G. R. (2013), 'Seneca Against Plato: Letters 58 and 65', in A. G. Long (ed.), *Plato and the Stoics*, Cambridge/New York: Cambridge University Press, 128-146.

Boys-Stones, G. R. (2014), 'Unity and the good: Platonists against οἰκείωσις', in B. Collette-Dučić, B and S. Delcomminette, *Unité et Origine des Vertus dans la Philosophie Ancienne*, Brussels: OUSIA, 297-320.

Boys-Stones, G. R. (2017), 'Are We Nearly There Yet? Eudorus on Aristotle's Categories', in T. Engberg-Pedersen (ed.), *From Stoicism to Platonism: The Development of Philosophy, 100 BCE-100 CE*, Cambridge: Cambridge University Press, 67-79.

Boys-Stones, G. R. (forthcoming) (ed.), *L. Annaeus Cornutus: Greek Theology*.

Boys-Stones, G. R. (forthcoming), *Middle Platonist Philosophy 80 BC to AD 250: A study and collection of sources in translation*.

Boys-Stones, G. R. (unpublished), 'How does the Stoic God think?'

Boys-Stones, G. R. (unpublished) (ed.), (anon.) *Commentary on the Theaetetus*.

Bravo Díaz, J.-R. (1991), 'Spiritus: Estudio de un término científico (*Naturales Quaestiones* de Séneca)', in A. Ramos Guerreira (ed.), *Mnemosynum C. Codoñer a discipulis oblatum*, Salamanca, 15–28.

Bravo Díaz, J.-R. (1995), 'Aer, Aether, Caelum, Sublimis: Estudio del vocabulario técnico utilizado para designar el «cielo» en las *Naturales Quaestiones* de Séneca y otros escritores científicos', in *Voces* 6, 9-39.

Bravo Díaz, J.-R. (2013) (ed.), *Séneca. Cuestiones Naturales*, Madrid: Editorial Gredos.

Brennan, T. (2005), *The Stoic Life*, Oxford: Clarendon Press.

Brennan, T. (2009), 'Stoic Souls in Stoic Corpses', in D. Frede and B. Reis (eds.), *Body and Soul in Ancient Philosophy*, Berlin/New York: de Gruyter, 389-408.

Brittain, C. (2001), 'Rationality, Rules and Rights', *Apeiron* 34.3, 247-67.

Brittain, C. (2002), 'Non-rational perception in the Stoics and Augustine', *Oxford Studies in Ancient Philosophy* 22, 253-308.

Brittain, C. (2005), 'Common sense: concepts, definition and meaning in and out of the Stoa', in D. Frede and B. Inwood (eds.), *Language and learning: Philosophy of Language in the Hellenistic Age, Proceedings of the Ninth Symposium Hellenisticum*, Cambridge: Cambridge University Press, 164-209.

Brittain, C. (2006) (ed.), *Cicero. On Academic Scepticism*, Indianapolis, Cambridge: Hackett Publishing Company.

Brittain, C. (2017), 'Peripatetic appropriations of *oikeiōsis*: Alexander, Mantissa, chapter 17', in T. Engberg-Pedersen (ed.), *From Stoicism to Platonism: The Development of Philosophy, 100 BCE-100 CE*, Cambridge: Cambridge University Press, 322-347.

Brunschwig, J. (1991), 'On a Book-Title by Chrysippus: "On the Fact That the Ancients Admitted Dialectic along with Demonstrations"', *Oxford Studies in Ancient Philosophy*, Supplementary Volume, 81-96.

Brunschwig, J. (1994), 'The Stoic theory of the supreme genus and Platonic ontology', in id., *Papers in Hellenistic Philosophy*, Cambridge: Cambridge University Press, 92-157.

Brunschwig, J. (2003), 'Stoic Metaphysics', in B. Inwood (ed.), *The Cambridge Companion to the Stoics*, Cambridge: Cambridge University Press, 206-232.

Brunt, P. A. (1975), 'Stoicism and the Principate', *Papers of the British School at Rome* 43, 7-35.

Brunt, P. A. (2013), 'High-Ranking Stoics under the Principate', in M. Griffin and A. Samuels (eds.), *Studies in Stoicism*, Oxford: Oxford University Press, 310-330.

Bryan, J. (2013), 'Neronian Philosophy', in E. Buckley and M. T. Dinter (eds.), *A Companion to the Neronian Age*, Oxford: Blackwell, 134-48.

Cambiano, G. (1999), 'Philosophy, science and medicine', in K. Algra et al. (eds.), *The Cambridge History of Hellenistic Philosophy*, Cambridge: Cambridge University Press, 585-616.

Caston, V. (1999), 'Something and nothing: the Stoics on concepts and universals', *Oxford Studies in Ancient Philosophy* 17, 145-213.

Chaumartin, F.-R. (1996), 'La nature dans les Questions naturelles de Sénèque', in C. Lévy (ed.), *Le concept de nature à Rome: La physique*, Paris: Presses de l'École Normale Supérieure, 177-190.

Chaumartin, F.-R. (2003), 'Les sciences de la nature de la pensée de Sénèque et son rapport avec le stoïcisme', in C. Lévy et al. (eds.), *Ars et ratio: sciences, art et métiers dans la philosophie hellénistique et romaine*, Brussels: Latomus, 157-165.

Cherniss, H. (1976), *Plutarch, Moralia, Volume XIII, Part 2: Stoic Essays*, Cambridge, MA: Harvard University Press.

Christensen, J. (1962), *An essay on the unity of Stoic philosophy*, Copenhagen: Munksgaard.

Citroni Marchetti, S. (1991), *Plinio il Vecchio e la tradizione del moralismo romano*, Pisa: Giardini.

Codoñer, C. (1989), 'La physique de Sénèque: Ordonnance et structure des "Naturales Quaestiones"', *Aufstieg und Niedergang der römischen Welt* 2.36.3, 1779-1822.

Cooper, J. (1995), 'Eudaimonism and the Appeal to Nature in the Morality of Happiness: Comments on Julia Annas, The Morality of Happiness', *Philosophy and Phenomenological Research* 55.3, 587-598.

Cooper, J. (1996), 'Eudaimonism, the Appeal to Nature, and "Moral Duty"', in S. Engstrom and J. Whiting (eds.), *Aristotle, Kant and the Stoics. Rethinking Happiness and Duty*, 261-284.

Cooper, J. (2003), 'Stoic Autonomy', in *Social Philosophy and Policy* 20, 1-29.

Cooper, J. (2004), 'Moral theory and moral improvement: Seneca', in id., *Knowledge, Nature and the Good: Essays in Ancient Philosophy*, Oxford/Princeton: Princeton University Press, 309-334.

Cooper, J. (2009). 'Chrysippus on Physical Elements', in R. Salles (ed.), *God and Cosmos in Stoicism*, Oxford: Oxford University Press, 93-117.

Corcoran, T. H. (1971-2) (ed.), *Seneca. Naturales Questiones*, 2 vols., Cambridge, MA: Harvard University Press.

De Lacey, P. (1948), 'Stoic views of Poetry', *American Journal of Philology* 69, 241-71.

Díaz-Regañón López, J. M. (1983), 'El estoicismo de Eliano en su historia animalium', in *Unidad y pluralidad en el mundo antiguo, Actas del VI Congreso Español de Estudios Clásicos, Sevilla. 6-11 de abril de 1981*, vol. 2, Madrid: Gredos, 415-421.

Dietsche, U. (2014), *Strategie und Philosophie bei Seneca: Untersuchungen zur therapeutischen Technik in den "Epistulae morales"*, Berlin/Boston: de Gruyter.

Dillon, J. (1977), *The Middle Platonists 80 B.C. to A.D. 220*, London: Duckworth.

Dillon, J. (1996) (ed.), *Alcinous: The Handbook of Platonism*, Oxford: Clarendon Press.

Di Paola, O. (2016), 'Connections between Seneca and Platonism in *Epistulae ad Lucilium* 58', *An anthology of Philosophical Studies* 10, 15-25.

Donini, P. L. (1979), 'L'Eclettismo Impossibile. Seneca e il platonismo medio', in P. Donini and G. F. Gianotti (eds.), *Modelli Filosofici e Letterari. Lucrezio, Orazio, Seneca*, Bologna: Pitagora Editrice, 149-300.

Donini (1988a), 'The History of the Concept of Eclecticism' in J. Dillon A. A. Long, *The Question of 'Eclecticism': Studies in Later Greek Philosophy*, Berkeley, London: University of California Press, 15-33.

Donini, P. L. (1988b), 'Science and Metaphysics. Platonism, Aristotelianism and Stoicism in Plutarch's *On the Face in the Moon*', in J. M. Dillon and A. A. Long (eds.), *The Question of 'Eclecticism': Studies in Later Greek Philosophy*, Berkeley: University of California Press, 126-144.

Donini, P. L. and Inwood, B. (1999), 'Stoic Ethics', in K. Algra et al. (eds.), *The Cambridge History of Hellenistic Philosophy*, Cambridge: Cambridge University Press, 675-738.

Dyck, A. R. (1979), 'On the Composition and Sources of Cicero *De officiis* 1.50-58', *California Studies in Classical Antiquity* 12, 77-84.

Dyson, H. (2009), *Prolepsis and Ennoia in the Early Stoa*, Berlin/New York: de Gruyter.

Engberg-Pedersen, T. (1986), 'Discovering the Good', in G. Striker and M. Schofield (eds.), *The Norms of Nature: Studies in Hellenistic Ethics*, Cambridge: Cambridge University Press, 145-184.

Engberg-Pedersen, T. (1990), *The Stoic Theory of Oikeiosis: moral development and social interaction in early Stoic philosophy*, Aarhus: Aarhus University Press.

Engberg-Pedersen, T. (2010), 'Setting the Scene: Stoicism and Platonism in the Transitional Period in Ancient Philosophy', in id., T. Rasmus and I. Dunderberg (eds.), *Stoicism in Early Christianity*, Grand Rapids, MI: Baker Academic, 1-14.

Engberg-Pedersen, T. (2017), 'Introduction: A Historiographical Essay', in id. (ed.), *From Stoicism to Platonism: The Development of Philosophy, 100 BCE-100 CE*, Cambridge: Cambridge University Press, 1-26.

Erlar, M. (2009), 'Epicureanism in the Roman Empire', in J. Warren (ed.), *The Cambridge Companion to Epicureanism*, Cambridge: Cambridge University Press, 46-64.

Falcon, A. (2012), *Aristotelianism in the First Century BCE: Xenarchus of Seleucia*, Cambridge: Cambridge University Press.

Fedeli, P. (2000), 'Seneca e la natura', in P. Paronni, (ed), *Seneca e il suo tempo. Atti del Convegno (Roma-Cassino, 11-14 novembre 1998)*, Rome: Salerno, 25-45.

Ferrari, F. (2010), 'La costruzione del Platonismo nel de E apud Delphos di Plutarco', *Athenaeum* 98, 71-87.

Ferrero, A. M. (2014), 'Lost and Fragmentary Works', in G. Damschen and A. Heil (eds.), *Brill's Companion to Seneca: Philosopher and Dramatist*, Leiden/Boston: Brill, 207-212.

Festugière, A.-J. (1949), *La Révélation d'Hermès Trismégiste. Vol 2: Le Dieu cosmique*, Paris: Gabalda.

Fillion-Lahille, J. (1984), *Le «De ira» de Sénèque et la philosophie stoïcienne des passions*, Paris: Klincksieck.

Fletcher, R. (2014), *Apuleius' Platonism: The Impersonation of Philosophy*. Cambridge: Cambridge University Press.

Forschner, M. (2002), 'Theoria and Stoic Virtue. Zeno's Legacy in Cicero, *Tusculanae Disputationes V*', in T. Scaltsas and A. S. Mason (eds.), *The philosophy of Zeno: Zeno of Citium and his legacy*, Larnaca: Municipality of Larnaca, 58-90.

Frede, M. (1999a), 'Epilogue', in K. Algra et al. (eds.), *The Cambridge History of Hellenistic Philosophy*, Cambridge: Cambridge University Press, 771-797.

Frede, M. (1999b), 'The Stoic Conception of the Good', in K. Ierodiakonou (ed.), *Topics in Stoic Philosophy*, Oxford: Clarendon Press, 71-94.

Frede, M. (1994), 'The Stoic Conception of Reason', in K. Boudouris (ed.), *Hellenistic Philosophy*, vol. 2, Athens: The International Centre for Greek Philosophy and Culture, 50-62.

Frede, M. (2011), *A Free Will: Origins of the Notion in Ancient Thought*, Berkeley/Los Angeles/London: University of California Press.

French, R. (1994), *Ancient Natural History*, London, New York: Routledge.

Furley, D. (1999). 'Cosmology', in K. Algra et al. (eds.), *The Cambridge History of Hellenistic Philosophy*, Cambridge: Cambridge University Press, 412-451.

- Gauly, B. (2004), *Senecas 'Naturales Quaestiones': Naturphilosophie fur die romische Kaiserzeit*, Zetemata 122, Munich: C. H. Beck.
- Gauly, B. (2014), 'Cosmology and Natural philosophy', in G. Damschen and A. Heil (eds.) *Brill's Companion to Seneca: Philosopher and Dramatist*, Leiden/Boston: Brill, 363-378.
- Gee, E. (2013), *Aratus and the Astronomical Tradition*, Oxford: Oxford University Press.
- Gercke, A. (1895), *Seneca-Studien*, Leipzig: Teubner (Reprinted (1971), Nachdruck: Hildesheim).
- Gersh, S. (1986), *Middle Platonism and Neoplatonism. The Latin Tradition*, Notre Dame, IN.: University of Notre Dame Press.
- Gerson, L. P. and Inwood, B. (1988) (eds.), *Hellenistic Philosophy: Introductory Readings*, Indianapolis/Cambridge: Hackett Publishing Company.
- Gigon, O. (1991), 'Senecas *Naturales Quaestiones*', in P. Grimal (ed.), *Sénèque et la Prose Latine*, Geneva: Fondant Hardt, 313-346.
- Gill, C. (2000), 'Stoic Writers in the Imperial Era', in C. Rowe and M. Schofield (eds.), *The Cambridge History of Greek and Roman Political Thought*, Cambridge: Cambridge University Press, 597-615.
- Gill, C. (2003), 'The School in the Roman Imperial Period', in B. Inwood (ed.), *The Cambridge Companion to the Stoics*, Cambridge: Cambridge University Press, 33-58.
- Gill, C. (2004), 'The Stoic Theory of Ethical Development: In What Sense is Nature a Norm?', in J. Szaif and M. Lutz-Bachmann (eds.), *Was ist das für den Menschen Gute? Menschliche Natur und Güterlehre/What is Good for a Human Being? Human Nature and Values*, Berlin: de Gruyter, 101-125.
- Gill, C. (2006), *The Structured Self in Hellenistic and Roman Thought*, Oxford: Oxford University Press.
- Gill, C. (2007), 'Marcus Aurelius' *Meditations*: How Stoic and how Platonic?', in M. Bonazzi and C. Helmig (eds.), *Platonic Stoicism, Stoic Platonism: The Dialogue Between Platonism and Stoicism in Antiquity*. Leuven: Leuven University Press, 189-208.
- Gill, C. (2009a), 'Galen and the Stoics: What each could learn from the other about embodied psychology', in D. Frede and B. Reis (eds.), *Body and Soul in Ancient Philosophy*, Berlin, New York: de Gruyter, 409-434.
- Gill, C. (2009b), 'Seneca and Selfhood: Integration and disintegration', in S. Bartsch and D. Wray (eds.), *Seneca and the Self*, Cambridge: Cambridge University Press, 65-83.
- Gill, C. (2017), 'Oikeiōsis in Stoicism, Antiochus and Arius Didymus', in T. Engberg-Pedersen (ed.), *From Stoicism to Platonism: The Development of Philosophy, 100 BCE-100 CE*, Cambridge: Cambridge University Press, 100-119.

Goldin, O. (2011), 'Conflict and Cosmopolitanism in Plato and the Stoics', *Apeiron* 44, 264-286.

Görgemanns, H. (1983), 'Oikeiosis in Arius Didymus', in W. Fortenbaugh, *On Stoic and Peripatetic Ethics. The Work of Arius Didymus*, New Brunswick/London: Transaction Publishers, 163-89

Gould, J. (1970), *The Philosophy of Chrysippus*, Leiden: Brill.

Goulet, R. (1989-) (ed.), *Dictionnaire des Philosophes Antiques*, Paris: CNRS Éditions.
Grant E. (2007), *A History of Natural Philosophy. From the Ancient World to the Nineteenth Century*, Cambridge: Cambridge University Press.

Graver, M. (2012), 'Seneca And The *Contemplatio Veri* in *De Otio And Epistulae Morales*', in T. Benatouil and M. Bonazzi (eds.), *Theoria, Praxis, and the Contemplative Life after Plato and Aristotle*, Leiden/Boston: Brill, 75-100.

Graver, M. (1999), 'Commentary on Inwood', *Proceedings of the Boston Area Colloquium of Ancient Philosophy* 15.1, 44-56.

Graver, M. and Long, A. A. (eds.), *Seneca: Letters on Ethics to Lucilius*, Chicago, London: University of Chicago Press.

Griffin, M. (1992), *Seneca: A Philosopher in Politics*, 2nd ed., Oxford: Clarendon Press.

Griffin, M. (2007), 'Seneca's Pedagogic Strategy: *Letters* and *De Beneficiis*', in R. Sorabji and R. Shaples (eds.), *Greek And Roman Philosophy 100 BC-200 AD*, *Bulletin of the Institute of Classical Studies* 50, Supplement 94, vol. 1, 89-113.

Grilli, A. (1992), 'Le Naturales Quaestiones di Seneca tra scienza e filosofia', in id. (ed.), *Stoicismo, Epicureismo e letteratura*, Brescia: Claudiana, 459-478.

Grimal, P. (1991), 'Nature et fonction de la digression dans les oeuvres en prose de Sénèque', in id. (ed.), *Sénèque et la Prose Latine*, Geneva: Fondant Hardt, 219-252.

Gummere, R. M. (1917-1925) (ed.), *Seneca: Epistles*, 3 vols., Cambridge, MA.: Harvard University Press.

Gunderson, E. (2015), *The Sublime Seneca. Ethics, Literature, Metaphysics*, Cambridge: Cambridge University Press.

Hadot, I. (2014), 'Getting to Goodness: Reflections on Chapter 10 of Brad Inwood, *Reading Seneca*', in J. Wildberger and M. Colish (eds.), *Seneca Philosophus*, Boston/Berlin: de Gruyter, 9-42.

Hadot, P. (1979), 'Les divisions des parties de la philosophie dans l'Antiquité', *Museum Helveticum* 36, 201-223.

Hadot, P. (1995), *Philosophy as a Way of Life: Spiritual Exercises from Socrates to Foucault*, trans. M. Chase, Oxford/Cambridge, MA: Blackwell.

Hadot, P. (2002), *What is Ancient Philosophy?*, trans. M. Chase, London, Cambridge, MA: Belknap Press.

Hahm, D. E. (1977), *The Origins of Stoic Cosmology*, Columbus: Ohio State University Press.

Hahm, D. E. (2006), 'In search of Aristo of Ceos', in W. W. Fortenbaugh and S. A. White (eds.), *Aristo of Ceos. Text, translation and discussion*, New Brunswick/London: Transaction Publishers (2006), 179-215.

Hall, J. J. (1999), 'Seneca as a source for earlier thought (especially meteorology)', *Classical Quarterly*, 409-436.

Hankinson, R. J. (1988), 'Stoicism, Science and Divination', *Apeiron* 21.2, 123-60.

Hankinson, R. J. (1995), 'Philosophy of Science', in J. Barnes (ed.), *the Cambridge Companion to Aristotle*, Cambridge: Cambridge University Press, 140-167.

Hard, R. (2014) (ed.), *Epictetus: Discourses, Fragments, Handbook*, Oxford: Oxford University Press.

Harrison, G. W. M. (2000), 'Problems with the Genre of Problems: Plutarch's Literary Innovations', *Classical Philology* 95.2, 193-199.

Hatzimichali, M. (2017), 'Stoicism and Platonism in 'Arius Didymus'', in T. Engberg-Pedersen (ed.), *From Stoicism to Platonism: The Development of Philosophy, 100 BCE-100 CE*, Cambridge: Cambridge University Press, 80-99.

Helmbold, W. C., Minar, E. I. and Sandbach, W. C. (1961) (eds.), *Moralia, Volume IX: Table-Talk, Books 7-9. Dialogue on Love*, Cambridge, MA.: Harvard University Press.

Hicks, R. D. (1925) (ed.), *Diogenes Laertius: Lives of Eminent Philosophers, in Two Volumes*, vol. 2, London: William Heinemann.

Hine, H. M. (1981), *An Edition with Commentary of Seneca, Natural Questions, Book Two*, Salem: Ayer.

Hine, H.M. (1995), 'Seneca, Stoicism, and the problem of moral evil', in id., D. Innes and C. Pelling (eds.), *Ethics and rhetoric: classical essays for Donald Russell on his seventy-fifth birthday*, Oxford: Clarendon Press, 93-106.

Hine, H. M. (2006), 'Rome, the Cosmos, and the Emperor in Seneca's *Natural Questions*', *Journal of Roman Studies* 96, 42-72.

Hine, H. M. (2009), 'Seneca's *Natural Questions* 1960-2005 (Part 1)', in *Lustrum* 51, 253-329.

Hine, H. M. (2010b), 'Seneca's *Natural Questions* 1960-2005 (Part 2) - with Addenda covering 2006', *Lustrum* 52, 7-160.

Hine, H. M. (2010a) (ed.), *Lucius Annaeus Seneca: Natural Questions*, Chicago, London: Chicago University Press.

Hine, H. M. (2012), 'Tradition and Originality in Seneca, *Natural Questions* Book 2', in M. Beretta, F. Citti and L. Pasetti (eds.), *Seneca e le scienze naturali*, Florence: Leo Olschki, 31-47.

Holler, E. (1934), *Seneca und die Seelenteilungslehre und Affektpsychologie der Mittelstoa* (Kallmünz: M. Lassleben).

Hunt, H. K. (1967), 'The importance of Zeno's physics for an understanding of Stoicism of the late Roman Republic', *Apeiron* 1.2, 5-14.

Hutchinson, G.O. (1993), *Latin literature from Seneca to Juvenal. A critical study*, Oxford: Clarendon Press.

Ierodiakonou, K. (1993), 'The Stoic Division of Philosophy', *Phronesis* 38.1, 57-74.

Inwood, B., and Gerson, L. (1988), *Hellenistic philosophy: Introductory Readings*, Indianapolis: Hackett Publishing Company.

Inwood, B. (1984), 'Hierocles: theory and argument in the second century AD', *Oxford Studies in Ancient Philosophy* 2, 151-184.

Inwood, B. (1985), *Ethics and Human Action in Early Stoicism*, New York: Clarendon Press.

Inwood, B. (1995), 'Review of Julia Annas, *The Morality of Happiness*', *Ancient Philosophy* 15, 647-665.

Inwood, B. (2005a), 'God and Human Knowledge in Seneca's *Natural Questions*', in id., *Reading Seneca: Stoic Philosophy at Rome*, Oxford: Clarendon Press, 157-200.

Inwood, B. (2005b), 'Seneca and Psychological Dualism', in id., *Reading Seneca: Stoic Philosophy at Rome*, Oxford: Clarendon Press, 23-64.

Inwood, B. (2005c), 'Getting to Goodness', in id., *Reading Seneca: Stoic Philosophy at Rome*, Oxford: Clarendon Press, 271-301.

Inwood, B. (2005d), 'Seneca in his philosophical milieu', in id., *Reading Seneca: Stoic Philosophy at Rome*, Oxford: Clarendon Press, 7-22.

Inwood, B. (2005e), 'Politics and Paradox in Seneca's *De Beneficiis*', in id., *Reading Seneca: Stoic Philosophy at Rome*, Oxford: Clarendon Press, 65-94.

Inwood, B. (2005f), 'Rules and Reasoning in Stoic Ethics', in id., *Reading Seneca: Stoic Philosophy at Rome*, Oxford: Clarendon Press, 95-131.

Inwood, B. (2005g), 'The Will in Seneca', in id., *Reading Seneca: Stoic Philosophy at Rome*, Oxford: Clarendon Press, 132-156.

Inwood, B. (2005h), 'Moral Judgement in Seneca', in id., *Reading Seneca: Stoic Philosophy at Rome*, Oxford: Clarendon Press, 201-223.

Inwood, B. (2005i), 'Natural Law in Seneca', in id., *Reading Seneca: Stoic Philosophy at Rome*, Oxford: Clarendon Press, 224-248.

Inwood, B. (2005j), 'Reason, Rationalisation and Happiness', in id., *Reading Seneca: Stoic Philosophy at Rome*, Oxford: Clarendon Press, 249-270.

Inwood, B. (2005k), 'Seneca on Freedom and Autonomy', in id., *Reading Seneca: Stoic Philosophy at Rome*, Oxford: Clarendon Press, 302-321.

Inwood, B. (2005l), 'Seneca and Self-Assertion', in id., *Reading Seneca: Stoic Philosophy at Rome*, Oxford: Clarendon Press, 322-352.

Inwood, B. (2007a) 'Seneca, Plato and Platonism. The Case of Letter 65', in M. Bonazzi and C. Helmig (eds.), *Platonic Stoicism, Stoic Platonism: The Dialogue Between Platonism and Stoicism in Antiquity*. Leuven: Leuven University Press, 149-169.

Inwood, B. (2007b), *Seneca. Selected Philosophical Letters*, Oxford: Oxford University Press.

Inwood, B. (2007c), 'The importance of Form in Seneca's philosophical letters' in R. Morello and A. D. Morrison (eds.) *Ancient Letters: Classical and Late Antique Epistolography*, Cambridge: Cambridge University Press, 133-148.

Inwood, B. (2009), 'Why Physics?', in R. Salles (ed.), *God and Cosmos in Stoicism*, Oxford: Oxford University Press, 201-223.

Inwood, B. (2012), 'How unified is Stoicism anyway?', in R. Kamtekar (ed.), *Virtue and Happiness: Essays in Honour of Julia Annas*, *Oxford Studies in Ancient Philosophy*, Supplement, 223-244.

Inwood, B. (2017), 'The Legacy of Musonius Rufus', in T. Engberg-Pedersen (ed.), *From Stoicism to Platonism: The Development of Philosophy, 100 BCE-100 CE*, Cambridge: Cambridge University Press, 254-276.

Ioppolo, A. M. (1980), *Aristone di Chio e lo stoicismo antico*, Naples: Bibliopolis.

Ioppolo, A. M. (2012), 'Chrysippus and the Action Theory of Aristo of Chios', in R. Kamtekar (ed.), *Virtue and Happiness: Essays in Honour of Julia Annas*, *Oxford Studies in Ancient Philosophy*, Supplement, 197-222.

Irwin, T. (2003), 'Stoic Naturalism and its Critics', in B. Inwood (ed.), *The Cambridge Companion to the Stoics*, Cambridge: Cambridge University Press, 345-364.

Jackson-McCabe, M. (2004), 'The Stoic Theory of Implanted Preconceptions', *Phronesis* 49.4, 323-347.

Jeden, C. (2009), *Stoic Virtues. Chrysippus and the Theological Foundations of Stoics Ethics*, London: Continuum International Publishing Group.

Jones, A. (2003) 'The Stoics and the Astronomical sciences', in B. Inwood, *The Cambridge Companion to the Stoics*, Cambridge: Cambridge University Press, 328-344.

Jones, M. (2013), *Seneca: The World According to Nature*, diss., Princeton.

Kerferd, G. B. (1978), 'What Does the Wise Man Know?', in J. M. Rist (ed.), *The Stoics*, Berkeley/Los Angeles/London: University of California Press, 125-136.

Kidd, D. (1998) (ed.), *Aratus: Phaenomena*, Cambridge: Cambridge University Press.

Kidd, I. G. (1992), 'Theophrastus' Meteorology, Aristotle, Posidonius', in W. W. Fortenbaugh and D. Gutas (eds.), *Theophrastus: His Psychological, Doxographical, and Scientific Writings, Rutgers University Studies in Classical Humanities*, vol. 5, New Brunswick/London: Transaction Publishers.

Kidd, I. G. (1955), 'The Relation of Stoic Intermediaries to the *Summum Bonum*, with reference to change in the Stoa', *Classical Quarterly* 5.3/4, 181-94.

Kidd, I. G. (1978), 'Philosophy and science in Posidonius', *Antike und Abendland* 24, 7-15.

Kidd, I.G. (1988, 1989, 1999), *Posidonius: I. The fragments* (ed. with L. Edelstein), *Posidonius: II. The commentary* (2 vols.), *Posidonius: III. The translation of the fragments*, Cambridge: Cambridge University Press.

King, J. E. (1927), *Cicero. Tusculan Disputations*, Cambridge, MA.: Harvard University Press.

Klein, J. (2010), *Nature and Reason in Stoic Ethics*, diss. Cornell.

Klein, J. (2016), 'The Stoic Argument from *oikeiōsis*', *Oxford Studies in Ancient Philosophy* 50, 143-200.

Kleywegt, A. J. (1984), 'Cleanthes and the Vital Heat', in *Mnemosyne* 37.1, 94-102.

Kullman, W. (2005), 'Zu Senecas Vorstellungen von der Naturgesetzlichkeit in den *Naturales quaestiones*', in T. Baier, G. Manuwald and B. Zimmermann (eds.), *Seneca: Philosophus et Magister: Festschrift Für Eckard Lefèvre*, Berlin: Rombach, 139-148.

Kupreeva, I. (2009), 'Stoic Themes in Peripatetic Sources?', in R. Salles (ed.) *God and Cosmos in Stoicism*, Oxford: Oxford University Press, 135-170.

Lanzillotta, R. (2015), 'Plutarch's Anthropology and its influence on his cosmological framework', in M. Meeusen and L. van der Stockt (eds.), *Natural spectaculars: Aspects of Plutarch's Natural Philosophy*, Leuven: Leuven University Press, 179-195.

- Lapidge, M. (1973), 'ἀρχαί and στοιχεῖα: A Problem in Stoic Cosmology', *Phronesis* 18.3 240-278.
- Lapidge, M. (1989), 'Stoic Cosmology and Roman Literature, First to Third Centuries AD', *Aufstieg und Niedergang der römischen Welt* 2.36.3, 1379-1429.
- Larson, V. T. (1992), 'Seneca and the Schools of Philosophy in Early Imperial Rome', *Illinois Classical Studies* 17.1, 49-56.
- Lehoux D. (2011), 'Natural Knowledge in Classical Antiquity', in P. Harrison, R. Numbers, and M. Shank, (eds.), *Wrestling with Nature: From Omens to Science*, Chicago: University of Chicago Press, 37-58.
- Leitão, D. (1998), 'Senecan Catoptrics and the Passion of Hostius Quadra (Sen. Nat. 1)', *Materiali e discussioni per l'analisi dei testi classici* 41, 127-160.
- Lernould, A. (2006), 'Sur la composition de l'E de Delphes de Plutarque', in J. Boulogne, M. Broze and L. Couloubaritsis (eds.), *Les Platonismes des premiers siècles de notre ère. Plutarque, E de Delphes*, Brussels: OUSIA, 17-29.
- Lévy, C. (2003), 'Cicero and the *Timaeus*', in G. Reydams-Schils (ed.), *Plato's Timaeus as Cultural Icon*, Notre Dame, IN.: University of Notre Dame Press, 95-110.
- Limburg, F. (2007), *Aliquid ad mores: The prefaces and epilogues of Seneca's Natural Questions*, diss., Leiden.
- Limburg, F. (2008) 'The representation and role of badness in Seneca's moral teaching: a case from the *Naturales Quaestiones* (NQ 1.16)', in *KAKOS: Badness and Anti-Value in Classical Antiquity*, Leiden, Boston: Brill, 433-450.
- Lloyd, G. E. R. (1966), *Polarity and Analogy: Two Types Of Argumentation in Early Greek Thought*, Cambridge: Cambridge University Press.
- Long, A. A. (1968), 'The Stoic Concept of Evil', *Philosophical Quarterly*, 18.73, 329-343.
- Long, A. A. (1970), 'The logical basis of Stoic ethics', *Proceedings of the Aristotelian Society* 71, 85-104.
- Long, A. A. (1975/6), 'Heraclitus and Stoicism', *Philosophia* 5/6, 132-53.
- Long, A. A. (1982), 'Soul and body in Stoicism', *Phronesis* 27.1, 34-57.
- Long, A. A. (1985), 'The Stoics on world-conflagration and everlasting recurrence', *The Southern Journal of Philosophy* 23, Supplement, 13-37.
- Long, A. A. (1986), *Hellenistic Philosophy: Stoics, Epicurians, Sceptics*, 2nd ed., Berkeley/Los Angeles: University of California Press.

Long, A. A. (1996), 'The Socratic Tradition, Diogenes, Crates and Hellenistic Ethics', in R. B. Branham and M.-O. Goulet-Cazé (eds.), *The Cynics: The Cynic Movement in Antiquity and its Legacy*, Berkley/London: University of California Press, 28-46.

Long, A. A. (1992), 'Stoic readings of Homer', in R. Lamberton and J. J. Kenney (eds.), *Homer's ancient readers: The hermeneutics of Greek epic's earliest exegetes*, Princeton: Princeton University Press, 41-66.

Long, A. A. (1993), 'Hierocles on *Oikeiôsis* and Self-Perception', in K. J. Boudouris (ed.), *Hellenistic Philosophy*, vol. 1, Athens: International Center for Greek Philosophy and Culture, 93-104.

Long, A. A. (1999), 'Stoic psychology', in K. Algra et al. (eds.), *The Cambridge History of Hellenistic Philosophy*, Cambridge: Cambridge University Press, 560-584.

Long, A. A. (2003), 'Roman Philosophy', in D. N. Sedley (ed.), *The Cambridge Companion to Greek and Roman Philosophy*, Cambridge: Cambridge University Press, 184-210.

Long, A. A. (2017), 'Seneca and Epictetus on Body, Mind and Dualism', in T. Engberg-Pedersen (ed.), *From Stoicism to Platonism: The Development of Philosophy, 100 BCE-100 CE*, Cambridge: Cambridge University Press, 214-230.

Long, A. A. and Sedley, D. N. (1987), *The Hellenistic Philosophers*, 2 vols., Cambridge: Cambridge University Press.

Longrigg, J. (1975), 'Elementary Physics in the Lyceum and the Stoa', *Isis* 66.2, 211-229.

Lowe, D. (2014), 'Heavenly And Earthly Elements In Manilius' *Astronomica*', *Ramus* 43.1, 45-66.

Luck, G. (1984), 'A Stoic Cosmogony in Manilius (1.149-172)', in E. Lucchesi and H. D. Saffrey (eds.), *Mémorial André-Jean Festugière: Antiquité Pâinne et Chrétienne*, Geneca: Cramer, 27-32.

Ludlam, I. (2003), 'Two Long-running Stoic Myths: A Centralized Orthodox Stoic School and Stoic Scholarchs', *Elenchos* 24.1, 33-55.

Mader, G. (1983), 'Some observations on the Senecan Götterdämmerung', *Acta Classica* 26, 61-71.

Mannering, J. (2013), 'Seneca's Letters and Philosophical Writings', in E. Bucklet and M. T. Dinter, *The Blackwell Companion to the Age of Nero*, Malden: Wiley-Blackwell, 188-203.

Mansfeld, J. (1986), 'Diogenes Laertius on Stoic Philosophy', *Elenchos* 7, 295-382.

Mansfeld, J. (1999), 'Theology', in K. Algra et al. (eds.), *The Cambridge History of Hellenistic Philosophy*, Cambridge: Cambridge University Press, 452-478.

Mansfeld, J. (1992), 'Physikai doxai and Προβλήματα *physika* from Aristotle to Aetius (and Beyond)', in W. W. Fortenbaugh and D. Gutas (eds.), *Theophrastus: His Psychological, Doxographical and Scientific Writings, Rutgers University Studies in Classical Humanities 5*, New Brunswick, London: Transaction Publishers, 63-111.

Mansfeld, J. (2002), 'Zeno on the unity of philosophy', in T. Scaltsas and A. Mason (eds.), *The Philosophy of Zeno*, Larnaca: Municipality of Larnaca, 57-79

Mansfeld, J. (2005), 'From Milky Way To Halo: Aristotle's Meteorologica, Aëtius, and Passages in Seneca and The Acholia On Aratus', in A. Brancacci (ed.), *Philosophy and Doxography in the Imperial Age*, Florence: Leo Olschki, 23-58.

Mansfeld, J. (2013), 'Ps.Plutarch/Aëtius *Plac.* 4.11. Some Comments on Sensation and Concept Formation in Stoic Thought', *Mnemosyne* 67, 613-630.

Maurach, G. (1965), 'Zur Eigenart und Herkunft von Senecas Methode in den Naturales Quaestiones', *Hermes* 93.3, 357-369.

McCabe, M. M. (2005), 'Extend and Identify: Two Stoic Accounts of Altruism', in R. Salles (ed.) *Metaphysics, Soul and Ethics in Ancient Thought*, Oxford: Clarendon Press, 413-444.

Meeusen, M. (2012), 'Matching in Mind the Sea Beast's Complexion. On the Pragmatics of Plutarch's Hypomnemata and Scientific Innovation: The Case of Q. N. 19 (916 BF)', *Philologus* 156.2, 234-259.

Meeusen, M. (2014), 'Plutarch and the Wonder of Nature. Preliminaries to Plutarch's Science of Physical Problems', *Apeiron* 47.3, 310-41.

Meeusen, M. (2015), 'Plutarch Solving Natural Problems. For What Cause? (The Case of *Quaest. nat.* 29,919AB)', in id. and L. van der Stockt (eds.) *Natural spectaculars: Aspects of Plutarch's Natural Philosophy*, Leuven: Leuven University Press, 129-142.

Meeusen, M. and van der Stockt, L. (2015), 'Introducing Plutarch's Natural Philosophy', in id. (eds.), *Natural spectaculars: Aspects of Plutarch's Natural Philosophy*, Leuven: Leuven University Press, 1-12.

Menn, S. (1995), 'Physics as a Virtue', *Proceedings of the Boston Area Colloquium in Ancient Philosophy* 11.1, 1-34.

Menn, S. (2008), 'Commentary on Vogt', *Proceedings of the Boston Area Colloquium in Ancient Philosophy* 23.1, 175-184.

Merlan, P. (1968), *From Platonism to Neoplatonism*, 3rd ed., The Hague: Martinus Nijhoff.

Modrak, D. K. W. (1993), 'Stoics, Epicureans and Mental Content', *Apeiron* 26.2 (1993), 97-108.

Moles, J. L. (1996), 'Cynic Cosmopolitanism', in R. B. Branham and M.-O. Goulet-Cazé (eds.), *The Cynics: The Cynic Movement in Antiquity and its Legacy*, Berkley/London: University of California Press,

- Morau, P. (1973-2001), *Der Aristotelismus bei den Griechen: Von Andronikos bis Alexander von Aphrodisias*, 3 vols., Berlin/New York: de Gruyter.
- Morford, M. (2002), *The Roman Philosophers: From the time of Cato the Censor to the death of Marcus Aurelius*, London/New York: Routledge.
- Motto, A. L. (1970), *Seneca Sourcebook: Guide to the Thought of Lucius Annaeus Seneca*, Amsterdam: Adolf M. Hakkert.
- Münscher, K. (1922), *Senecas Werke. Untersuchungen zur Abfassungszeit und Echtheit*, *Philologos* 16.1, Supplement, 1-146.
- Natali, M. (1992), 'Gli Influssi Del Platonismo Sul Neostoicismo Senecano', *Rivista di Filosofia Neo-Scolastica* 84.2/3, 494-514.
- Natali, M. (1994), 'Tra Stoicismo e Platonismo: Concezione della Filosofia e del Fine Ultimodell'uomo in Seneca', *Rivista di Filosofia Neo-Scolastica* 86.3, 427-447.
- Obbink, D. (1999), 'The Stoic Sage in the Cosmic City', in Ierodiakonou, K. (ed.), *Topics in Stoic Philosophy*, Oxford: Clarendon Press, 178-195.
- Obbink, D. (1989), 'The Atheism of Epicurus', *Roman and Byzantine Studies* 30, 187-223.
- Oldfather, W. A. (1925), *Epictetus: Discourses, Books 1-2*, Cambridge, MA.: Harvard University Press.
- Oltramare, P. (1961) (ed.), *Questions naturelles: texte établi et traduit*, Paris: Les Belles Lettres.
- Opsomer, J. (1998), *In Search of the Truth: Academic Tendencies in Middle Platonism*, Brussels: Paleis der Academiën.
- Opsomer, J. (2006), 'Éléments stoïciens dans le *De E apud Delphos* de Plutarque', in J. Boulogne et al. (eds), *Les platonismes des premiers siècles de notre Ère. Plutarque*, Bruxelles: OUSIA, 147-170
- Orlando, A., 'Seneca on *prolepsis*. Greek sources and Cicero's influence', in J. Wildberger and M. Colish (eds.), *Seneca Philosophus*, Boston/Berlin: de Gruyter, 43-64.
- Pangle, T. L. (1998), 'Socratic Cosmopolitanism. Cicero's Critique and Transformation of the Stoic ideal', *Canadian Journal of Political Science* 31.2, 235-262.
- Paparazzo, E. (2011), 'Philosophy and Science in the Elder Pliny's *Naturalis Historia*', in R. K. Gibson and R. Morello (eds), *Pliny the Elder: Themes and Contexts*, 89-111.
- Parroni, P. (2000), 'Le Naturales Quaestiones fra scienza e morale', in id. (ed.), *Seneca e il suo tempo, Atti del convegno internazionale di Roma – Cassino, 11-14 nov. 1998*, Rome: Salerno, 433-444.
- Pembroke, S. G. (1971), 'Oikeiosis', in A. A. Long (ed.), *Problems in Stoicism*, London: Athelone Press, 114-149.

Pohlenz, M. (1940), *Grundfragen der stoischen Philosophie*, Göttingen: Vandenhoeck and Ruprecht.

Pohlenz, M. (1948-9), *Die Stoa: Geschichte einer geistigen Bewegung*, 2 vols., Göttingen: Vandenhoeck and Ruprecht.

Porter, J. I. (1996), 'The Philosophy of Aristo of Chius', in R. B. Branham and M.-O. Goulet-Cazé (eds.), *The Cynics: The Cynic Movement in Antiquity and its Legacy*, Berkley/London: University of California Press, 156-189.

Ramelli, I. (2009), (ed.), *Hierocles the Stoic: Elements of Ethics, Fragments, and Excerpts*, with translation by D. Konstan, Atlanta: Society of Biblical Literature.

Reesor, M. (1989), *The Nature of Man in Early Stoic Philosophy*, London: Duckworth.

Reinhardt, K. (1921), *Poseidonios*, München: C. H. Beck.

Reydams-Schils, G. (1999), *Demiurge and Providence: Stoic and Platonist Readings of Plato's Timaeus*, Turnhout: Brepols Publishers.

Reydams-Schils, G. (2002), 'Human Bonding and *Oikeiosis* in Roman Stoicism', *Oxford Studies in Ancient Philosophy* 22, 221-251.

Reydams-Schils, G. (2005a), *The Roman Stoics: Self, Responsibility and Affection*, Chicago, London: The University of Chicago Press.

Reydams-Schils (2005b), 'Le sage face à Zeus. Logique, éthique et physique dans le stoïcisme impérial', *Revue de Métaphysique et de Morale* 4, 579-596

Reydams-Schils, G. (2006), 'The Roman Stoics on Divine Thinking and Human Knowledge', in S. Gersh and D. Moral (eds.), *Eriugena, Berkeley and the Idealist Tradition*, Notre Dame, IN.: University of Notre Dame Press, 81-94.

Reydams-Schils, G. (2010a), 'Philosophy and education in Stoicism of the Roman Imperial era', *Oxford Review of Education* 36.5, 561-574.

Reydams-Schils, G. (2010b), 'Seneca's Platonism. The Soul and its divine origin', in A. Nightingale and D. N. Sedley (eds.), *Ancient Models of Mind. Studies in human and divine rationality*, Cambridge: Cambridge University Press, 196-215.

Reydams-Schils (2011), 'Authority and Agency in Roman Stoicism', in *Greek, Roman and Byzantine Studies* 51, 296-322.

Reydams-Schils, G. (2013), 'The Academy, the Stoics and Cicero on Plato's *Timaeus*', in A. G. Long (ed.), *Plato and the Stoics*, Cambridge: Cambridge University Press, 29-58.

Reydams-Schils G. (2016), 'Teaching Pericles. Cicero on the Study of Nature', in K. Volk and G. Williams (eds.), *Roman Reflections: Studies in Latin Philosophy*, Oxford: Oxford University Press, 91-107.

Reydams-Schils, G. (2017), "'Becoming like God" in Platonism and Stoicism', in T. Engberg-Pedersen (ed.), *From Stoicism to Platonism: The Development of Philosophy, 100 BCE-100 CE*, Cambridge: Cambridge University Press, 142-158.

Rist, J. M. (1969), *Stoic Philosophy*, New York: Cambridge University Press.

Rist, J. M. (1989), 'Seneca and Stoic Orthodoxy', *Aufstieg und Niedergang der römischen Welt* 2.36.3, 1993-2012.

Roseman, C. H. (2005), 'Reflections of philosophy: Strabo and geographical sources', in D. Dueck, H. Lindsay and S. Potheary (eds.), *Strabo's Cultural Geography: The Making of a Kolossourgia*, 27-41.

Rosenmyer, T. G. (1989), *Senecan Drama and Stoic Cosmology*, Berkeley, Los Angeles, Oxford: University of California Press.

Rosenmeyer, T. G. (2000), 'Seneca and Nature', *Arethusa* 33.1, 99-119

Runia, D. T. (2009), 'Additional Fragments Of Arius Didymus On Physics', in id. and J. Mansfeld (eds.) *Aëtiana: The Method and Intellectual Context of a Doxographer, Volume III, Studies in the Doxographical Traditions of Ancient Philosophy*, Leiden/New York/Koln: Brill, 313-332.

Russell, D. A. (1974), 'Letters to Lucilius', in C. D. N. Costa (ed.), *Seneca*, London: Routledge and Kegan Paul, 70-95.

Salles, R. (2014), 'Roman Stoicism', in F. Sheffield and J. Warren (eds.), *The Routledge Companion to Ancient Philosophy*, New York/London: Routledge.

Salles, R. (2009). 'Chrysippus on Conflagration and the Indestructibility of the Cosmos', in id. (ed.), *God and Cosmos in Stoicism*, Oxford: Oxford University Press, 118-34.

Sambursky, S. (1959). *The Physics of the Stoics*. London: Routledge.

Sandbach, F. H. (1985), *Aristotle and The Stoics*, Cambridge: Cambridge Philological Society.

Sandbach, F. H. (1989), *The Stoics*, 2nd edition, London: Bristol Classical Press.

Scade, P. (2013), 'Plato and the Stoics on limits, parts and wholes', in A. G. Long (ed.). *Plato and the Stoics*, Cambridge: Cambridge University Press, 80-105.

Schepens, G. and Delcroix, K. (1996), 'Ancient Paradoxography: Origin, Evolution, Production and Reception', in O. Pecere and A. Stramaglia (eds.), *La letteratura di consumo nel mondo greco-latino: Atti del convegno internazionale, Cassino, 14-17 settembre 1994*, Cassino: Università degli studi di Cassino, 373-460.

Schofield, M. (1980), 'Preconception, Argument and God', in id., M. Burnyeat and J. Barnes (eds.), *Doubt and Dogmatism: Studies in Hellenistic Epistemology*, Oxford, Clarendon Press, 283-308.

Schofield, M. (1991), *The Stoic Idea of the City*, Cambridge: Cambridge University Press.

Schofield, M. (1995), 'Two Stoic Approaches to Justice', in id. and A. Laks (eds.), *Justice and Generosity. Studies in Hellenistic Social and Political Philosophy Proceedings of the Sixth Symposium Hellenisticum*, 191-212.

Schofield, M. (2003), 'Stoic Ethics', in B. Inwood, *The Cambridge Companion to Stoic Ethics*, Cambridge: Cambridge University Press, 233-56.

Schofield, M. (2017), 'Cicero's Plato', in T. Engberg-Pedersen (ed.), *From Stoicism to Platonism: The Development of Philosophy, 100 BCE-100 CE*, Cambridge: Cambridge University Press, 47-66.

Schrenk, L. P., 'A Middle Platonic Reading of Plato's Theory of Recollection', *Ancient Philosophy* 11 (1991), 103-110.

Scott, D. (1987), 'Platonic anamnesis revisited', *Classical Quarterly* 37, 346-366.

Scott, J. (1999), 'The Ethics of the Physics in Seneca's *Natural Questions*', *The Classical Bulletin* 75.1, 55-68.

Scott Smith, R. (2013), '*De Providentia*', in G. Damschen and A. Heil (eds.), *Brill's Companion to Seneca: Philosopher and Dramatist*, Leiden/Boston: Brill, 115-120.

Seal, C. (2015), 'Theory and Practice in Seneca's Writings', in S. Bartsch and A. Schiesaro (eds.), *The Cambridge Companion to Seneca*, Cambridge: Cambridge University Press, 212-223.

Sedley, D. N. (1985), 'The Stoic Theory of Universals', *The Southern journal of Philosophy* 23, Supplement, 87-92.

Sedley, D. N. (1999), 'Hellenistic Physics and Metaphysics', in K. Algra et al. (eds.), *The Cambridge History of Hellenistic Philosophy*, Cambridge: Cambridge University Press, 355-411.

Sedley, D. N. (2002), 'The Origins of Stoic God', in D. Frede and A. Laks (eds.), *Traditions of Theology: Studies in Hellenistic Theology, its Background and Aftermath*, Leiden: Brill, 41-84.

Sedley, D. N. (2003), 'The School, from Zeno to Arius Didymus', in B. Inwood (ed.), *The Cambridge Companion to the Stoics*, 7-32.

Sedley, D. N. (2005), 'Stoic Metaphysics at Rome', in R. Salles (ed.), *Metaphysics, Soul and Ethics in Ancient Thought: Themes from the Work of Richard Sorabji*, Oxford: Clarendon Press, 117-42.

Sellers, J. (2006), *Stoicism*, Chesham: Acumen.

Sellers, J. (2007), 'Stoic Practical Philosophy in the Imperial Period', in R. Sorabji and R. Shaples (eds.), *Greek And Roman Philosophy 100 BC-200 AD*, *Bulletin of the Institute of Classical Studies* 50, Supplement 94, vol. 1, 115-140.

Sellers, J. (2009), *The Art of Living: The Stoics on the Nature and Function of Philosophy*, 2nd ed., London/New Delhi/New York/Sydney: Bloomsbury.

Sellers, J. (2010), 'Stoic Ontology and Plato's Sophist', in V. Harte et al. (eds.), *Aristotle and the Stoics Reading Plato*, *British Institute of Classical Studies* 54, Supplement 107, London: Institute of Classical Studies, 185-204.

Sellers, J. (2014), 'Context: Seneca's Philosophical Predecessors and Contemporaries', in G. Damschen and A. Heil (eds.), *Brill's Companion to Seneca: Philosopher and Dramatist*, Leiden/Boston: Brill, 97-114.

Setaioli, A. (1988), *Seneca e i Greci: Citazioni e traduzioni nelle opere filosofiche*, Bologna: Pàtron.

Setaioli, A. (2000), *Facundus Seneca: Aspetti della lingua e dell'ideologia senecana*, Bologna: Pàtron, 9-96

Setaioli, A. (2007), 'Seneca and the divine. Stoic tradition and personal developments', *International Journal of the Classical Tradition* 13.3, 333-368

Setaioli, A. (2013b), 'Epistulae Morales', in G. Damschen and A. Heil (eds.), *Brill's Companion to Seneca: Philosopher and Dramatist*, Leiden/Boston: Brill, 191-200.

Setaioli, A. (2013a), 'Physics III: Theology', in G. Damschen and A. Heil (eds.), *Brill's Companion to Seneca: Philosopher and Dramatist*, Leiden, Boston: Brill, 379-401.

Sharples, R. W. (1996), *Stoics, Epicureans and Sceptics: An introduction to Hellenistic Philosophy*, London, New York: Routledge.

Sharples, R. W. (2010), *Peripatetic Philosophy 200 BC to AD 200: An Introduction and Collection of Sources in Translation*, Cambridge: Cambridge University Press.

Sharples, R. W. (2002), 'Some problems in Lucretius' account of vision', *Leeds International Classical Studies* 1.2, 1-11.

Sierksma-Agteres, S. (2015), 'Say goodbye to Opinions!' Plutarch's philosophy of natural phenomena and the journey to metaphysical knowledge', in M. Meeusen and L. van der Stockt (eds.), *Natural spectacles: Aspects of Plutarch's Natural Philosophy*, Leuven: Leuven University Press, 57-71.

Smiley, C. N. (1934), 'Stoicism and Its Influence on Roman Life and Thought', *The Classical Journal* 29.9, 645-657.

Solmsen, F. (1961), *Cleanthes or Posidonius?: The basis of Stoic physics*, *Mededelingen der Koninklijke Nederlandse Akademie van Wetenschappen* 24.9, 265-289.

Sorabji, R. (1988). *Matter, space and motion: theories in antiquity and their sequel*, Ithaca: Cornell University Press.

Stahl, G. (1960), *Aufbau, Darstellungsform und philosophischer Gehalt der Naturales Quaestiones des L.A. Seneca*, diss, Kiel.

Stahl, G. (1964), 'Die Naturales Quaestiones Senecas. Ein Beitrag zum Spiritualisierungsprozeß der römischen Stoa', *Hermes* 92, 425-454.

Striker, G. (1989) 'The Role of *oikeiōsis* in Stoic Ethics', *Oxford Studies in Ancient Philosophy* 1, 145-167.

Striker, G. (1991), 'Following Nature: A study in Stoic ethics', *Oxford Studies in Ancient Philosophy* 9, 1-73.

Strohm, H. (1977) 'Beiträge zum Verständnis der Naturales Quaestiones Senecas', in H. Bannert and J. Divjak (eds.), *Latinität und alte Kirche (Festschrift Hanslik)*, *Wiener Studien, Beiheft* 8, Vienna, Cologne, and Graz: Böhlau Verlag, 309–25.

Strohm, H. (1985), 'Griechische Naturwissenschaft in Rom: Seneca's Naturales Quaestiones', in W. Krehmer (ed.), *Von Herzen gern. Festschrift zum 240jährigen Bestehen des Gymnasium Fridericianum Erlangen*, Erlangen: Gymnasium Fridericianum, 263- 271.

Sauvé Meyer, S. (2008) *Ancient Ethics*, London, New York: Routledge.

Tarrant, H. (1983), 'The date of Anon. In Theaetetus', *The Classical Quarterly* 33.1, 161-187.

Taub, L. (1993), *Ptolemy's Universe: The Natural Philosophical and Ethical Foundations of Ptolemy's Astronomy*, Chicago/LaSalle: Open Court Publishing Company.

Taub, L. (2003), *Ancient Meteorology*, London, New York: Routledge.

Taub, L. (2009), 'Cosmology and Meteorology', in J. Warren (ed.), *The Cambridge Companion to Epicureanism*, Cambridge: Cambridge University Press, 105-124.

Taub, L. (2010), 'Translating the *Phainomena* across genre, language and culture', in A. Imhausen and T. Pommerening (eds.), *Writings of Early Scholars in the Ancient Near East, Egypt, Rome, and Greece: Translating Ancient Scientific Texts, Beiträge zur Altertumskunde*, Bd. 286, Berlin, New York: de Gruyter, 119-137.

Thompson, C. L. (1973), *Stoic Allegory of Homer: A Critical Analysis of Herclitus' Homeric Allegories*, diss. Yale.

Thorsteinsson, R. (2010), *Roman Christianity and Roman Stoicism: a comparative study of ancient morality*, Oxford/New York: Oxford University Press.

- Thorsud, H. (2009), *Ancient Scepticism*, Berkley: University of California Press.
- Tieleman, T. (2007), 'Onomastic Reference in Seneca. The Case of Plato and the Platonists', in M. Bonazzi and C. Helmig (eds.), *Platonic Stoicism, Stoic Platonism: The Dialogue Between Platonism and Stoicism in Antiquity*, Leuven: Leuven University Press, 133-148.
- Todd, R. B. (1978), 'Monism and Immanence', in J. M. Rist (ed.), *The Stoics*, Berkeley: University of California Press, 137-160.
- Todd, R. B. (1989), 'The Stoics and their cosmology in the first and second centuries A.D.', *Aufstieg und Niedergang der römischen Welt* 2.36.3, 1365-1378.
- Toohy, P. (1996), *Epic Lessons: an introduction to ancient didactic poetry*, London: Routledge.
- Toulouse, S. (2005), 'Les sciences et l'âme chez Posidonius. Remarques sur une définition de l'âme conservée dans Plutarque et sur le statut de l'astronomie et des mathématiques dans sa philosophie', in G. Dherbey and J.-B. Gourinat (eds.), *Les Stoïciens*, Paris: Librairie Philosophique Vrin, 153-174.
- Traina, A. (1995), *Lo stile "drammatico" del filosofo Seneca*, Bologna: Pàtron
- Trapp, M. (2007a), *Philosophy in the Roman Empire: Ethics, Politics and Society*, Aldershot: Ashgate.
- Trapp, M. (2007b), 'Neopythagoreans', in R. Sorabji and R. Shaples (eds.), *Greek And Roman Philosophy 100 BC-200 AD*, *Bulletin of the Institute of Classical Studies* 50, Supplement 94, vol. 2, 347-363.
- Tsekourakis, D. (1974), *Studies in the Terminology of Early Stoic Ethics*, Wiesbaden: Steiner.
- Tutrone, F. (forthcoming), 'Seneca on the Nature of Things: Moral Concerns and Theories of Matter in *Natural Questions* 6'.
- van der Stockt, L. (1992), 'Plutarch on τέχνη', in I. Gallo (ed.), *Plutarco e le scienze, Atti del IV Convegno plutarco, Genova-Bocca di Magra, 22-25 aprile 1991*, Genova: Sage, 287-295.
- van Straatan, M. (1946), *Panétius, sa vie, ses écrits et sa doctrine, avec une édition des fragments*, Amsterdam: H.J. Paris.
- Verbeke, G. (1945), *L'évolution de la doctrine du pneuma stoïcisme du à S. Augustin, étude philosophique*, Paris: Bibliothèque de l'Institut Supérieur de Philosophie.
- Veyne, P. (2003), *Seneca: The Life of a Stoic*, New York/London: Routledge.
- Voelke, A.-J. (1993), *La philosophie comme thérapie de l'âme: études de philosophie hellénistique*, Fribourg: Academic Press.

- Vogt, K. M. (2008a) 'The Good is Benefit: on the Stoic Definition of the Good', *Boston Area Colloquium in Ancient Philosophy* 23.1, 155-186.
- Vogt, K. M. (2008b) *Law, Reason, and the Cosmic City: Political Philosophy in the Early Stoa*, Oxford: Oxford University Press.
- Vogt, K. M. (2009), 'Sons of the Earth: Are the Stoics Metaphysical Brutes?', *Phronesis* 54.2, 136-154.
- von Armin, J. (1903-24), *Stoicorum Veterum Fragmenta*, 4 vols., Leipzig: Teubner.
- Vottero, D. (1998a) (ed.), *Lucio Anneo Seneca: I frammenti*. Bologna: Pàtron.
- Vottero, D. (1998b), 'Seneca e la natura', in R. Uglione (ed.), *L'uomo antico e la natura, Atti del convegno nazionale di studi, Torino 28-29-30 aprile 1997*, Torino: Celid, 291-303.
- Vottero, D. (1989) (ed.), *Questioni naturali di Lucio Annaeo Seneca*, Torino: Unione Tipografica.
- Watson, G. (1971), 'The Natural Law in Stoicism', in A. A. Long (ed.), *Problems in Stoicism*, London: Athelone Press, 216-238.
- Weber, D. (1995), 'Ethik und Naturwissenschaft. Die Praefatio zu Senecas Naturales Quaestiones', in H. Schwabl (ed.), *Zur Philosophie der Antike*, Vienna: Sonderheft, 73-92.
- Weisser, S. and Thaler, N. (2016), 'Introduction', in id. (eds.), *Strategies of Polemics in Greek and Roman Philosophy*, Leiden, Boston: Brill, 1-15.
- White, N. (1985a), 'The Role of Physics in Stoic Ethics', *The Southern Journal of Philosophy* 23.5, Supplement, 57-74.
- White, N. (1985b), 'Nature and regularity in Stoic ethics: a discussion of Anna Maria Ioppolo, Aristone de Chio e lo stoicismo antico', *Oxford Studies in Ancient Philosophy* 5, 289-306.
- White, N. (2003), 'Stoic Natural Philosophy (Physics and Cosmology)', in B. Inwood (ed.), *The Cambridge Companion to the Stoics*, Cambridge: Cambridge University Press, 124-152.
- White, N. (2007), 'Posidonius and Stoic Physics', in R. Sorabji and R. Shaples (eds.), *Greek And Roman Philosophy 100 BC-200 AD*, *Bulletin of the Institute of Classical Studies* 50, Supplement 94, vol. 1, 35-76.
- Wildberger, J. (2008), 'Beast or God? – The Intermediate Status of Humans and the Physical Basis of the Stoic Scala Naturae', in A. Alexandridis, M. Wild and L. Winkler-Horaček (eds.), *Mensch und Tier in der Antike: Grenzziehung und Grenzüberschreitung: Symposium vom 7. bis 9. April in Rostock*, Wiesbaden: Reichert Verlag, 47-63.

Wildberger, J. (2010), 'Praebam enim me facile opinionibus magnorum virorum. The reception of Plato in Seneca, *Epistulae Morales* 102', in V. Harte, M.M. McCabe and R. Sharples (eds.), *Aristotle and the Stoics Reading Plato*, *British Institute of Classical Studies*, Supplement 107, London: Institute of Classical Studies, 205-332.

Wildberger, J. (2012), *Seneca und die Stoa: Der Platz des Menschen in der Welt*, 2 vols., Berlin: de Gruyter.

Wildberger, J. (2013), 'Ethics IV: Wisdom and Virtue', in G. Damschen and A. Heil (eds.), *The Brill Companion to Seneca*, Leiden, Boston: Brill, 301-322.

Williams, G. (2005b), 'Seneca on Winds: The Art of Anemology in *Natural Questions* 5', *American Journal of Philology* 126.3, 417-50.

Williams, G. (2005a), 'Interactions: Physics, Morality, and Narrative in Seneca *Natural Questions* 1', *Classical Philology* 100.2, 142-65.

Williams, G. (2006), 'Greco-Roman Seismology and Seneca on Earthquakes in *Natural Questions* 6', *Journal of Roman Studies* 96, 124-46.

Williams, G. (2007), 'Seneca on Comets and Ancient Cometary Theory in *Natural Questions* 7', *Ramus* 36.2, 97-117.

Williams, G. (2008b), 'Cold Science: Seneca on Hail and Snow in *Natural Questions* 4B', *The Cambridge Classical Journal* 54, 209-36.

Williams, G. (2008a), 'Reading the Waters: Seneca on the Nile in *Natural Questions*, Book 4A.', *Classical Quarterly* 58.1, 218-42.

Williams, G. (2012), *The Cosmic Viewpoint: A Study of Seneca's Natural Questions*, New York: Oxford University Press.

Williams, G. (2013), 'The Natural Questions', in G. Damschen and A. Heil (eds.), *The Brill Companion to Seneca*, Leiden, Boston: Brill, 181-190.

Williams, G. (2014), 'Double Vision and Cross Reading in Seneca's *Epistulae Morales* and *Naturales Quaestiones*', in J. Wildberger and M. Colish (eds.), *Seneca Philosophus*, Berlin/Boston: de Gruyter.

Williams, G. (2016) 'Minding the Gap. Seneca, the Self and the Sublime', in id. and K. Volk (eds.), *Roman Reflections. Studies in Roman Philosophy*, Oxford: Oxford University Press, 172-191.

Wilson, M. (2013), *Structure and Method in Aristotle's Meteorologica: A More Disorderly Nature*, Cambridge: Cambridge University Press.

Wilson, M. (2001), 'Seneca's Epistles Reclassified', in R. Morello and A. Morrison (eds.), *Texts, Ideas and the Classics*, Oxford: Oxford University Press, 164-187.

Zambon, M. (2006), 'Middle Platonism', in M. L. Gill and P. Pellegrin (eds.), *The Blackwell Companion to Ancient Philosophy*, Oxford: Blackwell, 561-576.

Zeller, E. (1909), *Die Philosophie der Griechen in ihrer geschichtlichen Entwicklung*, 4th edition, Leipzig: Fues.