Descartes and Education: Risk and Reception, 1637-48

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Abstract

This thesis discusses Descartes' conception and negotiation, in the period from 1637 to 1648, of the responsibilities arising from teaching. His concerns spring particularly from the teaching of sceptical arguments, and from his efforts to maintain his project's integrity as his followers take it up. My argument is twofold: that such responsibilities were a persistent and prominent concern through this crucial period in his career, and that they offered terms of criticism within which major early responses to his work, friendly and hostile, were formulated. In Chapter 1, I show how these concerns shape the *Principia*. Chapter 2 argues that Descartes' conception of his responsibilities are rooted in a widespread early modern conception of the risks of scepticism, and that they are visible, within the *Discours*, in his remarks about exemplarity and publication, as well as in the actual business of publishing the text. In Chapter 3, these concerns are linked to a positive conception of the gains Descartes hoped to secure for his students against pressures within Aristotelianism. Finally, in Chapter 4, I show that Descartes' critics mobilise this understanding to frame early attacks on the interactions between Cartesianism and existing scholastic institutions. In closing, I suggest three directions in which to develop historiographical issues raised in the thesis.

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Long abstract

This thesis discusses Descartes' conception and negotiation, in the period from 1637 to 1648, of the responsibilities arising from teaching. His concerns spring particularly from the teaching of sceptical arguments, and from his efforts to maintain his project's integrity as his followers take it up. My argument is twofold: that such responsibilities were a persistent and prominent concern through this crucial period in his career, and that they offered terms of criticism within which major early responses to his work, friendly and hostile, were formulated.

I build on the reevaluation of Descartes and his contexts which has taken place over the last thirty years. New work on Descartes in the history of ideas has typically been motivated by two tasks, each of which addresses longstanding misrepresentations of Descartes in the historiography. The first is to challenge a portrait of him as a solitary thinker whose importance rests primarily on his method and metaphysics. The second task is to reach a better understanding of Cartesianism as it began to take shape during Descartes' lifetime and as it developed over the second half of the seventeenth century. Questions of education provide a good framework within which to pursue these tasks: Descartes' conception of teaching, his attempts to write textbooks, and his relationships with students, professors, and schools throw light on his (sometimes imperfect) understanding of contemporary debates and institutions, and his attempts to navigate them; on the influence of existing texts and genres on his own formal choices; on Aristotelian features of his thought which provide continuity with existing curricula; on his occasional attempts to mask or adapt more radical aspects of his work; on his failure to produce a textbook which could be unproblematically adopted by the teaching institutions of his day; and on the challenges this failure set for those who tried to continue his project. Existing work on Descartes' conception of teaching, however, has focused primarily on the scholastic context for his work, and on the *Principia*. This neglects questions about the development of his attitude towards education and towards the construction of teaching texts, and about relationships between these attitudes and other aspects of his thought. I address these questions here. Doing so, I aim to provide historians of ideas with an account of Descartes' engagement with teaching in the 1640s which is more closely integrated with concerns about teaching and dissemination insistently present in his earlier work, and of the consequences these had for the reception of his thought.

My discussion is in four chapters. The first introduces a framework of texts, contexts, and concerns for the discussion that follows; the second and third explore the motivations for Descartes' conception

of teaching and the way it shapes his texts and institutional engagements; the fourth examines the role this conception plays in the reception of Cartesianism. Within each chapter, I alternate between contextual discussions and close readings of Descartes' work, and particularly his paratexts, which contain the bulk of his remarks on reading and obligation.

Chapter 1 starts from a formal split in Descartes' work which occurs around 1641. This separates earlier texts like the *Discours* and the *Méditations*, in which the first-person singular is prominent, from later ones like the *Principia* and the *Passions*, where it is largely absent. The shift was motivated by Descartes' desire to produce books which could serve as teaching texts. But it does not mark the first moment in which concerns about teaching exert a formal influence on his writing. Versions of such concerns are prominent in his early work, where they are primarily of two sorts: concerns about the dangers which readers, and students more broadly, may face when engaging with his sceptical arguments, and concerns about the damage which clumsy followers may do to the edifice he has been constructing. These concerns about education were deemphasised in the first moments after the split; this is particularly visible in the first edition of the *Principia*. But, with the situation of Cartesianism changing in the 1640s as it faced both greater success and greater opposition, many of the problems Descartes was trying to anticipate and forestall came to be realised. Questions about Cartesianism's public career came back to haunt him as Regius provoked controversy in Utrecht, and new versions of his concerns were gradually rearticulated in later texts, particularly in the first French edition of the *Principia*.

In Chapter 2, I discuss the approach to teaching Descartes developed prior to 1641, particularly in the *Discours*. These concerns were inherited from a broader understanding of the dangers of scepticism in early modern Europe, where they arose particularly as questions about the vulnerability of the young. Across his career, Descartes took different positions on how serious such concerns were: in earlier texts he accepted the widespread view that they must be taken seriously; in later texts, he claimed the dangers of scepticism had passed, but argued that an analogous set of risks still operated within contemporary Aristotelianism. His acceptance of the widespread view meant that, especially in the *Discours*, his account of how his text should be read was developed alongside questions about his responsibilities in exposing his readers to such dangers. His description of the *Discours* as exemplary should be understood as a way of negotiating concerns about responsibility in teaching. Such concerns were operative, too, in his remarks about the publication of the *Discours*, both in the text itself and in his correspondence.

Chapter 3 takes up Descartes' claim that there is a parallel between the dangers of scepticism and those of scholasticism. The previous chapter focused on reasons of self-defence motivating Descartes' attitude towards teaching; I look here, by contrast, at his attempt to secure a particular way of thinking for his students, against pressures which exert themselves within Aristotelianism. These pressures show up as doubts about the worthwhileness of inquiry, particularly for beginners, and particularly as a means of achieving happiness. Descartes echoes the Socratic claim that the teacher's role is to defend their students against such pressures, present most clearly in the *Meno* discussion of the possibility of teaching. In Descartes' work, this conception is most prominent in the *Recherche de la vérité*, but many of his characteristic moves in the *Discours* and the *Méditations* also express it: it is particularly present, I argue, in his view that education in philosophy is the acquisition of a skill. This conception gives a new way of understanding the sense in which Socrates served Descartes as a model. But this idea of the teacher made many uncomfortable; I close by looking at Arnauld and Leibniz's attack on Malebranche's use of it.

The final chapter discusses the most prominent early instance of concerns about teaching and responsibility being used to attack Descartes' work. This is the Utrecht Quarrel, introduced in Chapter 1. The focus here is particularly on Martin Schoock's *Admiranda methodus*, which is built around an attack on the effects of Cartesianism on communities, and particularly academic communities — on students, on universities, and on the civic order within which universities are embedded. Schoock took many of his terms of criticisms from Descartes' initial formulations of his concerns about teaching. He claimed that Descartes failed to prevent the abuses he feared, or to disown responsibility for them; more strongly, he claimed that Descartes tacitly encouraged such abuses as he sought to establish Cartesianism as a movement. This appropriation of Descartes' concerns about teaching was, in turn, taken up by Regius, Descartes' former disciple, who used Schoock's attacks on Descartes to frame his own decision to break with his former master.

The conclusion discusses three further directions for the topics discussed in the thesis, each to do with the historiography of Descartes' thought: one about the prehistory of Cartesianism, one about the ambiguities of Descartes' work and the effects of this on its reception, and one about the understanding of his achievement among early Cartesians.

Contents

Introduction 1

1 Forms for teaching: Descartes and textbooks 11

1.1 The scholastic textbook and authority 14

1.2 Descartes' textbook project 27

1.3 Descartes and his followers: the break with Regius 41

2 Teaching scepticism: Descartes on risk 49

2.1 The dangers of teaching scepticism 52

2.2 Descartes on risk, teaching, and responsibility 64

2.3 The publication of the *Discours* 76

3 The point of teaching: Descartes and Socrates 81

3.1 Classical questions about teaching: the *Meno* and its readers 84

3.2 Descartes on the point and possibility of teaching 94

3.3 An Augustinian reading of Descartes and its critics 108

4 Teaching Cartesianism: the Utrecht Quarrel 117

4.1 Regius, Voetius, and the university 120

4.2 Schoock on Cartesian communities 130

Conclusion 153

Bibliography 161

References and abbreviations

References are given in Chicago author-date style. Those beginning with AT refer to the Adam and Tannery edition of Descartes' work (Descartes 1974-83). For Descartes' correspondence with Regius, the text of Bos's edition is preferred (Descartes 2002). For Descartes' Latin, I have given the equivalent passage in the French edition where one exists; I have used Marion's translation of the *Regulæ* (Descartes 1977), and Verbeek's translation for material from the Utrecht Quarrel (Descartes and Schoock 1988); elsewhere, I have used the translation by Cottingham, Stoofhoff, and Murdoch, abbreviated CSM (Descartes 1985). For texts by other authors I have used standard English or French translations where these exist; where none is indicated, the translation is my own. In quotations from Montaigne, [A], [B], and [C] refer respectively to the 1580 text of the *Essais*, the additions of 1580-8, and the later manuscript additions. Except ampersands, sigla have been resolved. In French quotations, *i* has been distinguished from *j*, and *u* from *v*; Latin orthography follows the original texts.

Introduction

Learn their logic, but notice
How their subtlety betrays
A simple enormous grief;
Thus they shall teach you the ways
To doubt that you may believe.
W. H. Auden, 'Atlantis'

This thesis discusses Descartes' conception and negotiation, in the period from 1637 to 1648, of the responsibilities arising from teaching. My argument is twofold: that such responsibilities were a persistent and prominent concern through this crucial period in his career, and that they offered terms of criticism within which major early responses to his work, friendly and hostile, were formulated.

Descartes' conception of teaching, his attempts to write textbooks, and his relationships with students, professors, and schools throw light on his (sometimes imperfect) understanding of contemporary debates and institutions, and his attempts to navigate them; on the influence of existing texts and genres on his own formal choices; on Aristotelian features of his thought which provide continuity with existing curricula; on his occasional attempts to mask or adapt more radical aspects of his work; on his failure to produce a textbook which could be unproblematically adopted by the teaching institutions of his day; and on the challenges this failure set for those who tried to continue his project. The most sustained and comprehensive work on these questions has been done by Roger Ariew, principally in *Descartes and the First Cartesians*.[1] His aim in that book is threefold: to examine Descartes' attempt in the 1640s to write a textbook that could replace the Aristotelian commentaries used in the schools, to explain why, by the standards of the time, this project was a failure, and to survey the major attempts by early Cartesians like Du Roure, Le Grand, and Régis to write their own, more

[1] Ariew 2014.

successful, textbooks. Ariew has given us a far better idea of Descartes' negotiations with scholastic theories, texts, and institutions, and the forms taken by later attempts to build an institutionally acceptable Cartesianism. But he focuses overwhelmingly on the scholastic context for Descartes' work and, when he does examine Descartes directly, on the *Principia*; correspondingly, less time is spent on the development of Descartes' attitude towards education and towards the construction of teaching texts, or on relationships between these attitudes and other aspects of his thought. The claim underpinning this thesis is that, prior to 1640, Descartes already had a distinctive conception of teaching, motivated partly by concerns about teaching scepticism, and partly by concerns about maintaining the integrity of his project as the public presence of Cartesianism developed. If that is true, Ariew's discussion leaves unanswered a set of questions about continuities between Descartes' educational projects of the 1640s and the concerns about teaching present from his earliest work. When Descartes embarks on his textbook project, why does he depart from the autobiographical style which characterised his earlier books? Do the commitments and concerns which motivated his earlier formal choices survive this departure? Much of Descartes' early description of his research centres on his own autonomy, and his hesitations about publication, collaboration, or public debate; do these worries continue to affect him as Cartesianism begins to find a place, however contested, within the schools? Do Descartes' critics find anything distinctive about his conception of teaching, and does their criticism reflect this? In answering these questions, I aim to provide historians of ideas with an account of Descartes' engagement with teaching in the 1640s which is more closely integrated with concerns about teaching and dissemination insistently present in his earlier work, and of the consequences these had for the reception of his thought.

I put particular emphasis on Descartes' negotiation of the responsibilities which arise from teaching sceptical arguments. Why connect questions about education to questions about scepticism? A prominent modern strain of scepticism, which takes its cue from Hume, makes three central claims about sceptical arguments.[2] The first is that, if such arguments are right, they are disastrous; the second is that it is difficult, in ordinary life, to retain the conviction that they seem to compel theoretically; and the third is that they are easily available to those just beginning to do philosophy, and particularly to students. In Michael Williams' summary:

> Scepticism expresses a profound, though in normal circumstances incredible, truth about

[2]The major formulation of this position is Stroud 1984. For an overview of radical scepticism in the wake of Stroud's work, see Pritchard 2002.

> the human condition. The sceptic has made a catastrophic, though peculiarly unstable, discovery. […] But scepticism is not underwritten by arcane theoretical ideas. As soon as certain questions are raised, we are on the way to scepticism. Scepticism is the legacy of the attempt to philosophize. (M. Williams 1996, 9)

The idea that major sceptical arguments are particularly accessible is widely accepted: it is present, institutionally, in the prominent role such arguments play in introductory epistemology textbooks, readers, and courses.[3] Descartes is distinctively implicated in this institutional situation, because it is typically his arguments — the dream argument, the evil genius — which are offered to students; this finds its way into monographs on him, which may mention the author's own experience of such introductory classes, whether as student or teacher, and which often reflect the needs of a student readership.[4] It is widely accepted, too, that it is difficult (at the very least) to maintain scepticism in everyday life.[5] Whether or not sceptical arguments are catastrophic, though, is controversial. An alternative to the modern Humean view comes from Stanley Cavell, for whom such arguments are ultimately unintelligible; they simply *seem* to be awful discoveries to the philosophers who use them.[6] The instability of such discoveries shows up, Cavell says, in the institutional situation just described: it is unpredictable whether Descartes' dream argument, presented at the beginning of an epistemology course, will strike any of the students as deeply significant.[7] Cavell's claim about unintelligibility is in part a historical one, about the way scepticism arose as a topic for early modern philosophers like Descartes and Hume. This historical claim was opposed by Richard Rorty, who denied that scepticism so much as appeared catastrophic to someone like Descartes who 'thought of the sceptical consequences of the theory of ideas in the same way as the developers of a revolutionary scientific theory think of the "anomalies" (in Kuhn's sense) which the theory generates'.[8] Rorty, too, used a scene of

[3] For English-language texts, which often predominate even in teaching in continental Europe, see for instance Audi 2003, Chapter 10, Huemer 2002, Chapter 9 (the longest in the book), Nagel 2014, Chapter 2, Rescher 2003, Chapter 3, Steup, Turri, and Sosa 2014, Chapter 5, and Turri 2014, Chapters 1-11. For similar approaches in French, see Dutant 2010, 79-125, and Engel and Dutant 2005. For similar approaches in German, see Baumann 2015, 9-26, and Gabriel 2008, Chapter 1.

[4] For an example of a modern textbook on epistemology which starts from Descartes' arguments for doubt, see BonJour 2009, especially Chapter 2. For narratives about learning and teaching Descartes see, for instance, the prefaces to Almog 2002 and 2008. For monographs on Descartes explicitly structured by the needs of a student audience see, for instance, Carriero 2009, x.

[5] For a prominent discussion of the question of whether scepticism was liveable in the ancient world, see Burnyeat 1980b. For its application to modern varieties of scepticism see, for instance, M. Williams 1996, particularly Chapter 1. Both Burnyeat and Williams start from Hume; for the presence of the question within a largely distinct tradition see, for instance, Sartre 1943, 3.1.2 ('L'Éceuil du Solipsisme'), on whether solipsism can be lived.

[6] Cavell (1999) 1999, 217-21.

[7] Cavell (1999) 1999, 143-4.

[8] R. Rorty 1982, 180-1.

teaching, this time to give a satirical frame for claims about the seriousness of scepticism:

> The only people who go all existential about [sceptical arguments] […] are lecturers on epistemology who relieve the classroom tedium by hype. When such lecturers encounter an unstable freshman […] they hasten to join his more robust classmates in assuring him that it is all 'just philosophy'. (R. Rorty 1982, 181)

Both Cavell and Rorty understate the richness of early modern attitudes towards the significance of scepticism: Descartes does not represent these worries only in terms of personal catastrophe; nor does he see scepticism merely as a theoretical or pedagogical nuisance. Early modern scepticism risks domestication in these readings, as though the challenges faced by a student reading Descartes in Utrecht in 1640 were largely the same as those facing an undergraduate in Princeton in 1980. Yet when these modern debates about the accessibility and significance of scepticism draw naturally on images of education, they reproduce a grouping of topics well-established in the seventeenth century: questions of availability and education predominate in early modern discussions of the audience for scepticism. That is true for discussions of the varieties of scepticism inherited from ancient philosophy. In his biography of the English theologian Joseph Mede, John Worthington gave a richer, quite serious, version of the story parodied by Rorty:

> [N]ot long after his entrance into Philosophical studies he was for some time disquieted with *Scepticisme*, that troublesome and restless disease of the *Pyrrhonian* School of old. For lighting upon a Book in a neighbour-Scholar's Chamber […] he began upon the perusal of it to move strange Questions to himself, and even to doubt whether the τὸ Πᾶν, the whole Frame of things, as it appears to us, were any more than a mere Phantasm or Imagination. […] He was then but young, and therefore the more Capable of being abus'd by those perplex'd Notions by which *Pyrrho* had industriously studied to represent the *Habitation of Truth* as inaccessible […] (Mede 1664, ii)

Questions of availability and education predominate, too, in early modern treatments of more recent varieties of scepticism. In 1659, Henry More published *The Immortality of the Soul*, where he advocated the uptake of Cartesianism in the universities: 'I think it is the most sober and faithful advice that can be offered to the Christian World, that they would encourage the reading of Des-Cartes in all publick Schools or Universities'.[9] In the intervening years, More wrote his *Epistola ad V.C.*, where he qualified his enthusiasm for Descartes.[10] Worthington nonetheless rebuked him in November 1667 for the effects of his exposition of Descartes on students in Cambridge, and urged him to write a book which would repair the damage:

[9] More 1659, b7^{v}-b8^{r}.
[10] More 1664.

> I wish you would refresh and joy me with the news of your being about a Body of Natural Philosophy. I cannot but think you are about it, and if you will tell me so, I will keep it private — you have as highly commended Des Cartes, as is possible, and knowing no better method of Philosophy, you recommend it effectually in some parts of your books, whereby you had so fired some to the study of it, that your letter to V. C. (which came long after) could not coole them, nor doth it yet: but they are enravisht with it, and derive from thence notions of ill consequence to religion, you being sensible of this great evil, as also of the uncertainty of his Philosophy throughout (as you intimated to me) you cannot but think, how much it concerns you to remedy this evil. And seeing they will never return to the old Philosophy, in fashion when we were young scholars, there will be no way to take them off from idolizing the French Philosophy, and hurting themselves and others by some principles there, but by putting into their hands another Body of Natural Philosophy, which is like to be the most effectual antidote. (Worthington 1847-86, 2.2.254)

It is only once claims about the dangers of scepticism are embedded in a broad context — of the institutions of teaching and discipleship by which they are disseminated, of the different particular audiences which confront them, of the texts they compel in their turn — that we get a full sense of the richness, for early modern authors, of concerns about the availability of sceptical argument, and the moral and institutional issues they provoke. The central topic of Worthington's letter is responsibility: More's past responsibility for exposing the young to the consequences of scepticism, and his present obligation to now offer similarly seductive, anti-sceptical texts. Descartes himself had reasoned about his decision to make his sceptical arguments available in print in terms of responsibility, and had tried to forestall responses like Worthington's. As he explained to Mersenne, he had deliberately moderated the force of the arguments for doubt in the *Discours* out of worry that he might engage his readers 'dans un mauvais pas, sans peut-estre les en tirer'; the text itself expresses the fear that some readers may become 'esgarez' if they try to follow him (AT 1.350 and 6.15). Descartes tried to disavow responsibility for the damage his arguments might cause: 'Jamais mon dessein ne s'est estendu plus avant que […] de bastir dans un fons qui est tout a moy' (6.15). Doing so, he tried to head off the charge that he carelessly placed his readers and their communities in danger. He failed in this: when Worthington was writing, More had already starting work on more definitively anti-Cartesian texts, and his *Divine Dialogues* appeared the next year. More tried to offer a comprehensive alternative to Descartes' metaphysics a few years later in the *Enchiridion metaphysicum*.[11] The claim of this thesis is that early modern conceptions of the availability and seriousness of scepticism are best understood within such

[11] More 1664, 1668, and 1671. For more on More's turn against Descartes from after 1667, see Hall 2002, 159-61, and Gabbey 1982.

exchanges about responsibility in teaching.

I build on the reevaluation of Descartes and his contexts which has taken place over the last thirty years. Critics have sought to clarify Descartes' relationship with the scholastic philosophy (and, to a lesser degree, theology) in which he was trained and which was still dominant when he was writing, and with humanist scepticism and rhetorical theory.[12] This has come alongside a deepening understanding of the institutional and social worlds of teaching, reading, and publishing in France and the Netherlands during the period.[13] New work on Descartes in the history of ideas has typically been motivated by two tasks, each of which addresses longstanding misrepresentations of Descartes in the historiography.[14] The first is to challenge a portrait of him as a solitary thinker whose importance rests primarily on his method and metaphysics; the effect of this has been to highlight continuities between Descartes' work and that of his Aristotelian contemporaries, to emphasise his engagement with the debates and institutions of the time, and to draw new attention to his work in the sciences.[15] We can still tell a story of Descartes breaking with Aristotelianism on fundamental questions of physics and metaphysics.[16] But such narratives of discontinuity must now take into account the strategies and accommodations Descartes found to meet his circumstances and the forms and rhetoric he chose for his work, all of which raise questions about his basic commitments: it has become possible, for instance, to read Descartes' talk about souls as a reflection, not of his own views, but of his reluctant participation in scholastic debates.[17] The second task is to reach a better understanding of Cartesianism as it began to take shape during Descartes' lifetime and as it developed over the second half of the seventeenth century. It is no longer easy to defend a view on which Cartesians are defined by their adherence to a set of core positions: there is almost no part of Descartes' work, including those aspects of his method and metaphysics which now seem to us most characteristic, which those who claimed to fol-

[12]For Descartes' relationship with scholasticism see in particular Ariew 2011 and 2014, Rozemond 2002, Ruler 1995, and Schmaltz 2008. For theology, see Devillairs 2004 and Osler 2002. For the Renaissance, see Gaukroger 1995, 119-24, and Jones 2006, Chapter 2, and more generally Del Prete 2008a, Faye 1998 and 1999, Gregory 2000, and Paganini 2008a.

[13]For French higher education see Brockliss 1987, and for Descartes more specifically see Brockliss 1994 and 1995. For the Netherlands see Verbeek 1992 and Bunge 2001. In both cases, see Chapters 1 and 4 below. For publication, see Cavaillé 1991 and Schapira 2003, and more generally Viala 1985.

[14]See also the Conclusion below.

[15]See in particular Gaukroger, Schuster, and Sutton 2000 and Gaukroger 2002.

[16]See, for instance, Garber 2001 and Hattab 2009.

[17]Clarke 2003. For Descartes' strategies, see especially Cavaillé 1991 and Hallyn 2006, and for aspects of his rhetoric see, for instance, Carr 1990, Gaukroger 1995, Chapter 4, Mathieu-Castellani 2000, and the essays by Curley, Hatfield, and Garber in A. O. Rorty 1986. For dissimulation in the period more generally, see especially Cavaillé 2002 and Snyder 2009.

low him did not at some point discard.[18] The focus thus shifts to individual authors trying, often in distinctive ways, to maintain and adapt Descartes' project as they understand it; this diversity of individual responses to Descartes has led to major new work on neglected Cartesian authors like Arnauld, Clauberg, Regius, Régis, Desgabets, Conway, Astell, and Malebranche, as well as anti-Cartesians like Bourdin, Huet, and Voetius.[19]

The thesis centres on the decade which separates the publication of the *Discours* in 1637 from the publication of the *Notæ in programma quoddam* in 1648. The only text examined at length which falls outside this period is the *Recherche de la vérité*, which was probably written between 1628 and 1631, and which is indispensable for understanding Socratic aspects of Descartes' conception of teaching.[20] This approach excludes a number of major early texts, particularly *Le Monde* and the *Regulæ*, as well as Descartes' final book, *Les Passions de l'âme*. Such exclusions restrict the argument, but I hope they also clarify it, allowing us to focus on two strands of texts: those which track a shift in how Descartes thinks about education (the *Discours*, the *Méditations*, and the *Principia*), and those which track his response to his work's reception within a particular university context (the Latin edition of the *Principia*, the French edition, and the *Notæ*). My discussion is in four chapters. The first introduces a framework of texts, contexts, and concerns for the discussion that follows; the second and third explore the motivations for Descartes' conception of teaching and the way it shapes his texts and institutional engagements; the fourth examines the role this conception plays in the reception of Cartesianism. Within each chapter, I alternate between contextual discussions and close readings of Descartes' work, and particularly his paratexts, which contain the bulk of his remarks on reading and obligation. (The *Discours* itself is such a paratext, though of an unusual sort: a prefatory text typically published without the text it prefaces.) Contexts — historical, textual, and institutional — help us bring out the richness of early modern attitudes to teaching and scepticism which the approaches of both Cavell and Rorty miss; close reading helps us bring out the full range of ways in which Descartes' own concerns about teaching are voiced and connected.

Chapter 1 starts from a formal split in Descartes' work which occurs around 1641. This separates

[18] Schmaltz 2017, 9-11.

[19] For Arnauld, see Moreau 1999 and Nadler 1989. For Clauberg, see Savini 2011. For Regius, see Verbeek 1993a. For Régis and Desgabets, see Schmaltz 2002. For Conway, see Hutton 1994 and 2004. For Astell, see Broad 2015. For Malebranche, see Schmaltz 1996 and the works cited in Chapter 3. For Bourdin, see Ariew 1995 and Mullin 2000. For Huet, see Lennon 2008. For Voetius, see Ruler 1995. For broader studies on Cartesianism in the second half of the seventeenth century, see Bunge 2001, Clarke 1989, Rogers 2010, and Schmaltz 2002, and 2017.

[20] For this dating see Descartes 2013, 239-40. For an alternative see Gaukroger 1995, 362-4, who places it ten years later.

earlier texts like the *Discours* and the *Méditations*, in which the first-person singular is prominent, from later ones like the *Principia* and the *Passions*, where it is largely absent. The shift was motivated by Descartes' desire to produce books which could serve as teaching texts. But it does not mark the first moment in which concerns about teaching exert a formal influence on his writing. Versions of such concerns are prominent in his early work, where they are primarily of two sorts: concerns about the dangers which readers, and students more broadly, may face when engaging with his sceptical arguments, and concerns about the damage which clumsy followers may do to the edifice he has been constructing. These concerns about education were deemphasised in the first moments after the split; this is particularly visible in the first edition of the *Principia*. But, with the situation of Cartesianism changing in the 1640s as it faced both greater success and greater opposition, many of the problems Descartes was trying to anticipate and forestall came to be realised. Questions about Cartesianism's public career came back to haunt him as Regius provoked controversy in Utrecht, and new versions of his concerns were gradually rearticulated in later texts, particularly in the first French edition of the *Principia*.

In Chapter 2, I discuss the approach to teaching Descartes developed prior to 1641, particularly in the *Discours*. These concerns were inherited from a broader understanding of the dangers of scepticism in early modern Europe, where they arose particularly as questions about the vulnerability of the young. Across his career, Descartes took different positions on how serious such concerns were: in earlier texts he accepted the widespread view that they must be taken seriously; in later texts, he claimed the dangers of scepticism had passed, but argued that an analogous set of risks still operated within contemporary Aristotelianism. His acceptance of the widespread view meant that, especially in the *Discours*, his account of how his text should be read was developed alongside questions about his responsibilities in exposing his readers to such dangers. His description of the *Discours* as exemplary should be understood as a way of negotiating concerns about responsibility in teaching. Such concerns were operative, too, in his remarks about the publication of the *Discours*, both in the text itself and in his correspondence.

Chapter 3 takes up Descartes' claim that there is a parallel between the dangers of scepticism and those of scholasticism. The previous chapter focused on reasons of self-defence motivating Descartes' attitude towards teaching; I look here, by contrast, at his attempt to secure a particular way of thinking for his students, against pressures which exert themselves within Aristotelianism. These pressures show up as doubts about the worthwhileness of inquiry, particularly for beginners, and particularly as

a means of achieving happiness. Descartes echoes the Socratic claim that the teacher's role is to defend their students against such pressures, present most clearly in the *Meno* discussion of the possibility of teaching. In Descartes' work, this conception is most prominent in the *Recherche de la vérité*, but many of his characteristic moves in the *Discours* and the *Méditations* also express it: it is particularly present, I argue, in his view that education in philosophy is the acquisition of a skill. This conception gives a new way of understanding the sense in which Socrates served Descartes as a model. But this idea of the teacher made many uncomfortable; I close by looking at attacks by Arnauld and Leibniz on Malebranche's use of it.

The final chapter discusses the most prominent early instance of concerns about teaching and responsibility being used to attack Descartes' work. This is the Utrecht Quarrel, introduced in Chapter 1. The focus here is particularly on Martin Schoock's *Admiranda methodus*, which is built around an attack on the effects of Cartesianism on communities, and particularly academic communities — on students, on universities, and on the civic order within which universities are embedded. Schoock took many of his terms of criticisms from Descartes' initial formulations of his concerns about teaching. He claimed that Descartes failed to prevent the abuses he feared, or to disown responsibility for them; more strongly, he claimed that Descartes tacitly encouraged such abuses as he sought to establish Cartesianism as a movement. This appropriation of Descartes' concerns about teaching was, in turn, taken up by Regius, Descartes' former disciple, who used Schoock's attacks on Descartes to frame his own decision to break with his former master.

The conclusion discusses three further directions for the historiographical topics discussed in the thesis: one about the prehistory of Cartesianism, one about the ambiguities of Descartes' work and the effects of this on its reception, and one about the understanding of his achievement among early Cartesians.

1. Forms for teaching: Descartes and textbooks

Introduction: complicated buildings

Teaching texts in the sixteenth and early seventeenth centuries, in France and elsewhere in western Europe, are typically readings of Aristotle.[1] Within that single great regularity, however, they are strikingly diverse. A textbook could be an explanation of Aristotle's own text: that was the form most widespread in the Middle Ages, and it remained dominant in the early modern period. A textbook could, again, consist of questions on some part of Aristotle, less closely bound to the letter of the work. Or a textbook could take one of a number of forms aimed at reducing and reorganising Aristotle for the benefit of learners: paraphrases; compendiums and synopses which sketched out the contents of works, preserving little of the argumentation; *flores*, collections of excerpts; or *tabulæ*, dictionaries of Aristotelian terms. Monograph forms were available, too, setting out a particular reader's views on Aristotelianism, or some aspect of it. Books could incorporate several of these genres: the commentaries produced at Coimbra, for instance, alternate between explanation and questions. Such generic labels are, in any case, only very loose guides to what is going on in a text: explanations, for instance, could be conservative or could present the state of the art in humanist philology; they could, again, defend a new interpretation of Aristotle or simply offer a rough guide to previous writers. Such diversity was guaranteed, in part, by the sheer number of commentaries on Aristotle produced over the period. When Charles Lohr drew up a list of fifteenth-century Latin Aristotle commentaries, he found around 700 titles. When he repeated the same exercise for 1500-1650, he found around 6,500.[2] This surge in new writing existed alongside a growing corpus of older work: the medieval Latin and Ara-

[1] For a general account of the educational institutions of the period, see Ridder-Symoens 1996. The Aristotelian textbooks discussed here form only part of the mass of didactic work written in the period, which also includes, for instance, the later part of the mirror for princes tradition; for an idea of the range and quantity of this writing, see Buisson 1886. I base the discussion of genre in early modern Aristotelian writing on Lohr 1974, 230-2.

[2] Lohr 1974, 228. See also Blum 1988 and Kuhn 2014. Lohr's medieval commentary list is Lohr 1967-74. His Renaissance commentary list appeared in Lohr 1974, 1975, 1976b, 1977, 1978, 1979, 1980, and 1982.

bic commentaries were still in wide use, and the sixteenth century had made available a huge number of Greek ones, which particularly drove scholarship at Italian universities like Padua and Bologna.[3] Luther had wanted to do away with Aristotle in his educational reforms, but this proved unsustainable in practice.[4] Melanchthon, in any case, retained his enthusiasm for Aristotle, and produced a large body of formally innovative Aristotle commentary which was influential on later Catholic authors: as we will see below, his brief, reconstructive style anticipated Eustachius a Sancto Paulo's one-volume *Summa theologiæ quadripartita*. We will also see that, while Catholic writers were in general more conservative, the textbooks a student like Descartes encountered were deeply influenced by recent humanist work. These two phenomena — the continued usefulness of commentary form even for self-consciously modernising projects, and the openness of commentary writers to new currents of thought — mark the liveliness of early modern Aristotelianism. Recognition of this liveliness has only come relatively recently, with the work of historians like Lohr and Charles Schmitt.[5] This reevaluation of Aristotelianism has two strands. The first has focused on the vitality of humanism in the period, and on the deep continuities between humanist textual practices like commentary, on the one hand, and the development of the arts and natural sciences on the other.[6] The second insists on the vitality of Aristotelianism, particularly within the schools, and on scholastic texts as valuable pieces of early modern philosophy.[7] Both strands have had to work against a narrative of Aristotelian writing as dysfunctional and moribund, well established by the time Descartes started writing.[8] In the *Dialogo sopra i due massimi sistemi del mondo*, Galileo had described contemporary Aristotelianism as a defensive undertaking, devoted to shoring up a edifice collapsing under its own weight: the commentator was a labourer who 'fabbricò nobilissimo palazzo, e poi lo vegga per esser stato mal fondato minacciar rovina, e che per non vedere con tanto cordoglio disfatte le mura […] cerchi con catene, puntelli contrafforti, barbacani, e sorgozzoni di riparare alla rovina'.[9] The architectural metaphor was popular among modernisers. Descartes, too, pictured the sciences of his day as 'ouvrages composez de

[3] Bianchi 2007, 60.

[4] Schmitt 1988, 797.

[5] See in particular Schmitt 1983a.

[6] Anthony Grafton is particularly notable for his insistence on this point: see, for instance, Grafton 1991, 1996, and 2010. For important recent collections on Renaissance humanist commentary, see Enenkel and Nellen 2013 and Pade 2005, both of which focus on commentary on literary texts. Renaissance commentary has still received far less attention than its classical and medieval counterparts; see Edwards 2013, 522.

[7] Important statements of this view include Bianchi 2007, Edwards 2013, Maclean 1999, Mercer 1993, and Schmitt 1983a. A survey of this development in the historiography is given in Edwards 2007. There has been a particularly lively interest in this work on the part of critics proceeding from Descartes and trying to see more clearly the Aristotelian context for his thought: see, for instance, Ariew 2011 and Des Chene 2000.

[8] For more on this effort, see the introduction to Roux 2013.

[9] Galileo 1632, 49.

plusieurs pièces, & faits de la main de divers maistres'; in contrast, he described edifices like his own, begun from their foundations by a single architect, as 'plus beaux & mieux ordonnez' (AT 6.11).[10] This charge, that Aristotelianism was graceless and overwrought, was often extended with a moral point: scholastics were pedants, and their endless logic-chopping made them uncivil, incapable, in Milton's phrase, of 'perform[ing] justly, skilfully and magnanimously all the offices both private and publick of Peace and War'.[11] Writing at the end of the seventeenth century, the Cartesian critic Adrien Baillet described the change achieved by modernisers as a reform in practices of reading, abandoning commentary's reliance on existing texts:

> Le Préjugé où nous sommmes [sic] aujourd'huy veut que le siécle précedent ait été simplement un siécle d'érudition dans lequel on s'appliquoit particuliérement à la profonde lecture, à l'étude des Langues, & à la critique des Ecrits des Anciens plûtôt qu'à celle de leur esprit […]
>
> Ce même Préjugé veut au contraire que le siécle où nous vivons soit un siécle de delicatesse, où l'on tâche […] d'examiner ce que l'on doit recevoir ou rejetter des écrits & des exemples des Anciens, & de juger de la maniére dont on pourroit reformer ou perfectionner leurs vûës & leurs pensées, sans se borner à ce qu'ils ont inventé […] (Baillet 1685-6, 1.325)

In spite of the image of his work as a single edifice, Descartes' writing is formally diverse: we have brief journeyman pieces for Beeckman (the *Compendium musicæ* and the manuscripts on freefall and hydrostatics), autobiographical fragments (the *Olympica*), the draft of a collection of rules for inquiry (the *Regulæ*) and of a systematic account of the natural world (*Le Monde*, *L'Homme*); the *Discours de la méthode*, a heavily autobiographical text serving both as a postmortem of *Le Monde* and as a long preface to the *Essais*, didactic monographs designed as showcases for Descartes' achievements; the *Méditations*, six linked narratives about doing metaphysics, in the first person but with little autobiographical detail, supplemented with the *Objections et Réponses*; the *Principia*, a broad, systematic textbook of the natural sciences; and *Les Passions de l'âme*, which extended the *Principia* with an account of Cartesian anthropology. On formal grounds, it is appealing to split the work published in Descartes' lifetime into two parts: the *Discours* and the *Méditations*, which make extensive use of first-person forms, and, after 1641, the *Principia* and *Passions*, which more closely resemble contemporary textbooks in tone and structure. This formal shift corresponds to a change in Descartes' ambitions. It is motivated by

[10] The classic text on scholasticism and architecture is Panofsky 1951. For more on building metaphors in anti-Aristotelian writing see Edwards 2013, 519-22. For other early modern French authors describing and defending their texts in architectural terms, see for instance Cowling 1998, Kenny 1991, 203-9, and the texts cited in connection with Le Moyne's 'galerie' in Chapter 2 below.

[11] Quoted in Shapin 1991, 293; see more generally 287-95 on this point.

his desire to make his work more easily available for use in the professional academic and scientific world — and, in particular, to make it more easily available for use in schools and universities. But that is not to say that concerns about teaching are only formally significant for Descartes' writing after 1641. There is a distinctive, positive account in the *Discours* and the *Méditations* of how readers are supposed to learn from those texts, motivated in part by concerns about the risks posed to Descartes' readers by sceptical arguments. That account is muted in the first edition of the *Principia*. Related concerns recur, however, in response to Descartes' public break with his former disciple Regius, first in the French edition of the *Principia* and then in the *Notæ in programma quoddam*. Our later chapters will discuss in more detail Descartes' approach to education in his early work, and how this interacts with his institutional environment. The present chapter offers a frame for that discussion: a portrait of the institutional and textual concerns which shaped how Descartes thought about education; of his late attempt to conform more closely to the tradition he was raised in; and of the resurgence, following on this attempt, of a distinctively Cartesian set of concerns about teaching and learning.

The chapter proceeds as follows. In the first section, I present the educational background, both textual and institutional, in which Descartes was raised and in the context of which he formulated his own educational project. In the second, I discuss his own attempts to write a textbook, which begins with an abortive commentary on Eustachius's *Summa* and culminates in the *Principia*. In style and form, the *Principia* resembles contemporary textbooks. But it remains formally idiosyncratic; that can be seen by a comparison with both scholastic textbooks like the Conimbricenses, and anti-Aristotelian textbooks like Regius's *Fundamenta Physices*. In the third section, I discuss how some of the distinctive concerns of Descartes' early published work, initially written out of the *Principia*, recur in later editions of that work; this is motivated by the split with Regius.

1.1 The scholastic textbook and authority

It is not very common to come across early modern discussions of just *why* Aristotle was used to structure education so broadly. Melanchthon gave one in his 1536 oration 'De philosophia', where he makes no appeal to the truth of Aristotelianism. His point is, rather, about its usefulness: it proceeds in an orderly, consistent way, divides its different topics up sensibly and spends enough time on each of them, and does so with the methods of the philosopher rather than the orator.[12] For Melanchthon,

[12]The point is made in Kuhn 2014. For Melanchthon's text, see Melanchthon 1999.

Aristotle did not keep pride of place in European education because he was right, but because he provided a reasonably coherent and comprehensive structure for teaching philosophy, one which had already proved extraordinarily robust. That left room for a range of positions within Aristotelianism about the truth of Aristotle's work. Where Aristotelianism faced pressure in the early modern period, it was not simply on questions of whether or not Aristotle was right; it was also on questions of whether Aristotelian institutional and textual forms still offered a sensible structure within which to pursue inquiry. In the first part of this section, I look in more detail at what those forms were, particularly as Descartes would have encountered them in the texts which were in use at La Flèche. I then return at greater length to the complexity of Aristotle's position as an authority in this context.

1.1.1 The structure of Aristotelian education. In the Catholic world, many of the most important new teaching texts of the sixteenth and early seventeenth centuries came from the Jesuits.[13] Ignatius had called for a revival of Aristotelianism, and had chosen Aquinas's reading as his preferred interpretation.[14] Jesuits responded to that call over the course of the sixteenth century by producing a huge body of commentary which modernised and clarified the Society's reading of Aristotle. Much of this work was produced by individual authors working on some aspect of Aristotle's thought — Francesco Suárez's *Metaphysicarum disputationum*, for instance.[15] Others were produced by committee, and offered wider coverage of the Corpus Aristotelicum. The most important of these were the Conimbricenses, which were begun in the 1560s at the University of Coimbra by a team led by Pedro da Fonseca, and were crucial in the post-Tridentine effort to fortify Catholic Aristotle interpretation.[16] They were finally published between 1592 and 1606. The Conimbricenses were supposed to relieve Jesuit professors, first at Portuguese schools and then more widely, from the burden of producing their own teaching material, and to ensure consistency; ultimately, the commentaries came to speak for the Society as a whole.[17] These texts were not typically viewed as items of standalone value, and new commentaries tended to obliterate their predecessors.[18] They were tools, entirely subordinate to the system the Jesuits had created, which was based on the *modus parisiensis* Ignatius had encountered at

[13]For general accounts of Jesuit education in the period, see McGucken 1932, Mitchell 1981, and Scaglione 1986. For the French context, see Fouqueray 1910-25.

[14]For Ignatius's insistence on the importance of Aristotle, see Lohr 1976a. For his relationship with Aquinas, see Ariew 2014, 4-5.

[15]Suárez 1597.

[16]For an overview of the Coimbra commentary project, see Casalini 2016.

[17]Such standardised readings speaking for a particular order were unusual, but not unique. The other notable examples are the Complutenses, produced by the Carmelites. See Des Chene 2000, 42.

[18]Fazzo 2004, 5.

the University of Paris as a young man, and which emphasised close relationships between a master and his pupils, small class groups, and the use of disputation.[19] This last feature, in particular, was reflected in Jesuit commentaries, which continued to make heavy use of questions decades after other reform-minded Aristotelians like Melanchthon had jettisoned them as a medieval accretion.

Around the same time that the Coimbra commentators were standardising Jesuit Aristotle interpretation, efforts were underway to produce a uniform curriculum for Jesuit schools. That structure was laid out in detail by the *Ratio studiorum*, which was finalised in 1599. The *Ratio* described a curriculum for eight years of teaching, based loosely on the medieval *trivium* and *quadrivium*.[20] Table 1.1 shows the teaching texts explicitly mentioned in the *Ratio* as Descartes would have encountered them year by year.[21] The first five years of the course were built around the study of languages and rhetoric. Students would have been introduced to a broad range of classical and Patristic authors, but presented in a fragmentary, ahistorical, and frequently bowdlerised way: the *Ratio* was explicit that these texts were being studied for their style, and not for their content.[22] This insistence on rhetoric, and on Cicero in particular, would have been perfectly familiar to fifteenth- and early sixteenth-century writers on the curriculum like Bruni and Erasmus, and is one mark of humanist influences on the Jesuit project.[23] Nor were the Jesuits particularly old-fashioned in still using this sort of programme at the end of the sixteenth century: writing in the next century, Grotius would prescribe a similar set of subjects for a bright young man seeking political office.[24] The earlier parts of the curriculum fit within a humanist conception of the training a person needed to pursue a public career 'justly, skilfully and magnanimously', as Milton had said; the Jesuits were not breeding pedants.

The philosophy curriculum, by contrast, was less immediately practical, and in any case most students left at the end of the fifth year, as widespread hostility to the Jesuits in France meant that it was difficult for more advanced students in their colleges to gain admission to many universities.[25]

[19] Schmitt 1988, 798.

[20] For details of the curriculum at a school like La Flèche, see Brockliss 1987. For more on the intellectual character of the education it offered, see Lojacono 1999. For the history of Jesuit education in the period more broadly, see Codina Mir 1968, Compayré 1879, Dainville 1940 and 1978, Rochemonteix 1889, and Scaglione 1986.

[21] I have left out the classical and patristic readings which would have been used as rhetorical examples in early years. The *Ratio* gives these at length: see the rules for the teachers of lower classes.

[22] For more on this aspect of rhetoric teaching at the time, see Gaukroger 1995, 49, and more generally Fumaroli 1994a. I say more about the use Descartes makes of his rhetorical education in Chapter 3.

[23] This is using Kristeller's definition of humanists as those in the late medieval and early modern periods devoted to grammar, rhetoric, history, poetry, and moral philosophy. See Kristeller 1979. There are other ways of defining the movement: by their concern to write in classical Latin (Witt 2000), for instance, or by a shared philosophical interest in the search for wisdom (Celenza 2013, 375).

[24] Grafton 1996, 208.

[25] For the unpractical character of the philosophy course, see Reif 1969, 22-3. For hostility to the Jesuits, see

Year	Faculty	Class	Textbook	Notes
1606	Literature	Preparatory		
1607		Grammar	Alvarés, *Institutio*	Standard Latin teaching text (46).
1608				
1609				
1610		Rhetoric	*Rhetoric*	One of two compulsory texts for daily prelection. The other is Cicero's orations (375).
			Poetics	Optional text for daily prelection (375).
1611	Philosophy	Dialectic	*Topics*	Some material discussed in introduction to course (220).
			Sophistical Refutations	Some material discussed in introduction to course (220).
			On Interpretation	Whole text covered cursorily (218).
			Prior Analytics	Whole text covered cursorily. Start of book 1 omitted (218).
			Physics	Book 2 used for transition to natural philosophy (219).
			On the Soul	Book 2 used for transition to natural philosophy (219).
			Toletus, *Introductio*	Selected passages used (215).
			Fonseca, *Institutio*	Selected passages used (215).
1612		Natural philosophy	*Physics*	Whole text covered, focusing on books 1, 6, and 7 (221).
			On the Heavens	Whole text covered, with books 2-4 summarised or left for mathematics (222).
			On Generation	First book covered (221).
			Meteorology	Whole text covered at end of year (223).
			Euclid, *Elements*	Groundwork for mathematics course (239).
1613		Metaphysics, ethics	*Physics*	Remainder of material treated (221).
			On Generation	Second book covered (224).
			On the Soul	Whole text covered, medical material and opinions of ancients cursorily (224).
			Metaphysics	Whole text covered, focusing on preface and books 7-12, omitting theological material (224-5).
			Nicomachean Ethics	Groundwork for moral philosophy course (235).

Table 1.1: Texts by Aristotle and others used in Descartes' course at La Flèche. *Ratio* references are to the section numbering in Demoustier and Julia 1997.

Descartes was one of those who stayed. The remaining three years of the course were structured entirely around Aristotle. The first year of philosophy, which covered Aristotle's writing on logic, kept the greatest distance from the primary texts. Porphyry's *Isagoge* would have been used rather than the *Categories*, as would two recent introductory textbooks by Jesuits: Toletus's *Introductio in dialecticam* and Fonseca's *Institutio dialecticarum*.[26] The primary texts by Aristotle used — *On Interpretation*, the *Prior Analytics*, the *Topics*, and the *Sophistical Refutations* — were rearranged and treated only cursorily, and the *Posterior Analytics* was excluded completely. The texts for the remaining two years were treated more fully, and the *Ratio* does not list any textbooks to supplement them. With the exception of the *Parva naturalia*, which the course did not broach at all, Descartes would have received at least a rough introduction to every part of the corpus. Where portions of texts are excluded, it tended to be in order to ease the teaching of difficult material, like logic, or because Aristotle's disciplinary boundaries did not match up with the Jesuits': for instance, parts of the *Physics* are treated in the metaphysics course instead, and parts of *On the Soul* are reserved for later medical training. Where the *Ratio* is faced with problems arising from Aristotle's corpus, then, these typically have to do with ordering the thought so that it is properly available to those just beginning to do philosophy, and so that as much material as possible can be covered in time. There is only one point where the *Ratio* passes over material in Aristotle for doctrinal reasons: the metaphysics course should exclude Aristotle's discussion of God and different sorts of intelligence, because these are things that are known by revelation.[27]

The *Ratio* prescribes no textbooks for the later years of the philosophy course, but this is where Descartes would have encountered the Conimbricenses. He told Mersenne he was struck by how long they were, and was probably thinking of them when he wrote in the *Discours* against the enormous diversity of views at play in scholastic philosophy (AT 3.185 and 6.16). The first Coimbra commentary, on the *Physics*, gives a good example of the style.[28] Descartes would have used it heavily in the second year of the philosophy course. It came in two parts, which were sometimes bound together, totalling around 600 quarto pages. The organisation of the commentary is elaborate. Figure 1.1, from an edition printed in Lyon in 1602, shows the end of the text of *Physics* Book 1, Chapter 7, and the start of the first question on it. Aristotle's text is presented in two columns, with the Greek on the left and a Latin version on the right. The explanations below this are keyed to phrases in the Latin text, and contain some general references to other authors. References in the article at the bottom of the page are

Gaukroger 1995, 51-2, and Scaglione 1986, 89.

[26]Toledo 1561 and Fonseca 1564. For more on these texts, see Ashworth 1988, 163, and Ashworth 2008, 629.

[27]'Regulæ professoris philosophiæ', 11.2 (Demoustier and Julia 1997, §225).

[28]Fonseca 1591.

πρῶτον μὲν οὖν ἐλέχθη, ὅτι ἀρχαὶ τἀναντία μόνον. ὕστερον δ', ὅτι ἀναγκη̃ καὶ ἄλλό τι ὑποκεῖσθαι καὶ ἓν τρία· ὃ δὲ νῦν φανερὸν τίς ἡ διαφορὰ τῶν ἐναντίων, καὶ πῶς ἔχουσιν αἱ ἀρχαὶ πρὸς ἀλλήλας, καὶ τί τὸ ὑποκείμενον πότερον ὃ ὐσία τὸ εἶδος, ἢ τὸ ὑποκείμενον, ὕστερον δῆλον. ἀλλ' ὅτι αἱ ἀρχαὶ τρεῖς, καὶ πῶς τρεῖς, καὶ τίς ὁ τρόπος αὐτῶν, δῆλον. πόσαι μὲν οὖν καὶ τίνες εἰσὶν αἱ ἀρχαὶ, ἐκ τούτων θεωρείσθωσαν.

Primum quidem illud diximus, contraria ſola eſſe principia, deinde illud, neceſſarium eſſe aliud quiddam ſubijci, & eſſe tria. Ex his verò, quæ nunc tradidimus, manifeſtum eſt, quæ contrariorum ſit differentia, & quemadmodum principia inter ſe affecta ſint, & quid eſt ſubiectum. Sed vtrum forma eſſentia ſit, an ſubiectum nondum conſtat. Id verò perſpicuum eſt, principia tria eſſe, & quemadmodum tria, quiſve eorum ſit modus. Quot ergo, & quæ ſint principia, ex his diſpiciatur.

l *Quæ autem ſubijcitur*] Materiæ naturam & conditionem explicat, ducta ſimilitudine à rebus arte factis: nec abs re. Nam cùm ars naturæ æmula ſit, facilè erit ex ijs, quæ arte fiunt, in Phyſicarum rerum cognitionem venire. Aſſerit ergo, materiam eſſe puram potentiam; quia vt ſe habet arte factorum materia ad formas, quæ per artem inducuntur; ſic proportionè quadam materia rerum Phyſicarum, ad eſſentiam & hoc quiddam atque ens; hoc eſt, ad formas naturales, in quibus eſſentia, & quidditas rerum potiſſimùm conſiſtit. Quare ſicuti arte factorum materia, vt lignum & æs, nullam artificialem formam: ita materia rerum Phyſicarum nullam formam naturalem in ſua eſſentia cohibet. Ex quo ſequitur, hanc eſſe puram potentiam. Eſt autem hic locus deſumptus ex Platonis Timæo, vbi Plato de materia diſſerens; Tertium, inquit, genus locus eſt, qui interit quidem nunquam, ſed omnibus quæ gignuntur, ſedem exhiberet, qui abſque vllo ſenſu tangitur, & adulterina quadam ratione comprehendi vix poteſt.

m *Nam igitur*] In ſummam colligit ea, quæ hactenus de numero, & contrarietate principiorum diſputauit, addítque, nondum planè ex dictis conſtare, ſit-ne materia magis ſubſtãtia, quàm forma: an contrà. Quam tamen controuerſiam in præſenti non dirimit; vel quia illius explicatio, vt ait Themiſtius, non ad Phyſicum, ſed ad primum Philoſophum ſpectat; vel potiùs, quia, vt ſentiunt D. Thomas, & Auerroës, eam in ſequentem librum reijcit, vbi formam materiæ præferendam ſtatuet, docebítque formam non ſolùm eſſe naturam, ſed multò magis, quàm materiam; quod hunc in modum oſtendit. Id eſt: magis natura, per quod ens naturale actu eſt: atqui ens naturale actu eſt per formam, non autem per materiam; quia forma eſt actus & perfectio, materia verò eſt pura potentia; ergo, &c. Item quia, vt nihil artificioſum eſt, niſi quod artis formam actu habet: ita nihil naturale erit, niſi formam naturalem actu poſſideat. Quo patet, quidditatem rei naturalis potiſſimùm in forma conſiſtere.

QVÆSTIO I.

SINT-NE TRIA PRINCIPIA RERVM NATVRALIVM, AN NON?

ARTICVLVS I.

EORVM SENTENTIA, qui omnia vnum eſſe crediderunt.

QVanta fuerit de rerum Phyſic. principijs apud veteres Philoſophos diſſenſio refert Ariſtot. cap. 2. huius lib. & in primo Metaphyſicorum à cap. 3. alijſq; in locis: Item Hippocrates in libro de natura humana: Plato in Theæteto & Sophiſta: Theophraſtus 3. c. ſuæ Metaphyſicæ (ſi eius eſt illud opus) Plotinus lib. 9. Enneadis ſecundæ: & ex ſacris doctoribus Iuſtinus martyr, in ſua paræneſi ad gentes, D. Epiphanius lib. 3. aduerſus hæreſes, tomo 2. D. Irenæus lib. 2. aduerſus hæreſes c. 19. D. Clemens lib. 8. recognitionum, alijque nonnulli. Erit autem operæ pretium, eiuſmodi placita breuiter comprehenſa ſub vno aſpectu ponere. Atque vt ab illis auſpicemur, qui, ſi verbo teneantur, in tradendis principijs à veritate longiùs defluere, nec tam ea ponere, quàm tollere viſi ſunt.

Xenophanes Colophonius, Archelai, vt quidam aiunt, ſeu Botonis Athenienſis auditor: & Parmenides Eleates, qui Xenophani operam dedit, teſte Ariſtotele 1. Metaph. cap. 5. & Clemente Alexandrino lib. 1. Stromatum: itémque diſcipulus Parmenidis, Meliſſus Samius, omnia vnum eſſe aſſeruerunt; licet nonnihil inter eos fuerit diſcriminis. Nam Xenophanes, vt ſcripſit Ariſtoteles in libello de Xenophane, Zenone, & Gorgia, vnum illud ens infinitum eſſe aiebat, ſimilitérque Meliſſus; Parmenides verò finitum; etſi alij aliud de eis prodiderint.

Quoniam autem huiuſmodi placita, ſi ex eo, quem præ ſe ferunt, ſenſu æſtimentur, non tam diſſidentium Philoſophorum dogmata, quàm dormientium ſomnia eſſe videntur: iccirco Ariſtoteles ipſe, eſto ea hoc libro acerbè inſectatus fuerit; in libello tamen proximè citato, aliiſque in locis, eadem mitius inter-

Figure 1.1: The layout of the Coimbra *Physics* commentary: original text in Greek and Latin, explanations, and questions (Fonseca 1602). Photo: Google Books/UCLA.

denser and more precise, and are mostly to Platonic and Patristic sources (the *Theaetetus*, the *Sophist*, the *Enneads*; Justin Martyr, Irenaeus of Antioch, Clement of Alexandria). The text of the commentary as a whole is long, but individual pieces of prose within it are brief and clear: the seven articles in Book 1, Chapter 7, Question 1, for instance, each take up just over two columns of text, or just under 2,000 words. As with the *Ratio* curriculum, there are continuities with the Middle Ages here, but with humanist influences decidedly in evidence: the Latin translation used was probably that of John Argyropolous, a key figure in the fifteenth-century humanist revival of Greek, and the Latin is plain and sometimes elegant; it is certainly purged of the medieval scholastic 'barbarities' which the humanists railed against.[29] We get a clear sense from the text of Aristotle's role as an organising presence, offering a viable order of exposition and the opportunity, within the explanations and questions, to branch off into the full range of other authors. The charge on the part of new philosophers like Descartes and Bacon, of course, was that Aristotle was a far more noxious presence in a text like this *Physics* commentary: an unquestioned authority whose scholastic disciples either did not care about questions of truth or took them to be settled by discovering Aristotle's opinion on the matter.

1.1.2 The complexity of Aristotle's position. Descartes never took much care to distinguish between scholastic Aristotelians and humanist ones. This obscured the fact that attacks on scholasticism similar to his own were available to authors who stayed within the confines of Aristotelianism. A debate about the compatibility of *libertas philosophandi* with Aristotelianism had been present within scholasticism since at least the thirteenth century, and a critique of the scholastic approach to authority very close to Descartes' own had been formulated within humanism in the fourteenth century in Petrarch's work.[30] Humanists and scholastics alike claimed independence from Aristotle, with varying degrees of plausibility. In the *Summa*, Aquinas described arguments from authority as providing, within the secular sphere, some of the weakest sorts of reason.[31] By contrast, divine authority provided incomparably strong reasons: when commentators seemed to take Aristotle as an unquestionable authority, then, they were often accused of 'deifying' Aristotle.[32] It was conventional for textbook authors to provide declarations of their indifference to worldly authority. The Conimbricenses include such declarations.[33] Sometimes these were merely conventional, and conveyed little that was intellectually

[29]For the use of Argyropolous's translation, see Martins 2006, 110. On the clarity of the Latin used in the Conimbricenses see Des Chene 2000.
[30]For *libertas philosophandi*, see Maclean 2006, 264. For Petrarch, see Hankins 2007a, 39-45.
[31]Aquinas 1964-81, 1a 1.8.
[32]Bianchi 2007, 63.
[33]Des Chene 2000, 42.

distinctive.[34] But the very terms in which Aristotelians were attacked for their deference to authority were sometimes borrowed from them: the adage that Aristotle was only human and could err, often used in such attacks, was formulated by Aristotelians at least as early as Albert the Great.[35] The rhetoric of independence from authority (whether medieval or classical) on the part of anti-scholastics, both among the humanists and the new scientists, was often deployed with a certain amount of bad faith.[36] Gerolamo Cardano, for instance, consistently presented himself as a partisan of first-hand experience of the natural world over the say-so of authorities, but typically ended up producing commentaries which relied heavily on information drawn from books and hearsay.[37] To confuse matters further, there could exist substantial unclarity about just what it meant to treat some ancient author as an authority. When Cardano discussed Galen, for instance, he seemed unsure whether he was dealing with an ancient authority, or merely a commentator who had falsified Hippocrates.[38]

What sort of tensions around Aristotle's authority would have been visible within the texts Descartes studied? What latitude did textbook authors have to diverge from Aristotle, and what did it look like when they did? The rest of this section looks at three ways in which nominally Aristotelian texts distinguished themselves from each other on questions of authority: by raising concerns about particular readings of Aristotle; by raising concerns about Aristotle himself; and by raising concerns about the commentary form.

The Aristotelian tradition's reliance on a central, putatively single-author corpus extended by commentary was crucial to the shape debate within it took. Particularly after the fifteenth century, it was common to define a position on a question by citing both a text by Aristotle and an ancient commentator; it was typically not Aristotle's plausibility that was in play in debates between these, but that of particular schools of interpretation.[39] The most important of these debates within European Aristotle commentary from the Middle Ages onwards was between Thomists and Scotists on questions of metaphysics: most importantly, Thomists asserted that being is not predicated in the same way of God and of creatures, and consequently that we can understand divine being only by analogy, while Scotists held that the concept of being does in fact hold univocally between God and creatures, rather than

[34] Reif 1969, 30-2.
[35] Bianchi 2007, 63; see also Bianchi 2003, 101-32.
[36] For a good general discussion, see Hankins 2007a.
[37] Grafton 1999, 162. See also Giacomotto-Charra 2011, 55, and more generally Siraisi 1997.
[38] Giacomotto-Charra 2011, 55-6.
[39] See Fazzo 2004, 4, and Schmutz 2002, 3. For a concrete example see Celenza 2013, 396-7, on Ficino's reading of *On the Soul*, which makes later translators and commentators responsible for any apparent errors in that work. See Bianchi 2007 for a more general account of the shape of debate within such a tradition.

just by analogy. From this there followed substantial disagreements on the theory of distinctions, the principle of individuation for corporeal beings, and the composition of human beings.[40] The groups most bitterly opposed in this debate were Aquinas and Scotus's respective orders, the Dominicans and the Franciscans. Thomism met with substantial institutional successes in the sixteenth century: Aquinas was made a Doctor of the Church in 1567, and a major new edition of his work was published in Rome in 1570-1. In response to this, Scotism itself underwent a resurgence.[41] Ignatius had endorsed Aquinas's reading of Aristotle, and the *Ratio* instructed professors to maintain a broad Thomism in their teaching. At the same time, however, it offered substantial leeway. Teachers could discuss the highly controversial interpretations of the Alexandrians and Averroists, although they were not to come down in favour of them, and were allowed to differ from Aquinas on individual points.[42] As Claude Aquaviva, the General of the order, wrote to his Provincials in 1586 in a letter titled *De ratione studiorum vitandisque novis opinionibus* ('On the manner of teaching, and new opinions which are to be avoided'):

> Etsi non judicamus prohibendum esse quominus in scholasticâ theologiâ cum alii auctores probabiliora et magis recepta, quam D. Thomas, docent, ea nostris docere liceat, tamen propter ejus auctoritatem et securiorem ac magis approbatam doctrinam, quam Constitutiones commendant, illud omnino servandum erit ut eum *ordinariè* sequantur.
>
> Sans doute nous ne jugeons pas qu'on doive interdire aux Nôtres, dans l'enseignement de la théologie scholastique, les opinions des autres auteurs quand elles sont plus probables et plus communément reçues que celles de saint Thomas : pourtant, son autorité, sa doctrine si sûre et plus généralement approuvée, les recommandations de nos Constitutions nous font un rigoureux devoir de le suivre *ordinairement*. (Quoted in Rochemonteix 1889, 4.11-13)

Such flexibility was typical of the Jesuits, and made them an important vector for the spread of early modern Scotism. Many of their highest-profile authors, like Suárez and Vázquez, expressed admiration for Scotus.[43] In any case, while there were many Thomists and Scotists in the period who explicitly identified themselves as such, the majority of working theologians and philosophers did not give themselves any such label, and were consequently freer to move between interpretations.[44] The frequent sympathy for Scotus encountered among the Jesuits went along with their generally good institutional relationships with the Franciscans in the period. Ultimately, Scotus was successful enough

[40] See Ariew 2014, 7-10 and 100-3.
[41] See the account in Schmutz 2002.
[42] 'Regulæ professoris philosophiæ', 5-6 (Demoustier and Julia 1997, §§211-12).
[43] Schmutz 2002, 12; see also Ariew 2014, 4-5.
[44] See Ariew 2014, 6, for the interpretive problems this can create.

in the seventeenth century that it was his theology, rather than Aquinas's, which provided the norm for the period.[45]

A second set of differences turned on just how appropriate Aristotle's exalted position in European intellectual life actually was. There had long been a current of anti-Aristotelian thought operating within the commentary tradition, dating back at least to John Philoponus, who broke with Aristotle on substantial points in metaphysics and natural philosophy, defending the theory of impetus, the possibility of motion in a vacuum, and the infinite divisibility of space, time, and motion.[46] Prominent criticisms of Aristotle came, within the medieval schools, from authors like John Buridan and his student Nicole Oresme, whose *Livre du ciel et du monde* gave a hostile commentary on Aristotle's physics which was distinctive for the time.[47] By the early modern period, at least three pressures complicated efforts to write texts which relied primarily on Aristotle: dissatisfaction with the content of Aristotle's work; doubts, even among those who were in general in agreement with Aristotle, about whether his work was fit for the structural place accorded it within the curriculum; and a growing recognition that there was much Aristotle had left untreated.[48] I go through these in order.

The most important, and longest standing, question on the content of Aristotelianism was about whether his work could be reconciled with Christian orthodoxy. The sense of a divide here became more acute over the course of the Renaissance as the independence of philosophy from theology increased. That independence was visible in the curriculum described by the *Ratio*, where philosophy was treated to a large degree as a standalone discipline, rather than playing the purely ancillary role Aquinas had assigned it to.[49] But there were limits to the autonomy the *Ratio* was willing to grant philosophy. Universities blossomed over the period and, particularly in Italy, this led to larger arts faculties employing prominent humanists, like Nifo and Pomponazzi, who developed more naturalised readings of Aristotle. Northern writers often discussed this Italian humanist reading in terms of a coherent, heterodox Aristotelianism. As we have already seen, the *Ratio* explicitly registers a concern about this supposedly unified movement: Averroist or Alexandrist positions — that is, those represented most prominently by the Paduan and Bolognan humanists — are the only ones which professors are expressly barred from taking up.[50] Questions about the orthodoxy of naturalised read-

[45] Schmutz 2002, 13.

[46] Fazzo 2004, 14, and Philoponus 1994, vii-viii. For Philoponus more generally, see Sorabji 2010.

[47] On medieval criticism of Aristotle, see Menn 1998b, 38-41. For Buridan and his school, including Oresme, see the presentation in Duhem 1913-59.

[48] For this enumeration, see Schmitt 1988, 793.

[49] At *Summa theologiæ*, 1a 1.5c, for instance.

[50] 'Regulæ professoris philosophiæ', 4-5 (Demoustier and Julia 1997, §§210-11).

ings typically centred on two Aristotelian theses, that the world was eternal and that the personal soul was not immortal, both of which were irreconcilable with Christian eschatology. But, in raising these questions, critics of this Italian humanism overstated the unity of the naturalised Aristotelianism they opposed: rather than being characterised by a particular set of theses, the Italian authors were as much bound together by a conception of natural philosophy as wholly independent of theology.[51] This push for disciplinary independence was accompanied, furthermore, by a growing insistence that the study of philosophy and the study of Aristotle should no longer be taken as coextensive: as Crisostomo Javelli wrote in his *Tractatus de animæ humanæ indeficientia*, 'philosophia Arist[otelis] & philosophia ut philosophia non convertuntur' ('the philosophy of Aristotle and philosophy proper no longer coincide').[52] Eclecticism, in which Aristotle was just one philosophical authority among many, flourished in the fifteenth and sixteenth centuries. Renaissance Aristotelianism was a broad (or incoherent) enough church that such eclectic work, which included currents actively hostile to Aristotle, could still find a major place within bibliographies of Aristotelian literature compiled in the period.[53] Well into the seventeenth century, authors like Magirus used eclecticism as one of the primary means of expressing dissatisfaction with Aristotle as sole authority.[54] By later in the century, Descartes and Gassendi had themselves become part of this mix of authorities: in 1678, for instance, Pierre de Villemandy published a *Manuductio ad philosophiæ Aristoteleæ, Epicureæ, et Cartesianæ*.[55]

We saw already that the *Ratio* sometimes had to manhandle Aristotle's texts to fit them to a modernised curriculum. Such problems were commonly encountered by teachers and textbook writers trying to work with his texts. There were two sorts of problem here. In the case of logic and physics, commentators were faced with a large body of texts which had to be arranged into some sort of coherent, comprehensive whole.[56] In logic those were the six books of the *Organon*, and commentators had the additional task of trying to make their presentation of these thorny texts as easy as possible, because logic was taught right at the outset of the traditional curriculum. Handbooks like Toletus's and Fonseca's were reconstructions produced in response to such pressures; they were Aristotelian, but stood at a great remove from Aristotle's own texts. Natural philosophy had even more primary

[51] Hankins 2007a, 37-9.

[52] Javelli 1536, 41^{v}. See Bianchi 2007, 62. For more on Javelli in general, see Spruit 1995, 2.124-8.

[53] On eclecticism, see Schmitt 1983a, 111-12. For Aristotelian bibliographies, see Bianchi 1990, 2003, and 2007, 62, and Lohr 1981.

[54] Schmitt 1988, 804. For more on Magirus in connection with questions of commentary, see Edwards 2013, 526-32.

[55] Villemandy 1678. See Piaia 2015, 10, and also Piaia 1993, 50.

[56] See Ariew 2014, 43-8 on logic and 71-3 on natural philosophy.

texts to deal with, including a number of pseudo-Aristotelian ones like *De mundo*, the *Problemata*, the *Mechanica*, and the *Physiognomia*.[57] There was a different sort of problem in the case of ethics and metaphysics, where commentators had to deal with single texts whose internal structure was controversial. It is striking that the Coimbrans never produced a metaphysics commentary, although Fonseca did independently produce a *Commentaria in libros Metaphysicorum Aristotelis*, covering books A-E, which appeared in Rome between 1577 and 1589.[58] Those who did try produced a huge diversity of schemas for organising the discipline.[59] There was, moreover, some incentive for authors to restructure their material so far as the curriculum allowed: where a conservative intellectual climate, particularly in France, allowed relatively little room for originality in content, novelty of organisation provided an important dimension along which ambitious authors could distinguish themselves.[60] It is in that climate, for instance, that Scipion Dupleix's formally innovative vernacular *Corps de philosophie* appeared, which, among numerous changes, did away with the question format.[61]

These internal pressures raised questions about the coherence of the corpus and its viability as a basis for teaching. There were heavy external pressures acting on the tradition, too. Aristotelian writers were well aware they had to respond to new developments in the sciences if they were to be taken seriously. Receptiveness to these differed enormously depending on the area of study. In commentaries on cosmology, for instance, writers were often willing to discuss the new Copernican model, and in many cases were willing to accept it, not as true, but as a useful predictive model.[62] Later introductory textbooks like Bourdin's *Cours de mathématique* were clear about the pragmatic nature of such hypothetical explanations.[63] Bourdin wrote:

> [L]es Astronomes se servent de diverses façons de ranger & disposer le Monde, & chacun fait sa supposition, ou selon qu'il la juge estre plus facile, ou suivant les nouvelles remarques qu'il aura fait, ne cherchant tous en cela autre chose, que la commodité d'expliquer ce qui paroist dans le Monde. (Bourdin 1661, 124)

Similarly, it is possible to find sympathetic mentions in early seventeenth century textbooks of new

[57] For the natural philosophy corpus used in the Renaissance, including pseudepigrapha, see Grendler 2002, Chapter 8. For pseudo-Aristotle prior to the Renaissance, see Schmitt and Knox 1985. For particular texts, see Kraye 1990 on *De mundo*; Monfasani 1999 on the *Problemata*; Gabbey 1993, Laird 1986, and Rose and Drake 1971 on the *Mechanica*; and Grendler 2002, 270, on the *Physiognomia*.

[58] Fonseca 1577 and 1589; see further Schmutz 2008a.

[59] See Ariew 2014, 57-62 on ethics and 92-9 on metaphysics.

[60] Reif 1969, 28-9.

[61] Dupleix 1623. See Ariew 2014, 45.

[62] Reif 1969, 24-5, and in particular her example from Bartholin.

[63] For more on Bourdin's text, see Ariew 2003, 172. For the language of 'supposition' and 'hypothèse' within seventeenth century physics, see Roux 1998, particularly 229-42. For more on Bourdin's textbooks, and for Descartes' use of hypotheses, see Chapter 4 below.

observations on phenomena like comets, and the new stars which could be seen with telescopes. But the broader consequences of these observations were often not worked out in detail; it was only over the course of the seventeenth century, for instance, that some scholastics began to abandon the Aristotelian theory of the incorruptibility of the spheres.[64] Aristotelian writers on physics could sometimes go to great lengths to address new developments: Niccolò Cabeo, for instance, a Jesuit natural philosopher and commentator who published a *Philosophia magnetica* in 1629, attempted to incorporate new observations on magnetism into Aristotelianism.[65] By contrast, with the exception of individual authors like Suárez, discussions in metaphysics showed far fewer new ideas, despite much innovation in the ordering of the subject.[66]

It is difficult to separate concerns about the viability of Aristotle's texts from worries about the usefulness or sustainability of the commentary form more broadly, and this is the third way in which Aristotelian texts differed with each other on questions of authority. To some extent, that form was a victim of its own remarkable success in the Renaissance. The wealth of material produced overburdened commentary and destabilised Aristotle's central position. The development of zoology across the sixteenth century gives a particularly clear illustration of this.[67] North Italian humanist authors early in the century exploring Aristotle's natural philosophy found that there was no real commentary tradition for *De animalibus*, and that the study of zoology had been badly neglected in preceding centuries. They were therefore faced with a pair of tasks which were, at the outset, effectively coextensive: to give a commentary on Aristotle's work, and to develop a modernised version of the discipline. The authors who took up this project, including Nifo and Pomponazzi, often appealed to experience over textual authority, but this was largely wishful thinking, and their texts remained largely dependent on existing authorities. The books they produced made huge philological gains in understanding Aristotle's texts, and contained elaborate lists of authorities and glosses. But this sheer profusion of material had a twin effect: it undermined the idea that Aristotle's texts could give a clear structure for organising and presenting the quantity of knowledge at play in a discipline like zoology, and it overburdened commentaries with such a mass of information that the genre became increasingly cumbersome. These unwieldy commentaries were frustrating for readers interested in zoology, rather than in texts about zoology; the interests of such readers were better served by forms which

[64]Grant 1987, 341 and Reif 1969, 25. See more generally Grant 1991.
[65]See Bianchi 2007, 63, Pumfrey 1990, and Dear 1995, Chapter 3.
[66]Ariew 2014, 92-105.
[67]See Perfetti 2000, on which I base the discussion in this paragraph, and also Perfetti 2002. For another account of the effect of 'information overload' on biology and zoology in the period, see Ogilvie 2003.

were either shorter, like the monograph, or more clearly organised, like the encyclopaedia, and it was their interests which spurred the development of these nascent genres.[68] Later scientific genres grew out of problems first formulated within the commentary tradition, and particularly out of frustration with an understanding of inquiry as a primarily textual practice.[69]

One of the most visible outworkings of this mass of issues was the production of relatively brief manuals which radically condensed the scholastic curriculum, severing it entirely from Aristotle's texts and, as a consequence, dramatically reducing his visibility as an authority. The first steps towards this were taken by authors like the English Catholic John Case.[70] The most influential text for Descartes' own work, however, was the 1609 *Summa* of Eustachius a Sancto Paulo, a Feuillant monk teaching in Paris. In about a thousand octavo pages, Eustachius convincingly covered the whole philosophy course.[71] (Recall that the Coimbrans had taken around 600 quarto pages to cover the *Physics* alone.) Eustachius stripped out Aristotle's primary texts, and shortened and simplified the traditional presentation of the material. His discussion of logic was in three parts, down from the usual six required if one gave each text in the *Organon* its own part.[72] His treatment of ethics and physics were similarly shortened, and he gave only a brief discussion of metaphysics.[73] Eustachius was not bound to Thomism as Jesuit textbook authors (nominally) were and, like many Parisian professors, he tended to take a Scotist line: he accepted, for instance, the Scotist position that we can form the concept of God's essence, against the Thomist position that such knowledge is available only analogically.[74] The *Summa* was enough of a success that, late in the century, Leibniz was still recommending it as a model for how a teaching text ought to be constructed.[75]

1.2 Descartes' textbook project

Eustachius's condensed textbook was successful enough, indeed, that even Descartes knew about it. Vaguely, to begin with: he wrote to Mersenne in September 1640 that he was reacquainting himself with scholastic thought, and recalled hearing about 'un Chartreux ou Feuillant' who had written 'un

[68] Perfetti 2002, 442.
[69] Johns 1991, 6, and Gaukroger 2006.
[70] See Bianchi 2007, 61, and Schmitt 1983b and 1985, 56-72.
[71] For more on the content of Eustachius's *Summa*, see Ariew 2014, Chapter 2.
[72] Ariew 2014, 46.
[73] For these topics see Ariew 2014, 60, 73, and 96, respectively.
[74] Ariew 2011, 84-6. Ariew's point is made against Gilson, whose *Index scolastico-cartésien* (Gilson 1979) treated Eustachius as a Thomist: see Ariew 2011, 4 and 96.
[75] Ariew 2014, 42.

abrégé de toute la Philosophie de l'École' (AT 3.185). The idea of a good, short book on modern scholasticism appealed to him: 'cela m'espargneroit le tems de lire [les] gros livres' of '[les] Conimbres, Toletus & Rubius'. The following month, Descartes wrote to say that he had bought Eustachius's *Summa*, and considered it the best of its kind (231-2). He had not read any scholastic textbooks like this in twenty years, if he is to be believed, and this second exposure, unlike the one he received at La Flèche, was more Scotist than Thomist. (Not that Descartes always noticed, or cared about, such differences: there is evidence of him taking Thomist theses to be widespread when they had, in fact, long been eclipsed by their Scotist counterparts.)[76] By that December he was planning to present a *cursus* of his own thought, in the form of a systematic commentary on Eustachius's book. The project was abortive, but it marked an important shift in Descartes' writing.[77] He had become aware of the need both to provide a compact, comprehensive, and authoritative statement of his thought, and to give a shape to his work which would allow it easier acceptance into schools and universities. The Eustachius commentary was the first iteration of his attempt to produce a textbook version of his work, one that would culminate in the *Principia*.

This section discusses this change in Descartes' formal choices. In the first part, I look at what Descartes' Eustachius commentary might have looked like, based on analogous contemporary projects. In the second part, I track the development of two later works which follow the Eustachius project: the *Principia* and the *Specimina*. A comparison between these texts and his earlier ones helps us to gauge how far Descartes' way of presenting his work shifted as he moved into the 1640s. A second fruitful comparison is with the *Fundamenta physices*, a contemporary attempt by Regius, one of Descartes' early disciples, to produce a Cartesian textbook. The comparison with Regius reveals the limits of Descartes' adherence to existing textbook models.

1.2.1 The Eustachius project. In his December 1640 letter to Mersenne, Descartes sketched out the form the book would take, and explained his reasons for choosing it:

> [J]e vous diray, entre nous, que je commence à […] faire un Abregé [i.e. of his philosophy], où je mettray tout le Cours par ordre, pour le faire imprimer avec un Abregé de la Philosophie de l'Ecole, tel que celuy du F[rère] Eust[ache], sur lequel j'ajoûteray mes Notes à la fin de chaque Question, qui contiendront les diverses opinions des autheurs, ce qu'on en doit croire de toutes, & leur utilité, ce que je croy pouvoir faire en telle sorte, qu'on verra

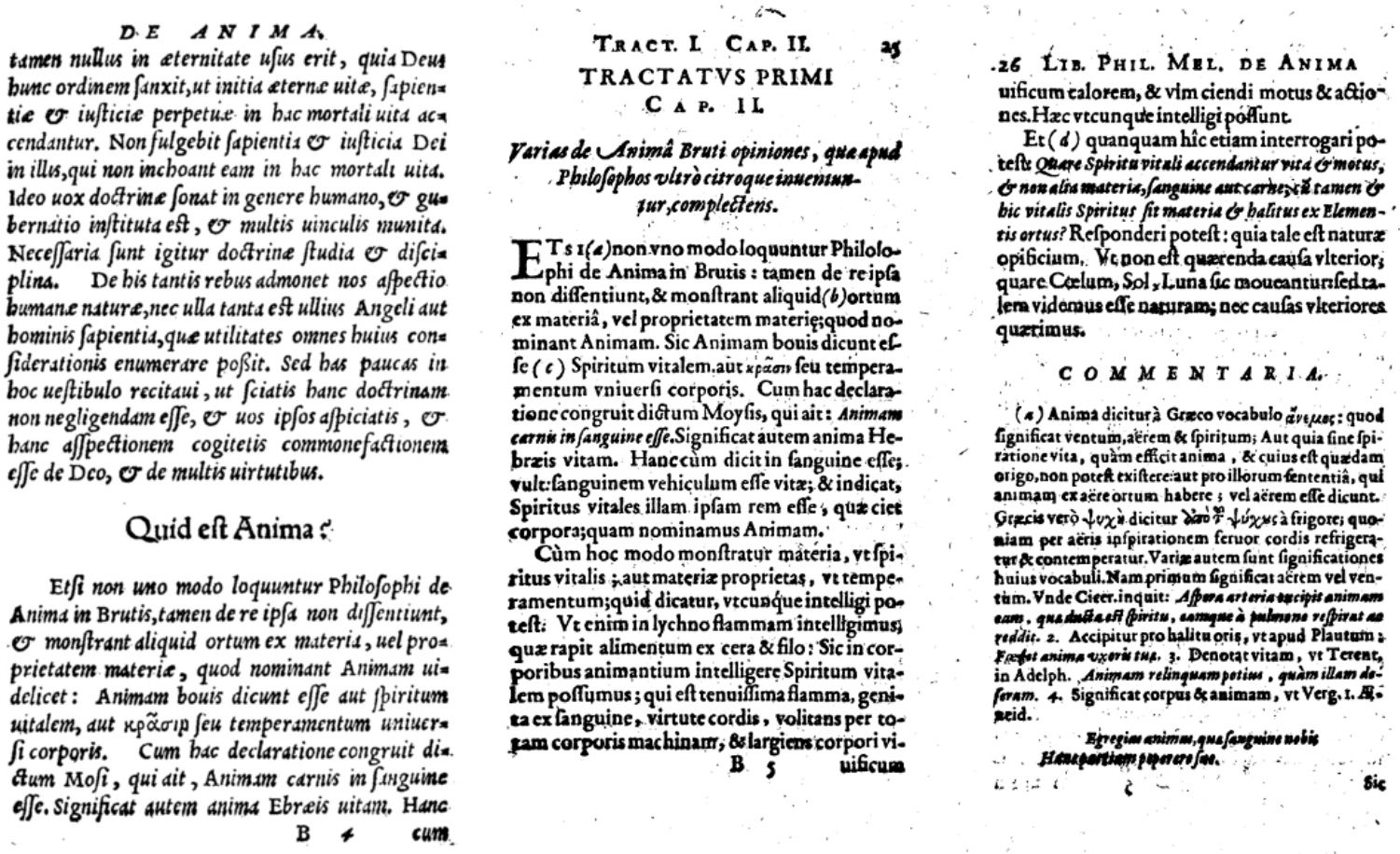
[76] Schmutz 2002, 14, points to Descartes' erroneous claim, in a 1637 letter to Mersenne, that the Thomist doctrine *omnis peccans est ignorans* is widespread.

[77] For more on Descartes' Eustachius project, see Ariew 1999, Chapter 1, Ariew 2011, Chapter 1, Armour 1993, Pitte 1988, and Wells 2002.

> facilement la comparaison de l'une avec l'autre, & que ceux qui n'ont point encore appris la Philosophie de l'Ecole, l'apprendront beaucoup plus aisément de ce livre que de leurs maistres, à cause qu'ils apprendront par mesme moyen à la mépriser, & tous les moindres maistres seront capables d'enseigner la mienne par ce seul livre. (AT 3.259-60)

What is Descartes' project here, and how distinctive an undertaking was it within early modern textbook writing? There were certainly strong classical precedents for commentaries on commentaries: part of Averroes's *Great Commentary* on the *Metaphysics*, for instance, was a commentary on Alexander's treatment of the same book.[78] In the early modern period, scholars had continued to produce commentaries on ancient commentators: for instance, Toletus's commentary on Aristotle's logic, like many other scholastic textbooks on dialectic, begins with a commentary on the *Isagoge*, itself a commentary on the *Categories*.[79] But early modern writers did not just have to engage with ancient authors. It was similarly natural to produce the sort of commentary on a modern commentator that Descartes was proposing. One of the major subjects of such texts in the sixteenth and seventeenth centuries was Melanchthon, and commentaries on his work give us an idea of what Descartes might have had in mind. Melanchthon's commentaries on *On the Soul*, in particular, received a series of treatments by prominent Protestant authors.[80] Melanchthon wrote two such commentaries, the *Commentaria de anima* of 1540 and the *Liber de anima* of 1553, which anticipate the style of compressed, reordered textbook which authors like Eustachius would produce in the next century; most strikingly, both of them entirely omit Aristotle's primary text.[81] One of the most prominent early modern commentaries on Melanchthon was Johannes Magirus's *Anthropologia* of 1603, which took the *Liber de anima* as its text.[82] Figure 1.2 shows a page of Melanchton's book, alongside the two corresponding pages from the *Anthropologia*. Magirus simplified Melanchthon's text: whereas Melanchthon had kept his work structured around questions, Magirus stripped these titles out, and instead presented Melanchthon's text as a series of tracts subdivided into chapters. The body of the text was largely given in full, but with substantial omissions which Magirus did not mark explicitly. Most notably, the final fifty or so pages of Melanchthon's text, from the heading 'De libero arbitrio' to the end, were omitted entirely. Much as Descartes had proposed, the main body of Magirus's commentary is made up of chapters by Melanchthon, reproduced in full and followed by commentary, which takes up in order passages which have been marked in Melanchthon's text with Roman letters, and consists of interpretive re-

[78] Fazzo 2004, 12.
[79] Toledo 1572. See further Ariew 2014, 44.
[80] See Melanchthon 1999, xxviii, and Kusukawa 1995 more generally.
[81] Melanchthon 1540 and 1552.
[82] Magirus 1603. For more on Magirus's commentary, see Edwards 2013, 529-32.



DE ANIMA.

tamen nullus in æternitate usus erit, quia Deus hunc ordinem sanxit, ut initia æternæ uitæ, sapientiæ & iustitiæ perpetuæ in hac mortali uita accendantur. Non fulgebit sapientia & iustitia Dei in illis, qui non inchoant eam in hac mortali uita. Ideo uox doctrinæ sonat in genere humano, & gubernatio instituta est, & multis uinculis munita. Necessaria sunt igitur doctrinæ studia & disciplina. De his tantis rebus admonet nos aspectio humanæ naturæ, nec ulla tanta est ullius Angeli aut hominis sapientia, quæ utilitates omnes huius considerationis enumerare possit. Sed has paucas in hoc uestibulo recitaui, ut sciatis hanc doctrinam non negligendam esse, & uos ipsos aspiciatis, & hanc aspectionem cogitetis commonefactionem esse de Deo, & de multis uirtutibus.

Quid est Anima?

Etsi non uno modo loquuntur Philosophi de Anima in Brutis, tamen de re ipsa non dissentiunt, & monstrant aliquid ortum ex materia, uel proprietatem materiæ, quod nominant Animam uidelicet: Animam bouis dicunt esse aut spiritum uitalem, aut κρᾶσιν seu temperamentum uniuersi corporis. Cum hac declaratione congruit dictum Mosi, qui ait, Animam carnis in sanguine esse. Significat autem anima Ebræis uitam. Hanc

B 4 cum

TRACT. I. CAP. II. 25

TRACTATVS PRIMI
CAP. II.

Varias de Animâ Bruti opiniones, quæ apud Philosophos vltrò citroque inueniuntur, complectens.

ETsi (a) non vno modo loquuntur Philosophi de Anima in Brutis: tamen de re ipsa non dissentiunt, & monstrant aliquid (b) ortum ex materiâ, vel proprietatem materiæ; quod nominant Animam. Sic Animam bouis dicunt esse (c) Spiritum vitalem, aut κρᾶσιν, seu temperamentum vniuersi corporis. Cum hac declaratione congruit dictum Moysis, qui ait: *Animam carnis in sanguine esse.* Significat autem anima Hebræis vitam. Hanc cùm dicit in sanguine esse; vult sanguinem vehiculum esse vitæ; & indicat, Spiritus vitales illam ipsam rem esse, quæ ciet corpora; quam nominamus Animam.

Cùm hoc modo monstratur materia, vt spiritus vitalis; aut materiæ proprietas, vt temperamentum; quid dicatur, vtcunque intelligi potest: Vt enim in lychno flammam intelligimus; quæ rapit alimentum ex cera & filo: Sic in corporibus animantium intelligere Spiritum vitalem possumus; qui est tenuissima flamma, genita ex sanguine, virtute cordis, volitans per totam corporis machinam, & largiens corpori vi-

B 5 uificum

26 LIB. PHIL. MEL. DE ANIMA

uificum calorem, & vim ciendi motus & actiones. Hæc vtcunque intelligi possunt.

Et (d) quanquam hîc etiam interrogari potest: *Quare Spiritu vitali accendantur vita & motus, & non alia materia, sanguine aut carne; cùm tamen & hic vitalis Spiritus sit materia & halitus ex Elementis ortus?* Responderi potest: quia tale est naturæ opificium. Vt non est quærenda causa vlterior; quare Cœlum, Sol, Luna sic moueantur; sed talem videmus esse naturam; nec causas vlteriores quærimus.

COMMENTARIA.

(a) Anima dicitur à Græco vocabulo ἄνεμος: quod significat ventum, aërem & spiritum; Aut quia sine spiratione vita, quàm efficit anima, & cuius est quædam origo, non potest existere: aut pro illorum sententiâ, qui animam ex aëre ortum habere; vel aërem esse dicunt. Græcis verò ψυχὴ dicitur ἀπὸ τοῦ ψύχους à frigore; quoniam per aëris inspirationem feruor cordis refrigeratur & contemperatur. Variæ autem sunt significationes huius vocabuli. Nam primum significat aërem vel ventum. Vnde Cicer. inquit: *Aspera arteria excipit animam eam, quæ data est spiritu, eamque à pulmone respirat ac reddit.* 2. Accipitur pro halitu oris, vt apud Plautum: *Fœtet anima vxoris tuæ.* 3. Denotat vitam, vt Terent. in Adelph. *Animam relinquam potius, quàm illam deseram.* 4. Significat corpus & animam, vt Verg. 1. Æneid.

Egregiam animam, qua sanguine nobis
Hanc portam primo quæsiuit.

ζ Sic

marks, comments on Melanchthon's Greek, and references to authors — in the page reproduced, to Cicero, Plautus, Terence, and Virgil. There would have been disanalogies between Descartes' project and Magirus's: the latter's commentary was essentially sympathetic to the primary text, whereas Descartes, despite his respect for Eustachius's accomplishment, was setting out to demolish the philosophy he represented. There would have been practical differences, too: in our example, Magirus gives four pages of commentary for a page and a half of text set in larger print, which is representative of the balance of the work; Eustachius's book is about four times as long as Melanchthon's, and keeping the same ratio of text to commentary which Magirus used would have made for a huge, unwieldy book. Still, we have an idea of what Descartes' Eustachius book might have looked like.

The reasons Descartes gives in the passage just quoted make it clear that, even if he is deploying the form most closely associated with scholasticism, his aversion to the institutionalised Aristotelianism of his day has not waned. He is attracted to commentary, he says, for the sharp contrast it allows between his work and Eustachius's: the form appeals because it allows two antagonistic approaches to be clearly compared, and for the evident superiority of his own to come out. This desire for a form which allowed his thought to be assessed and grasped as a whole was distinctively Cartesian — as early as the *Regulæ*, he had thought of his ideal reader as one capable of '[c]atenam scientiarum pervid[ere]' ('taking in the whole chain of the *scientiæ*', AT 10.215) —, and breaks with the typical uses of commentary in the Aristotelian tradition we saw above in at least two ways.[83] First, it conceives the task of the commentator as the criticism, rather than the explanation, of their text: while controversies within Aristotelian commentary were typically conducted (with exceptions like Philoponus and Oresme) as debates about right interpretation of the primary text, Descartes shows no interest in the underlying Aristotelian sources. Nor, secondly, is he interested in the typical subordination of commentator to author: Descartes is offering his views, not as explanations of Eustachius's, but as a successful competitor to them, and indeed as a successful competitor to all of the authors available in Eustachius's tradition. Descartes is, in fact, planning to perfect the scholastic form: students will learn Aristotelianism 'beaucoup plus aisément' from his text than from others, and even 'les moindres maistres' will be able to teach well with it. But this perfect exposition of Aristotelianism is only possible because it ultimately rejects scholasticism. His students will learn to 'mépriser' Aristotle. This Trojan-horse character of Descartes' project suggests another comparison for his work: Gassendi's

[83] For more on Descartes' idea of grasping a whole body of knowledge, which has Platonic roots, see Chapter 3 below, and Jones 2006, 58-60.

Exercitationes.[84] These were based on his lectures on Aristotelianism between 1617 and 1623, while Gassendi held a Chair of Philosophy at Aix-en-Provence. Their title makes reference to their origin in the classroom; it may also echo Montaigne's *Essais*, whose title was sometimes translated into Latin as *exercitationes* to bring out the sense of unfinished, exploratory exercises.[85] The underlying form of the text is consequently a scholastic one, and Gassendi had used his lectures to introduce his students to Aristotle. But Gassendi had also used his lectures to attack Aristotelianism, explicitly deploying the attack on scholastic education he had encountered in Montaigne and Charron; the *Exercitationes* represent the *pars destruans* of his teaching.[86] Gassendi deployed this Pyrrhonic critique of scholastic education from within the classroom; Descartes' Eustachius project was an attempt to mount a similar modernising critique of Aristotelianism from within the dominant scholastic textbook form. I return to Charron's attack on scholastic education, and Descartes' relationship with this, in Chapter 2.

Descartes abandoned the Eustachius project, and no texts survive from it. The project's goal had been to provide a clear contrast between Descartes' own work and that of the schools. He had proposed to do that by engaging with Eustachius and other scholastics point by point. But he decided that a purely positive presentation of his own thought would serve the same purpose. As he wrote to Mersenne in September 1641:

> Il est certain que j'aurois choisi le Compendium du Père Eustache comme le meilleur, si j'en avois voulu refuter quelqu'un ; mais aussi est-il vray que j'ay entierement perdu le dessein de refuter cette Philosophie ; car je voy qu'elle est si absolument & si clairement détruite, par le seul establissement de la mienne, qu'il n'est pas besoin d'autre refutation […] (370)

Descartes had turned to the commentary form because he thought the contrast between texts it enabled would best allow his readers to see the evident superiority of his own. The project of making that superiority clearly visible remained, but the idea that it had to be achieved by explicit contrast with another text dropped out. In its place, Descartes gave his energy to the *Principia*. Descartes began work on the text in 1641; a final draft was ready by 1644, and was published the same year.[87] The *Principia* and the *Specimina*, a reworking of the *Discours* published at the same time, showed Descartes trying, in a new way, to frame his arguments in a more textbook-like manner. What were these changes? How

[84] Gassendi 1624, published in a more complete posthumous edition in Gassendi 1658. For more on the text and its versions, see Murr 1993, 16n37. I base my account on Maia Neto 2014, 46-50.

[85] O'Brien 2016, 172.

[86] Maia Neto 2014, 49-50.

[87] For the composition and publication of the *Principia*, see Gaukroger 1995, 364-77. Ariew 1996 discusses connections between Eustachius's *Summa* and the *Principia*. For more on connections between the *Principia* and the *lycée* curriculum, see Brockliss 1994.

successful were they?

1.2.2 Textbook structure after the Eustachius project. The *Principia* marks a formal shift in Descartes' writing, away from the first-person singular forms which predominate in the *Discours* and the *Méditations*, and towards a style which more closely resembles that of late scholastic textbooks. Eustachius gives us a good example of the authorial voice used by default in teaching texts of the time. There are only a few moments, occurring primarily in paratexts, where Eustachius speaks in the first person singular, with the reader as an explicit addressee. That happens most obviously in his 'Ad Lectorem', where Eustachius emphasises his independence from any particular current of Aristotelianism:

> Lectorem monitum esse velim, nos quidem Aristotelem Peripateticæ sectæ authorem tanquam Philosophorum principem suspicere, atque ambabus ulnis amplecti, utpote naturæ, quam hîc ducem sequimur, fidelissimum interpretem: nulli tamen Peripateticorum sive Thomistarum, quos vocant, sive Scotistarum, sive eorum qui Nominales dicuntur sectæ addictos esse, tantúmque fidei illis, imò & ipsi Aristoteli habituros, quantum ratio suaserit. (Eustachius 1609, 4)
>
> I want to warn the reader that we look up to Aristotle of the Peripatetics as first among philosophers, and embrace him with open arms, and follow him here as nature's most faithful interpreter; we do not, however, concede to anything of the Peripatetics, or of the Thomists, as they are called, or of the Scotists, or of those who are named Nominalists, and we have confidence in them — and even in Aristotle himself — only so far as reason allows it.

But this level of definition among the different persons in the text, with Eustachius and his reader clearly separated out, and Eustachius defining his own position against those of other interpreters, is not maintained in the main text of the *Summa*. There, by contrast, Eustachius opts for the third person, or else a generic first person plural: there are only six verbs in the first person in the preliminary logic questions, all in the plural, even where Eustachius is speaking about his own authorial decisions.[88] (He also uses plural pronouns, speaking for instance of 'nostra Dialecticâ sive Logicâ'.)[89] This style of address is the norm for textbooks of the time: the Coimbra *Physics* commentary, for instance, rarely uses the first person, and then only in the plural.[90] Descartes chooses this style in the *Principia*, although with a heavier use of the first person plural than in the Conimbricenses. That Eustachius or the Coimbra authors use such a style is not surprising; for Descartes, however, it marks a substantial departure from his earlier practice. This comes out if we compare the *Principia* with Descartes'

[88] Eustachius 1609, 14.
[89] Eustachius 1609, 6.
[90] At Fonseca 1591, 3, for instance.

presentation of the same material in the *Discours* and the *Méditations*. The main text of the *Principia* begins:

> Quoniam infantes nati sumus, & varia de rebus sensibilibus judicia priùs tulimus, quàm integrum nostræ rationis usum haberemus, multis præjudiciis à veri cognitione avertimur ; quibus non aliter videmur posse liberari, quàm si semel in vitâ, de iis omnibus studeamus dubitare, in quibus vel minimam incertitudinis suspicionem reperiemus. (AT 8.1.5)
>
> Comme nous avons été enfans avant que d'estre hommes, & que nous avons jugé tantost bien & tantost mal des choses qui se font presentées à nos sens, lors que nous n'avions pas encore l'usage entier de nostre raison, plusieurs jugemens ainsi précipitez nous empeschent de parvenir à la connoissance de la verité, & nous previenent de telle sorte, qu'il n'y a point d'apparence que nous puissions nous en delivrer, si nous n'entreprenons de douter, une fois en nostre vie, de toutes les choses où nous trouverons le moindre soupçon d'incertitude. (AT 9.2.25)

The first part of this closely follows a passage in Part 2 of the *Discours*:

> Et ainsi encore je pensay que, pource que nous avons tous esté enfans avant que d'estre hommes, & qu'il nous a fallu long tems estre gouvernez par nos appetis & nos Precepteurs, qui estoient souvent contraires les uns aux autres, & qui, ny les uns ny les autres, ne nous conseilloient peutestre pas tousjours le meilleur, il est presqu'impossible que nos jugemens soient si purs, ny si solides qu'ils auroinent esté, si nous avions eu l'usage entire de nostre raison dés le point de nostre naissance, & que nous n'eussions jamais esté conduits que par elle. (AT 6.13)

There are two major differences between this passage and the *Principia* quotation. The first is that the *Discours* passage gives a more fine-grained and socially situated account of the reasons why our judgement might have been misled in our early life, in terms of 'nos appetis', 'nos Precepteurs', and the conflicts between them. The second is that the *Discours* passage does not include Descartes' decision to undertake the method of doubt. An equivalent for this second part of the *Principia* quotation comes, rather, in Part 6 of the *Discours*:

> Je ne sçay si je doy vous entretenir des premieres meditations que j'y ai faites […]. Et toutefois, affin qu'on puisse juger si les fondemens que j'ai pris sont assez fermes, je me trouve en quelque façon contraint d'en parler. J'avois dés long temps remarqué que, pour les meurs, il est besoin quelquefois de suivre des opinions qu'on sçait estre fort incertaines […] ; mais […] je pensai […] que je rejettasse, comme absolument faux, tout ce en quoi je pourrois imaginer le moindre doute, affin de voir s'il ne resteroit point, après cela, quelque chose en ma créance, qui fust entièrement indubitable. (31)

Descartes' discussion of childhood and deceit in Part 2 of the *Discours* was conducted, in a large part, in the first person plural: he was describing a condition common to all. The decision to use hyperbolic doubt, on the other hand, is narrated in the first person singular. In both cases the reader is addressed in the second person plural. This strong distinction between the first and second person singular serves Descartes' presentation of his own aims in the *Discours*: the structuring conceit of the text is that Descartes is presenting a report on his own intellectual progress which might serve as an example for his reader, rather than laying down precepts for how his readers ought to conduct inquiry themselves. This enables Descartes to define his project primarily as one of self-reform, and to disavow any ambition to directly alter the way others conduct inquiry. He makes this point with the civic and architectural metaphors we have already encountered:

> [J]e ne sçaurois aucunement approuver ces humeurs brouillonnes & inquietes, qui, n'estant appelez au maniement des affaires publiques, ne laissent pas d'y faire tousjours, en idée, quelque nouvelle reformation […]. Jamais mon dessein ne s'est estendu plus avant que de tascher a reformer mes propres pensées, & de bastir dans un fons qui est tout a moy. (14-15)

The conceit of offering a report is emphasised by gestures of hesitancy about whether or not to share the full scope of his work with his reader. The concern is particularly acute when presenting the opening moments of his metaphysics, which rely heavily on sceptical arguments: 'Je ne sçay si je doy vous entretenir […]'. Elsewhere in the text such hesitancy becomes a dominant topic, particularly in the extended back-and-forth in Part 6 about whether or not to publish. Such hesitancy is not just rhetoric: Descartes is worried that weaker students, reading such arguments, may 's'esgarer du chemin commun […] & demeur[er] esgarez toute leur vie' (15). In particular, he is worried that he might be responsible for this *esgarement* — that, as he wrote to Mersenne, 'je les eusse engagez dans un mauvais pas, sans peut-estre les en tirer' (AT 1.350). I say more about Descartes' language of private reform, his *récits de publication*, and how he expects his readers to learn from his text in Chapter 2. My point for the minute is that this complexity of address, in which Descartes switches between speaking for humanity at large and speaking only for himself, and which shows up in his pronoun use and in his gestures of hesitation about writing, is largely absent from the main body of the Latin edition of the *Principia*.[91] The introduction of the method of doubt is transposed, in the quoted passage, into the first person plural: 'que je rejettasse […] tout ce en quoi je pourrois imaginer le moindre doute' becomes 'nous […] entreprenons de douter […] de toutes les choses où nous trouverons le moindre soupçon

[91] For more on this point see Cottingham 1997, 35.

d'incertitude'. The distinction between the author speaking for himself, as 'je', and speaking for all, as 'nous', is doing very little work here, and the sharp distinction between the author and the addressee has, as a consequence, been elided. The first person plural covers all uses.[92] A similar contrast is available between the opening of the *Principia* and its parallel presentation in the *Méditations*. Here is the *Méditations* text:

> Animadverti jam ante aliquot annos quàm multa, ineunte ætate, falsa pro veris admiserim, & quàm dubia sint quæcunque istis postea superextruxi, ac proinde funditus omnia semel in vitè esse evertenda, atque a primis fundamentis denuo inchoandum, si quid aliquando firmum & mansurum cupiam in scientiis stabilire […] (AT 7.17)
>
> Il y a desja quelque temps que je me suis apperceu que, dés mes premieres années, j'avois receu quantité de fausses opinions pour veritables, & que ce que j'ai depuis fondé sur des principes si mal assurez, ne pouvoit estre que fort douteux & incertain ; de façon qu'il me falloit entreprendre serieusement une fois en ma vie de me défaire de toutes les opinions que j'avois receuës jusques alors en ma créance, & commencer tout de nouveau dés les fondemens, si je voulois establir quelque chose de ferme & de constant dans les sciences. (AT 9.1.13)

This represents an intermediate stage between the *Discours* and the *Principia*. The first-person voice is less clearly marked as Descartes' own, and is less clearly situated socially or historically: Descartes' concern about conforming to the *meurs* of his society, which in the *Discours* precedes the undertaking of radical doubt, is entirely omitted from the order of inquiry of the *Méditations*, as is any mention of *précepteurs*. Elsewhere in the *Méditations* the first person singular and plural are still intertwined.[93] The presence of the second-person addressee, too, has been deemphasised, as has any sort of discussion about addressing material to them through publication. But Descartes is still presenting his work as an example to be followed. Moreover, the *Méditations* comes with a more forceful account than the *Discours* of how his readers are to learn from his book: 'nullis author sum ut hæc legant, nisi tantùm iis qui seriò mecum meditari, mentemque a sensibus, simulque ab omnibus præjudiciis, abducere poterunt ac volent' ('I would not urge anyone to read this book except those who are able and willing to meditate seriously with me, and to withdraw their minds from the senses and from all preconceived opinions', AT 7.9/CSM 2.8). This sounds more like a Jesuit contemplation manual than a philosophy textbook and, indeed, Descartes contrasted having written 'Meditationes' with 'ut Philosophi, Disputationes, vel, ut Geometræ, Theoremata & Problemata' ('des disputes ou des questions, comme font

[92] This is reminiscent of the use of the first person plural standpoint in moralist authors like La Rochefoucauld. For more on connections between Descartes and the *moralistes*, see Levi 1964 and Moriarty 2011.

[93] For instance, at AT 7.32/9.1.25. For more on shifts in number in this passage, see Helgeson 2007, 34.

les Philosophes, ou bien des theoremes ou des problemes, comme les Geometres', AT 7.157/9.123). As we will see at the end of the chapter, the religious turn to his language, and the demand for obedience from those who wish to 'seriò mecum meditari', caused alarm.

Descartes' style in the Latin edition of the *Principia*, then, seems to mark a simplification of his early presentations of the same material. Structural features of Descartes' work from the period also support the idea of a simplification here. We can see this in the *Specimina philosophiæ*, the Latin translation of the *Discours*, the 'Météores', and the 'Dioptrique' which appeared at the same time as the Latin edition of the *Principia*. The *Principia* and *Specimina* were typically either bound together or printed in twin volumes, with the *Principia* coming first in both cases.[94] The *Specimina* had been prepared in the late 1630s, and Descartes brought it out with the *Principia* as part of his broader push to advertise his thought and to extend the project of the *Essais*.[95] 'Specimina' translates 'essais', and brings out a distinction covered up in the French term: Descartes did not propose his essays as *exercitationes*, as Montaigne (and Gassendi) had, but as a masterpiece marking the end of his training — in Nicot's gloss, '*la piece d'un chef d'œuvre d'un artisan qui pretend à la maistrise en l'art*, Specimen, argumentum'. In reworking the contents of the *Discours* and *Essais*, the 'Géométrie' was left out entirely. That was probably in order to exclude highly technical, less accessible material from what was now conceived as a volume of teaching texts, and to streamline what was being promoted as a natural philosophical project. (It was certainly also the case that Descartes was simply less interested in mathematics than he had been in the early 1630s. It may also have been that Courcelles, who did the translations, simply found the text too hard to translate.)[96] The narrative *Discours* is still included. In the *Specimina*, however, it is more explicitly treated as a preface to the *Essais*, rather like the preliminary questions in a textbook. That is shown, for instance, in the *Specimina*'s table of contents. The first edition of the *Discours* and *Essais* had only indexed the essays, putting the indices at the end of the respective texts and using bare section numbers in the margins to show the structure of the *Discours* ('Première partie', 'Deuxième partie', and so on). By contrast, the table of contents to the *Specimina* appears at the front of the whole book and presents each of the different parts in a single index. That includes the *Discours*, whose sections are now given full titles ('1. Varia circa scientias considerationes', and so on). Descartes' earlier work is being recast in a more coherent, more easily accessible, and more

[94]The production and distribution of the *Specimina* is substantially less well studied than those of the *Principia*. For a discussion of the relationship between the two books, see Descartes (1644) 2007, 23-4.

[95]Roux 1998, 222.

[96]For Descartes' possible reasons for excluding the 'Géométrie', see the discussion at Descartes (1644) 2007, 14-18.

conventional form. The indexes to the *Essais* included a paratext warning readers against using the book first of all as a reference work, explaining that it was supposed to be read through in order first of all (AT 6.486). That has been stripped out of the *Specimina*. In the *Essais*, such a warning emphasised that Descartes was presenting a single chain of reasoning, and that he intended his readers to learn from it by grasping it as a whole. In offering a briefer, more clearly signposted version of Descartes' early work, the *Specimina* retains Descartes' earlier goal of presenting a system that can be grasped as a whole. In the *Essais* however, that goal was connected to the thought that the text should be read as a narrative: the chain was to be grasped by following it link by link. That narrative conception of how the reader ought to approach the work is deemphasised in the *Specimina*: readers are free to move around within it as they would in any reference book. Nor did the paratexts of the *Principia* initially reassert the narrative conception: it was not until Descartes added his 'Lettre de l'autheur' to the French edition that he asked once more 'qu'on le parcourust [i.e. ce Livre] d'abord tout entier ainsi qu'un Roman' (AT 9.2.11-12).

All this does not mean, however, that Descartes subscribed completely to common textbook style when he came to write the *Principia*. This shows up especially in the ordering of his text. Figure 1.3 shows the opening paragraphs of the main text of the *Principia*, alongside the opening paragraphs of Henricus Regius's *Fundamenta physices*.[97] Regius's book appeared two years after Descartes', and was the first sustained attempt to produce a primarily Cartesian physics textbook. (Nominally Cartesian, at least; I look at the underlying philosophical divergences between Regius and Descartes in the next section.) The two books were printed by the same publisher, Elsevier, and the visual resemblance between them is close. The text of each chapter is a single block of Latin prose, without the complexities of a commentary layout we saw in the case of Magirus or the Conimbricenses. There are few references to other works, and few named authors. The margins contain only section titles. (The French translation of the *Principia* breaks the prose up by putting the titles in the body of the text.) The only major visual difference is that Descartes' margin is busier: the section titles are longer, with numbering, and there are more of them. Such material is there to orient the reader, and its density in the opening moments of the text marks the difficulty, and the distinctiveness, of Descartes' opening. This is a departure from the traditional scholastic order of exposition. Textbooks usually began with preliminary questions which lay out the subject to be discussed: the etymology of its name, whether it is a science or an art, what its goal is, where it stands in relation to other sciences, what its parts are,

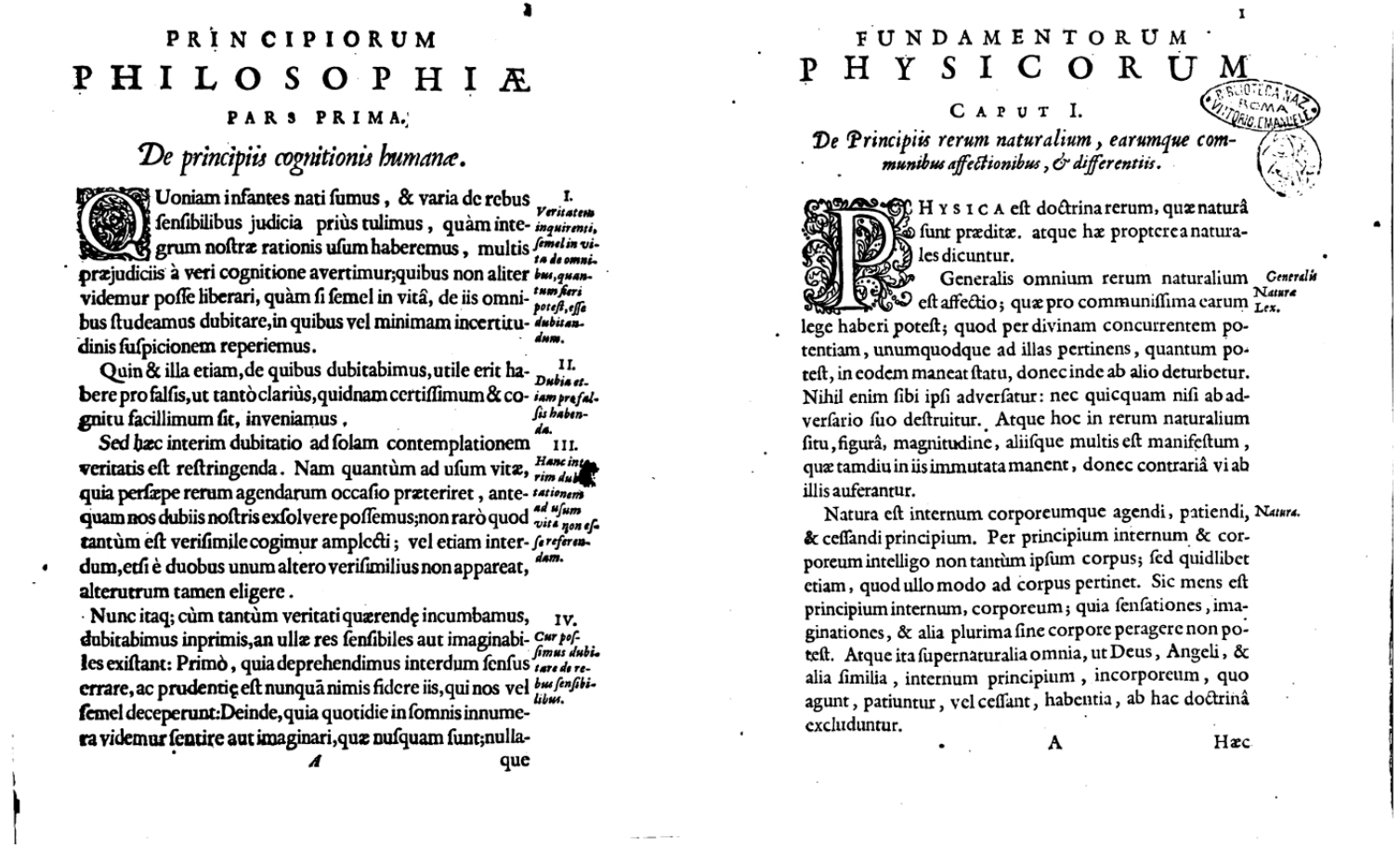
[97] Regius 1646. For more on the *Fundamenta physices* see Verbeek 1994.

and what order they will be treated in.[98] The Coimbra commentary on the *Physics*, for instance, begins with a 'Prooemium', 'De nomine definitionéque Philosophiæ'. This more traditional route is the one Regius takes. The opening of his text is less philological than the *Physics* commentary, but is similarly interested in the sort of prefatory definitions of his discipline which Descartes bypasses: 'Physica est doctrina rerum, quæ naturâ sunt prædítæ, atque hæ propterea naturales dicuntur' ('Physics is the doctrine of things that are endowed by nature, and these therefore are called "natural"').[99] Regius's first chapter then offers a hasty introduction to Cartesian ontology and physics: he discusses definitional material on nature, laws, matter, and essence (1-3); types of natural forms (3-6); movement (7-11); basic machines (levers, pulleys, axles, screws, and wedges), which are discussed only superficially (11-7); laws of motion (17-27); internal and external forces (27-8); magnitude, figure, position (28-9); mind (29); other positions, with explicit discussions of a classical commentator, Simplicius, and a late scholastic, Pererius (29-33); place (33-4); vacuums (34-44); time and chance (44-5); and, finally, artificial mechanisms (45-7). Importantly, material which we would now consider distinctively Cartesian (and which Descartes viewed as fundamental to his achievement) is deemphasised: there is no discussion of epistemology or method, and while Regius does give a treatment of mind, it is set late in the chapter, rather than at its outset, and is very cursory. This reflects particular philosophical differences between Descartes and Regius, as we will see, but it fits within a trend of influential Cartesians abandoning basic features of Descartes' order of the sciences; Jacques Rohault's later *Traité de physique*, for instance, was similarly unorthodox.[100] The Conimbricenses and the *Fundamenta physices* offer two ways of giving students a schematic overview of the discipline and its structure, one philological and the other natural-philosophical. Descartes' opening to the *Principia* diverges strikingly from both of these. Rather than reserving the opening moves of the book for questions about the history and structure of the discipline, Descartes opens the first part of the *Principia* with hyperbolic doubt (§§ 1-5), and then moves seamlessly into what is effectively a full metaphysics course, covering free will and basic items of knowledge available to us (6-8); definitional material on thought and knowledge (9-12); the role of God in knowledge, proofs of God's existence, and knowledge of God (13-23); knowledge of finite and infinite things (24-8); God and free will, the connection between will and understanding, and the connection between will and error (29-42); the avoidance of error through clear and distinct understanding (43-7); clear and distinct understanding and truth, and the role of preju-

[98] For a discussion of this material in texts on logic, ethics, physics, and metaphysics, see Ariew 2014, 48, 63, 73-4, and 99, respectively.

[99] Regius 1646, 1.

[100] Rohault 1671. See Garber 1992, 62.



PRINCIPIORUM
PHILOSOPHIÆ
PARS PRIMA.

De principiis cognitionis humanæ.

QUoniam infantes nati ſumus, & varia de rebus ſenſibilibus judicia priùs tulimus, quàm integrum noſtræ rationis uſum haberemus, multis præjudiciis à veri cognitione avertimur; quibus non aliter videmur poſſe liberari, quàm ſi ſemel in vitâ, de iis omnibus ſtudeamus dubitare, in quibus vel minimam incertitudinis ſuſpicionem reperiemus.

I. *Veritatem inquirenti, ſemel in vita de omnibus, quantum fieri poteſt, eſſe dubitandum.*

Quin & illa etiam, de quibus dubitabimus, utile erit habere pro falſis, ut tantò clariùs, quidnam certiſſimum & cognitu facillimum ſit, inveniamus.

II. *Dubia etiam pro falſis habenda.*

Sed hæc interim dubitatio ad ſolam contemplationem veritatis eſt reſtringenda. Nam quantùm ad uſum vitæ, quia perſæpe rerum agendarum occaſio præteriret, antequam nos dubiis noſtris exſolvere poſſemus; non rarò quod tantùm eſt veriſimile cogimur amplecti; vel etiam interdum, etſi è duobus unum altero veriſimilius non appareat, alterutrum tamen eligere.

III. *Hanc interim dubitationem ad uſum vitæ non eſſe referendam.*

Nunc itaq; cùm tantùm veritati quærendę incumbamus, dubitabimus inprimis, an ullæ res ſenſibiles aut imaginabiles exiſtant: Primò, quia deprehendimus interdum ſenſus errare, ac prudentię eſt nunquā nimis fidere iis, qui nos vel ſemel deceperunt: Deinde, quia quotidie in ſomnis innumera videmur ſentire aut imaginari, quæ nuſquam ſunt; nullaque

IV. *Cur poſſimus dubitare de rebus ſenſibilibus.*

A

FUNDAMENTORUM
PHYSICORUM

CAPUT I.

De Principiis rerum naturalium, earumque communibus affectionibus, & differentiis.

PHYSICA eſt doctrina rerum, quæ naturâ ſunt præditæ. atque hæ propterea naturales dicuntur.

Generalis omnium rerum naturalium eſt affectio; quæ pro communiſſima earum lege haberi poteſt; quod per divinam concurrentem potentiam, unumquodque ad illas pertinens, quantum poteſt, in eodem maneat ſtatu, donec inde ab alio deturbetur. Nihil enim ſibi ipſi adverſatur: nec quicquam niſi ab adverſario ſuo deſtruitur. Atque hoc in rerum naturalium ſitu, figurâ, magnitudine, aliiſque multis eſt manifeſtum, quæ tamdiu in iis immutata manent, donec contrariâ vi ab illis auferantur.

Generalis Naturæ Lex.

Natura eſt internum corporeumque agendi, patiendi, & ceſſandi principium. Per principium internum & corporeum intelligo non tantùm ipſum corpus; ſed quidlibet etiam, quod ullo modo ad corpus pertinet. Sic mens eſt principium internum, corporeum; quia ſenſationes, imaginationes, & alia plurima ſine corpore peragere non poteſt. Atque ita ſupernaturalia omnia, ut Deus, Angeli, & alia ſimilia, internum principium, incorporeum, quo agunt, patiuntur, vel ceſſant, habentia, ab hac doctrinâ excluduntur.

Natura.

A Hæc

Figure 1.3: Comparing the opening of Descartes' *Principia* and Regius's *Fundamenta physices*. Photos: Google Books/Universiteitsbibliotheek Gent and Google Books/Bibliothèque de Lille.

dice (48-50); definitional material on substance, and the distinction between mind and body (51-5); attributes of substance, universals, and distinctions (56-62); knowledge of those, and typical errors regarding them (63-9); the possibility of avoiding these errors, and their causes (70-4); a summary, based on the above, on philosophising well (75); and a comment on the authority of the church in all this (76).

Compared to the *Fundamenta physices*, the opening of the *Principia* is formally unconventional for a textbook. Nonetheless, in the Latin edition of the *Principia* and in the *Specimina* which appeared at the same time, Descartes seems to have muted a number of concerns which had shaped his earlier work distinctively: about the risks faced by an audience encountering sceptical arguments for the first time; about the obligations to take these risks into account which he himself might bear; and about the potential for an exemplary model of teaching to fulfil these obligations. A related set of concerns became prominent in later editions of the *Principia*, as Descartes dealt with the fallout from his quarrel with Regius: about the risks posed to his own, private undertaking by others' attempts to disseminate and extend his work, and about the obligations created by public misrepresentation of his work. This second set of concerns is the topic of the next section.

1.3 Descartes and his followers: the break with Regius

The first Latin edition of *Principia* lacked the sort of prefatory material normal in the textbooks of the period. When a French edition of the book appeared in 1647, Descartes addressed this omission with a twenty-six page 'Lettre de l'autheur a celuy qui a traduit le livre, laquelle peut ici servir de Préface'. He explained his decision to incorporate this new material in the letter itself:

> J'appréhende seulement que le titre [i.e. 'Les Principes de la Philosophie'] n'en rebute plusieurs qui n'ont point esté nourris aux lettres, ou bien qui ont mauvaise opinion de la Philosophie, à cause que celle qu'on leur a enseignée ne les a pas contentez ; & cela me fait croire qu'il seroit bon d'y adjouster une Préface, qui leur declarast quel est le sujet du Livre, quel dessein j'ay eu en l'écrivant, & quelle utilité on en peut tirer. (AT 9.2.1)

The material Descartes proposed to cover in the letter was precisely the sort of thing prefatory questions in textbooks typically addressed. And, true to Descartes' word, the 'Lettre de l'autheur' contains a more programmatic discussion than he had given in the Latin edition of the disciplines represented in the book, their structure and interconnections, links to his earlier work, contrasts with other approaches, and his treatment of authorities. His reasons for including this material, however, are

distinctively Cartesian. Conceiving the Eustachius project, Descartes had been trying to design something which would be exceptionally useful and attractive to beginners in philosophy: a more powerful version of the textbooks they would encounter in their normal schooling. Descartes is concerned that the successor project to the commentary, the Latin edition of the *Principia*, did not make the work appealing enough to those who 'n'ont point esté nourris aux lettres', and who found the title and bare text of the Latin edition rebarbative.

Towards the close of the 'Lettre de l'autheur', Descartes takes up the traditional question of whether the different parts of philosophy are arts or sciences.[101] He moves from there to the question of what progress in philosophy will look like. It depends on the discovery of first principles, he says, and these are to be judged by whether or not they have allowed concrete advances in the discovery of new truths; this has not been the case for Aristotelianism: 'on ne sçauroit mieux prouver la fausseté de ceux d'Aristote, qu'en disant qu'on n'a sceu faire aucun progrez par leur moyen depuis plusieurs siecles qu'on les a suivis' (AT 9.2.18-19).[102] He then pivots to a less conventional topic: What are the distinctive risks faced by a modernising project like his own, which tries to move past Aristotelianism's failures? Descartes answers using architectural images, his primary metaphorical tool for discussing the scope of his project and the dangers it faced. Even solid foundations are useless if built on with too much haste:

> Je sçay bien qu'il y a des esprits qui se hastent tant, & usent de si peu de circonspection en ce qu'ils font, que, mesme ayant des fondemens bien solides, ils ne sçauroient rien bastir d'assuré ; & pource que ce sont d'ordinaire ceux-là qui sont les plus prompts à faire des Livres, ils pourroient en peu de temps galler tout ce que j'ay fait, & introduire l'incertitude & le doute en ma façon de philosopher, d'où j'ay soigneusement tasché de les bannir, si on recevoit leurs écrits comme miens, ou comme remplis de mes opinions. (19)

Descartes is reprising his concerns about publishing. But whereas in the *Discours* he was interested in the consequences his own publication of his work might have for his project, his topic in the 'Lettre de l'autheur' is the effect which others claiming to speak for him might have on it. The metaphorical language of the *Discours* imagined his project as a private edifice; he is now confronting the question of other hands working on his material, and the fear that they may damage it by compromising its certainty. Regius's *Fundamenta physices* is precisely such a harmful book:

> J'en ay veu depuis peu l'expérience en l'un de ceux qu'on a le plus creu me vouloir suivre, & mesme duquel j'avois écrit, en quelque endroit, « que je m'assurois tant sur son esprit, que

[101] For more on scholastic treatments of this question see Ariew 2014, 48-9 and 99-100.
[102] I come back to Descartes' attack on Aristotelianism in this preface in Chapters 2 and 3.

> je ne croyois pas qu'il eust aucune opinion que je ne voulusse bien avoûer pour mienne » : car il publia l'an passé un Livre, intitulé *Fundamenta Physicæ* où, encore qu'il semble n'avoir rien mis, touchant la Physique & la Médecine, qu'il n'ait tiré de mes écrits […] toutefois, à cause qu'il a mal transcrit, & changé l'ordre, & nié quelques veritez de Metaphysique, sur qui toute la Physique doit estre appuyée, je suis obligé de le desadvoüer entièrement, & de prier icy les Lecteurs qu'ils ne m'attribuent jamais aucune opinion, s'ils ne la trouvent expressement en mes écrits, & qu'ils n'en reçoivent aucune pour vraye, ny dans mes écrits ny ailleurs, s'ils ne la voyent tres-clairement estre déduite des vrais Principes. (19-20, quoting 8.2.163)

For the defence and dissemination of his work, Descartes relied in large part on a small number of close relationships with young academics who served at once as his star pupils, his disciples, his institutional representatives within the Dutch universities, and his champions in the increasingly bitter public debates into which he was drawn from the 1640s onwards. Descartes' relations with his own master after La Flèche, Beeckman, were notoriously stormy, and Descartes resisted any acknowledgement in print or correspondence of Beeckman's role in his education.[103] Nonetheless, as his own star rose, Descartes relied heavily on others entering publicly into such intellectually dependent relationships. The first such disciple was Henricus Reneri, a Louvain theologian who converted to Calvinism and went on to study medicine.[104] Descartes tutored Reneri intensively in physics in the 1630s, and in 1636 Reneri took up a professorship at the University of Utrecht, becoming one of the first avowedly Cartesian university professors.[105] Reneri's progress within the Dutch university system was swift, but he died unexpectedly in 1639, at the age of 46.[106] Regius, a former student of Reneri and now professor of medicine at Utrecht, took over his role as chief advocate for Cartesianism within northern European academia.[107] Reneri had existed relatively peacefully within Dutch academic life: Martin Schoock, a student of his who even at the time aligned himself with Voetius's conservative Aristotelianism, recalled him with respect in the *Admiranda methodus*.[108] Regius, by contrast, quickly became em-

[103]So Beeckman is entirely absent from the *Discours*. For explicit resistance to such acknowledgement in the correspondence, see in particular AT 1.24. For Descartes' training with Beeckman see Gaukroger 1995, Chapter 3.

[104]For more on Reneri, see Buning 2013 and Sassen 1941.

[105]Gaukroger 1995, 225-6.

[106]Gaukroger 1995, 352-3.

[107]For Descartes' relationship with Regius see Descartes 2002, which gives an extensive commentary on their correspondence; this edition supersedes AT. Some of the same material has been edited in French as Descartes 1959. For an overview of Regius's life and work see Bellis 2013, Bos 2013, Clarke 2015, and Hallyn 2005. For the philosophical conflicts between Regius and Descartes see Clarke 2010, Schmaltz 1997, Verbeek 2000, C. Wilson 2000, and especially the essays collected in Verbeek 1993a. On Regius's own intellectual background beyond Cartesianism, see Farina 1975. For more on the broader context for Descartes' interactions with Regius, see Descartes and Schoock 1988 and Verbeek 1992.

[108]Schoock 1643, *2^{r}.

broiled in public controversies involving an increasingly broad section of academic and civic society in Utrecht; I look at these quarrels in detail in Chapter 4 below. At least in public, Descartes enthusiastically supported Regius, and in the *Letter to Voetius* of May 1644 he gave his disciple full leave to speak for him: 'Verumtamen acutissimo & perspicacissimo ingenio Regii tantùm tribuo, ut vix quicquam ab illo scriptum putem, quod pro meo non libenter agnoscam' ('Cependant, telle est ma confiance dans l'esprit éclairé et pénétrant de Regius, qu'il n'a, je pense, rien écrit que je ne puisse avouer hardiment').[109] This is the passage Descartes later quoted with regret in the 'Lettre de l'Autheur'. It effectively granted Regius the authority to represent him in public controversies.

But there were already philosophical tensions between Descartes and Regius. As we will see, in 1642 Regius had defended the view that human beings were *entia per accidens*, and had denied the substantial unity of mind and body. The thesis owed more to David Gorlaeus than it did to Descartes, who urged Regius to modify his position. Regius did ultimately abandon the view, but was still left with the problem of accounting for the interaction of substances; Descartes consistently refused to offer Regius any help developing a solution to the problem.[110] Descartes' final refusal, in July 1645, coincided with Regius putting the finishing touches on the *Fundamenta physices*, and the account of mind-body union he offered in that work ultimately owed as much to Gassendi as it did to Descartes: with Gassendi and against Descartes, Regius held that reason cannot prove the existence of God or the separability of the soul, and that intellectual knowledge requires the intellect to be a mode of the body rather than a distinct substance.[111] By 1646, Samuel Sorbière could report to Hobbes that Regius was part of an established anti-Cartesian movement that included Samson Johnson, Henricus Bornius, and Adrian Heereboord.[112] In addition to philosophical questions, Descartes had numerous specific complaints about Regius's treatment of his work in the *Fundamenta physices*, which were restated and amplified in correspondence with Mersenne, Huygens, Elisabeth, and Regius himself, and in the *Notæ in programma quoddam*.[113] Descartes was frustrated that some of the material on musculature and the eye in Regius's book was based on manuscripts produced for *Le Monde*, which Descartes had given to others and never intended Regius to see, let alone reproduce.[114] Descartes emphasised to Elisabeth

[109] AT 8.2.163, translated at Descartes and Schoock 1988, 385.

[110] Alexandrescu 2013, 9. See their correspondence in July 1645: Descartes 2002, 187-91 (AT 4.248-50, 254-6).

[111] Alexandrescu 2013, 10-18.

[112] Alexandrescu 2013, 2-3.

[113] See, in addition to the correspondence with Regius in July 1645, Descartes' letter to Mersenne on September 7, 1646 (AT 4.497), his letters to Mersenne and Huygens on October 5 (4.510-1, 517-18), his letter to Mersenne on November 23 (4.566-7), and his correspondence with Elisabeth between December of that year and January, 1648 (4.590, 619, 625-7, 629, 5.111).

[114] The material occurs at Regius 1646, 233-5. Descartes discusses the date of the text, and how it came into

that the breach of trust on Regius's part troubled him as much as the plagiarism: 'il n'a pas laissé de manquer à ce qu'il me devoit' (AT 4.646). Regius's plagiarism was inept, in any case, and Descartes' thought had been distorted and misrepresented: Regius's book 'ne contient rien, touchant la Physique, sinon mes assertions mises en mauvais ordre & sans leurs vrayes preuves, en sorte qu'elles paroissent paradoxes, & que ce qui est mis au commencement ne peut estre prouvé que par ce qui est vers la fin' (625). We have already seen that the complaint about changes in order were justified: Regius relegated Descartes' foundational discussions of mind and method to a very secondary place in his work. These were the 'fondemens bien solides' which he had worried about in the 'Lettre de l'autheur'. Descartes said that all of this changed how he made his work public, both through circulating manuscripts and printing books; Regius appears to have upset the uneasy compromise with publication Descartes had reached by the end of the *Discours*. He tells Mersenne he is no longer so willing to share ideas in manuscript.[115] He is embarrassed to put out the unpublished material used in the *Fundamenta physices*, as others will think he is indebted to Regius.[116] Descartes' central concern across all these different complaints is that Regius's reputation as a spokesman for Descartes may have jeopardised the Cartesian project. Writing to Mersenne, Descartes reiterates his worry that his own work will be judged in the light of the *Fundamenta physices*: 'son livre ne peut servir qu'a faire juger ces opinions ridicules' (AT 4.510). It particularly rankles that Descartes may find himself answerable for Regius's failings: 'ceux qui sçavent qu'il a fait cy devant grande profession d'amitié avec moy & suivy aveuglement toutes mes opinions, me voudront rendre coupable de toutes ses fautes'.

To Regius, Descartes' public condemnation of the *Fundamenta physices* was an injustice. In his final letter to Descartes, written before the publication of the book, he agreed to accommodate some of Descartes' concerns. But he railed against the idea that Descartes had the sort of authority over him which he seemed to claim, and in doing so alluded to concerns, originating with conservatives like Voetius and Schoock, that Cartesianism resembled an enthusiast movement more than it did a group of independent thinkers. Those critics were concerned that Descartes had, indeed, put his readers in danger. On Regius's account, their distrust had its roots in Descartes' claims about the clarity and distinctness of his arguments, which seemed to many to be hopelessly obscure. Descartes' requirement that his readers meditate with him was a smokescreen:

> Et pour ne vous en rien dissimuler, plusieurs se persuadent ici que vous avez beaucoup

Regius's hands, in a letter to Mersenne (AT 4.566-7).

[115] AT 4.497 and 566. There is an echo of the same point in his remark to Elisabeth that he is unwilling to write a treatise on erudition after the affair with Regius (5.111).

[116] The material eventually appeared in *L'Homme*; see the note at AT 4.566.

> décrédité votre philosophie, en publiant votre métaphysique [i.e. the *Méditations*]. Vous ne promettiez rien que de clair, de certain et d'évident; mais […] ils prétendent qu'il n'y a rien que d'obscur et d'incertain […] Il est inutile de leur alléguer que vos raisonnements se trouvent enfin tels que vous les avez promis. Car ils vous répliquent qu'il n'y a point d'enthousiaste, point d'impie, point de bouffon qui ne pût dire la même chose de ses extravagances et de ses folies. Encore une fois, je consentirai que l'on retranche de mon écrit ce qui peut vous y déplaire, si vous le jugez à propos; mais, après tout, je ne vois rien qui puisse me faire honte, ou que je doive me repentir d'avoir écrit. Ainsi rien ne m'oblige à refuser l'impression d'un ouvrage, de l'édition duquel on peut espérer quelque utilité. (Descartes 2002, 190, AT 4.255-6)

The analogy between Cartesianism and enthusiasm was not just about obscurantism; as we will see in Chapter 4, it was also about the authoritarianism which bound such movements together in place of reason. Descartes and his fellow modernisers may have decried the abuses of authority with the Aristotelian tradition, but, for Voetius and Schoock, Descartes was attempting to reproduce such abuses within his own nascent school. When the Utrecht anti-Cartesians made such attacks, Regius himself was often their prime example of someone duped by Cartesian extravagances; he had every reason to be sensitive to such criticism, and to defend '[sa] qualité d'homme d'honneur', as he put it earlier in the letter, against Descartes' intrusions.[117] But his *retranchements* and his warnings about Descartes' perceived abuses of authority did not satisfy. Descartes publicly condemned the *Fundamenta Physices*; in response, Regius put out a sheet of twenty-one theses to be displayed in public, representing his philosophy in uncensored form. No copies of the original survive; according to Descartes, it was titled 'Explicatio mentis humanæ, sive animæ rationalis, ubi explicatur quid sit & quid esse possit'.[118] While these did not explicitly use Descartes' name, many were unambiguously Cartesian; theses 2, 3, and 13, however, represented material Regius had cut from the *Fundamenta Physices* at Descartes' request.[119] The broadsheet ended with an epigram, taken without attribution from Descartes' dedicatory epistle to Elisabeth from the Latin edition of the *Principia*, which in its new setting echoed the Voetian attack on Descartes' fraudulence: 'Nulli faciliùs ad magnam pietatis famam perveniunt, quàm superstitiosi & Hypocritæ' ('None achieve a reputation for piety more easily than the superstitious and the hypocritical', 8.2.346, quoting 8.1.2; CSM 1.296, translation altered). Not all printings of the broadsheet named Regius as the author, but at least one did, enough for Descartes to worry that others would take Regius to be speaking for him. He responded by publishing the *Notæ*.[120] At their outset, he emphasised that

[117] For such an attack on Regius, see Schoock 1643, 36-7, translated at Descartes and Schoock 1988, 198-9.
[118] Our knowledge of the text comes from version of it Descartes gives in his response; see AT 8.2.342-6.
[119] Descartes 2002, 153n11 and 154n12.
[120] For more on the context of the *Notæ* and the circumstances of their publication see Verbeek 1993c.

he was motivated to write by fear that Regius would be understood to speak for Cartesianism, and that his views on substantial union would be taken as Descartes' own:

> [D]icitur autem jam antea typis mandatus fuisse sub aliâ forma cum adjuncto nomine cujusdam, tanquam Authoris, quem multi putant non alias quàm meas opiniones docere: cogor detegere ejus errores, ne mihi fortè imputentur ab illis, qui casu incident in obvias istas chartas, & mea scripta non legerunt. (AT 8.2.342)
>
> [I]t is said that in an earlier printing of the sheet in a slightly different format, a certain individual was named as the author — one regarded by many as propounding doctrines identical to mine. I am therefore forced to expose his errors, so that those who come across these papers without having read my own writings will not attribute them to me. (CSM 1.294)

Despite Regius's efforts, the break was complete. The prefatory letter to the first edition of the *Fundamenta physices* had included a reference to the 'Incomparabilis Philosoph[us], Renati des Cartes'.[121] The second edition, which appeared in 1654 under the new title of *Philosophia naturalis*, edited out all mention of Descartes' name.[122]

Descartes, whose own relationship with his teacher Beeckman was notoriously fraught, thus finds himself defending his project against his own students. In doing so, his critics charge, Cartesianism becomes the site for abuses of authority as grave as any found within scholasticism. The next chapter fleshes out the picture of Descartes' approach to teaching in the *Discours* given above. What special role did examples play in this account? How were the risks arising from a project like Descartes' conceived, by Descartes and by his contemporaries? How seriously did Descartes take them?

[121] Regius 1646, a2^{v}.
[122] Compare Regius 1654, a2^{v}-3^{r}.

2. Teaching scepticism: Descartes on risk

Introduction: refusing to argue

There are many moments in the *Essais* where Descartes refuses to give arguments. His reasons often relate to the essay's intended use and the readership he consequently envisions for it. In the 'Dioptrique', for instance, which is supposed to explain the theoretical elements of optics to engineers designing and manufacturing lenses, Descartes omits mathematical arguments that are too hard or insufficiently practical:

> Je n'adjouste pas icy les demonstrations de plusieurs choses qui appartienent a la Géométrie : car ceux qui sont un peu versés en cete science les pourront assés entendre d'eux mesmes, & je me persuade que les autres seront plus ayses de m'en croire, que d'avoir la peine de les lire. (AT 6.224-5)

By the 'Géométrie', by contrast, Descartes has stopped omitting arguments because they are hard. But new reasons for refusal have arisen. He leaves out proofs to remind the reader of his own skill: 'cela leur face d'autant plus estimer l'invention des choses qui sont icy demonstrées' (440). The final paragraph of the essay (and so the book) is particularly rich in gestures of omission: leaving things out helps Descartes keep his book focused ('mon dessein n'est pas de faire un gros livre'); the arguments given are sufficient to show his reader how to continue ('il ne faut que suivre la mesme voye'); and giving further demonstrations would deny his readers the pleasure of finding them independently: 'j'espere que nos neveux me sçauront gré, non seulement des choses que j'ay icy expliquées, mais aussy de celles que j'ay omises volontairement, affin de leur laisser le plaisir de les inventer' (485). Such gestures can also be visual. Discourse Eight of the 'Dioptrique' contains two proofs related to the focal points of elliptical and hyperbolic lenses (169-85). Unlike the proofs he will offer in the 'Géométrie', Descartes' discussion here is entirely non-algebraic, and is conducted solely with reference to his diagrams; simply looking at these should be enough to produce conviction: 'Et tout cecy

est, ce me semble, si clair, qu'il est seulement besoin d'ouvrir les yeux & de considerer les figures pour l'entendre' (185).[1]

Such gestures do not occur only in the *Essais*. When, in the passage just quoted, Descartes draws a distinction between readers who can 'assés entendre d'eux mesmes' and those who 'seront plus ayses de m'en croire', he is recalling a taxonomy of his readership established in the *Discours*. The *Discours* passage described three sorts of reader:

> Ceux que Dieu a mieux partagez de ses graces, auront peutestre des desseins plus relevez ; mais je crains bien que cetuy-cy [i.e. d'imiter mon ouvrage] ne soit desja que trop hardi pour plusieurs. La seule resolution de se défaire de toutes les opinions qu'on a receuës auparavant en sa créance, n'est pas un exemple que chascun doive suivre ; et le monde n'est quasi composé que de deux sortes d'espris ausquels il ne convient aucunement. A sçavoir, de ceux qui, se croyans plus habiles qu'ils ne sont, ne se peuvent empescher de précipiter leurs jugemens, ny avoir assez de patience pour conduire par ordre toutes leurs pensées : d'où vient que, s'ils avoient une fois pris la liberté de douter des principes qu'ils ont receus, & de s'escarter du chemin commun, jamais ils ne pourroient tenir le sentier qu'il faut prendre pour aller plus droit, & demeureroient esgarez toute leur vie. Puis, de ceux qui, ayant assez de raison, ou de modestie, pour juger qu'ils sont moins capables de distinguer le vray d'avec le faux, que quelques autres par lesquels ils peuvent estre instruits, doivent bien plutost se contenter de suivre les opinions de ces autres, qu'en chercher eux mesmes de meilleures. (15)

The gesture of omission in the 'Dioptrique' passage is motivated by the didactic purpose of that text: Descartes is worried about losing his reader. The topic of the *Discours* passage, by contrast, is the danger associated with undertaking systematic doubt, and the stakes are higher: readers not suited to Descartes' arguments will 'demeur[er] esgarez toute leur vie'. Scepticism provides the paradigmatic case of arguments which put those who encounter them at risk, and which therefore raise questions about the responsibility of those presenting them. These concerns about sceptical arguments leading to *esgarement* were widespread in the period, and we know from Descartes' correspondence that they shaped the composition of the *Discours*. In a 1637 letter to Mersenne, he said he had omitted arguments for

> la fausseté ou l'incertitude qui se trouve en tous les jugemens qui dependent du sens ou de l'imagination […] de peur que les esprits foibles venant à embrasser d'abord avidement les

[1] For Descartes' use of diagrams in the *Essais* and his visual proofs, see Eastwood 1984, Galison 1979 and 1984, and Lüthy 2006. For the broader question of the role of the visual in Descartes' thought, particularly in connection with the imagination, see Sepper 1989 and 1996, and Zittel 2009. For the genesis of Descartes' optics and its context, see Sabra 1967, Chapter 4. For broader treatments of the use of diagrams within natural philosophical writing from the period, see Daston and Galison 2007, Eastwood 1989, Kemp 1990, and Kusukawa and Maclean 2006.

> doutes & scrupules qu'il m'eust fallu proposer, ne pussent apres comprendre en mesme façon les raisons par lesquelles j'eusse tasché de les oster, & ainsi que je les eusse engagez dans un mauvais pas, sans peut-estre les en tirer. (AT 1.350)

He repeated the same account the next year in a letter to Vatier, a Jesuit priest and another alumnus of La Flèche: he had deliberately restricted what he set out to teach in the *Discours* — 'mon dessein n'a point esté d'enseigner toute ma Methode dans le discours où je la propose' — because the sceptical arguments which ground his proof of the existence of God 'ne m'ont pas semblé estre propres à mettre dans un livre, où j'ay voulu que les femmes mesmes pussent entendre quelque chose' (559-60). Descartes' concern is that sceptical arguments may be easier to understand than anti-sceptical ones, and consequently that his readers — represented here at their most vulnerable by his female readers — may undertake doubt without being able to use the tools he provides to counter it.[2] Descartes did eventually give a full account of his sceptical arguments in the *Méditations*; as we will see in Chapter 4 below, the asymmetry between the availability of those arguments and the availability of their solutions became one of the central topics in early anti-Cartesian polemics.

The chapter proceeds as follows. In the first section, I set Descartes' concerns about *esgarement* in context. It was widely accepted that the forms of ancient scepticism which had been recovered and adapted in the late Renaissance posed a threat, particularly to the young. This consensus gives the framework for Descartes' own treatment of the dangers of scepticism, in the *Discours* and afterwards. In the second section, I discuss his approach in the *Recherche de la vérité*, the *Discours*, and the French edition of the *Principia*. I focus particularly on Descartes' description of the *Discours* as an exemplary text; that description, I argue, is a way of negotiating, and even disavowing, responsibilities which arise in teaching such dangerous material. The events surrounding the publication of the *Discours* form other moments in this negotiation; that is the topic of the final section.

[2]For Descartes' female audience see Atherton 1993, Gallagher 1988, Lennon 1992, Perry 1985, and H. L. Smith 1982. There are several prominent cases of women, notably Anne Conway and Elisabeth, effectively beginning their philosophical training through correspondence with Descartes: see Broad 2002, 5-6, and Hutton 1994, 3. For the question of whether the underlying anthropology of Cartesianism is gendered, see Bordo 1999 and Broad 2002.

2.1 The dangers of teaching scepticism

Even for those attracted to Pyrrhonic argument, engagement with scepticism was not to be taken lightly.[3] It brought with it a risk to the inquirer, although this risk was not faced uniformly by everyone who came into contact with it: it was more dangerous for some. So, two thirds of the way through the 'Apologie de Raimond Sebond', one of the centrepieces of the early modern reception of Pyrrhonism, Montaigne interrupted himself with an apostrophe to an unidentified noblewoman, warning her about the dangers of his style of thought:

> [A] [C]e dernier tour d'escrime icy, il ne le faut employer que comme un extreme remede. C'est un coup desesperé, auquel il faut abandonner vos armes pour faire perdre à vostre adversaire les siennes, et un tour secret, duquel il se faut servir rarement et reservéement. […] [B] il est peu d'ame si reiglées, si fortes et bien nées, […] qui puissent […] voguer en la liberté de leurs jugements au delà des opinions communes. (Montaigne (2004) 2004, 557-9)

In Montaigne's 1580 text, it is specifically the noblewoman ('vous') that this caution is addressed to: as in Descartes' letter to Vatier, it is his female reader who is particularly vulnerable.[4] But in his additions Montaigne broadened his image of the sort of person unsuited to scepticism: those who are able to face such arguments safely are 'bien nées' and 'bien reiglées'; those whom scepticism endangers are either not noble enough or not educated well enough.[5] Montaigne's own account of reading Sebond is bound up emphatically with his own youth and the projects set for him by his father (438-40).[6] Among writers on scepticism between the mid-sixteenth and the mid-eighteenth century, both sympathetic and hostile, there was broad agreement with Montaigne on three points: that scepticism was powerful, and could deeply affect the lives of those who came into contact with it; that particular sorts of reader were particularly vulnerable to the risks of scepticism; and that the young were one of those sorts of reader, and a particularly important one. People could live their scepticism; in the worst cases, they could be compelled to live it.[7] The countervailing thought, that scepticism does not have such

[3] The main treatment of early modern scepticism in Europe remains Popkin 2003, and much subsequent work on the topic is a response to this: see, for instance, Maia Neto and Popkin 2004 and 2009, and J. D. Popkin 2008. For criticism of Popkin's claim that there was a generalised 'crise pyrrhonienne' in the sixteenth and seventeenth centuries, see especially Ayers 2004, Maclean 2006, and Perler 2004b, and for concerns about his treatment of Descartes in particular, see Roux 1998. Popkin's work focuses primarily on the reception of Pyrrhonism. For the largely simultaneous reception of Academic scepticism in the period, see Schmitt 1972 and Zerba 2012, Part 3.

[4] See Scholar 2010, Chapter 2. A related treatment of this apostrophe comes in Cave 2009, 109-29, which is an updated version of Cave 1999-2001, 35-50.

[5] Scholar 2010, 108.

[6] See also the dedicatory epistle to his father which prefaces Montaigne's translation of Sebond (Sebond 1569).

[7] See Introduction above.

power, only became prominent in the late seventeenth century. This was sometimes presented as a consequence of Descartes' thought, as in Arnauld and Nicole's *Logique*:

> Et il ne faut pas craindre qu'il y ait des hommes qui demeurent serieusement d'accord de cette consequence, que nous ne sçavons d'aucune chose si elle est vraye ou fausse en elle-mesme. Car il y en a de si simples & de si evidentes, comme, *Je pense : Donc je suis*: *Le tout est plus grand que sa partie*, qu'il est impossible de douter serieusement si elles sont telles en elles-mesmes que nous les concevons. (Arnauld and Nicole 1662, 399)

The position became more widely available by the seventeenth century; in mid-century, Hume could dismiss the power of Pyrrhonic scepticism to shape everyday life: 'tho' a *Pyrrhonian* may throw himself or others into a momentary Amazement and Confusion […]; the first and most trivial Event in Life will immediately put to flight all his Doubts and Scruples'.[8] In the first part of this section, I discuss how authors who, like Montaigne, were sympathetic to the new forms of scepticism available in their day handled the claim that sceptical argument endangered at least some of those who encountered it. In the second, I say more about how the audiences vulnerable to these risks were conceived of, particularly by those hostile to scepticism.

2.1.1 Troubles faced by sympathetic approaches to scepticism. Two major ancient sources of Pyrrhonic argument became newly available in the sixteenth century: Sextus Empiricus's *Outlines of Scepticism* and *Against the Mathematicians*, and Diogenes Laertius's account of Pyrrho in *Lives of Eminent Philosophers*.[9] Sextus's text consisted primarily of the arguments used by different Pyrrhonic schools, while Diogenes' text gave more prominence to Pyrrho's biography and way of life.[10] Montaigne, we have seen, pictured the arguments received in these texts as 'tours d'escrime', and the weaponised view of sceptical arguments became a prominent way of endorsing their use: scepticism was a 'machine de guerre', to be deployed against an opponent's dogmatic positions.[11] The justification featured prominently

[8] Hume 1748, 248; see also 246, and Hume (1978) 1978, 187, 214, and 218. Hume settles on what he calls a 'mitigated scepticism' (Hume 1748, 251). For sixteenth- and seventeenth-century predecessors to this mitigated scepticism, see Popkin 2003, 11-13 and Chapter 7.

[9] For the history of Sextus Empiricus's reception in the Renaissance and seventeenth century, see Floridi 2002. Popkin 2003, 18-19 incorporates Floridi's work. For the early textual history of the *Lives* see the introduction to Diogenes 2013, and for editions produced in France in the sixteenth and seventeenth centuries see Santinello, Blackwell, and Weller 1993, 154-60, and Ribard 2003b, 63-83. For overviews of these new sources and their reception, see Clarke 2016, Chapter 2; Hamlin 2005, Chapter 1; Popkin 2003, Chapter 2; and Schmitt and Skinner 1988, 678-9.

[10] For more on the different sorts of life-writing available in the early modern period and its connection to philosophy, see Celenza 2013 and Ribard 2003b. Pierre Hadot's work has been particularly influential in calling attention to the importance of ways of life in ancient philosophy, as well as in early modern authors like Ignatius: see Hadot 1981 and 1995 and, for an approach to Descartes heavily influenced by Hadot, Volpilhac 2015, 582-98. For a view critical of Hadot, see Cooper 2012.

[11] Popkin 2003, 68-78, and also Popkin 1960. The phrase itself occurs in the dedicatory letter to Veron 1637.

in the paratexts to new editions of sceptical works: in the dedicatory letter to his Latin translation of *Against the Mathematicians*, for instance, Gentian Hervet promised that the book 'non parvam […] suppeditabit copiam argumentorum adversus nostri temporis hæreticos' ('will offer no small supply of arguments against the heretics of our time').[12] A second set of justificatory metaphors pictured sceptical arguments as medicine. Elsewhere in the 'Apologie', Montaigne compared Pyrrhonism to a purgative, like 'la rubarbe qui pousse hors les mauvaises humeurs'.[13] Once again, the image found its way into the paratexts of new editions: in his dedicatory letter to the Latin translation of *Outlines of Scepticism*, Henri Estienne framed his translation of the text as a driving force in his recovery from a bout of malaria.[14] Such images drew on a traditional conception of philosophy (sceptical or otherwise) as *medicina mentis*, stated most influentially in the *Tusculan Disputations*; this remained alive well into the seventeenth century, where authors like Dannhauer and Clauberg used the topos to describe the value of a modernised logic to their readers.[15] Medical images also keyed into a tradition of actual medics producing sceptical work. Diogenes portrayed Hippocrates himself as a sceptic.[16] Sextus was a doctor, and was sympathetic in the *Outlines* to people who saw similarities between Pyrrhonism and the Methodist school of medicine.[17] The professional connection was maintained into the early modern period, with medics like Francisco Sánchez and Martín Martínez producing important texts of Pyrrhonic and Academic scepticism.[18] Sánchez and Martínez were not just theorists, and sought a practical connection between philosophy and medicine; the demand for such a connection only grew over the course of the seventeenth century as the rationalists, in particular, increasingly judged the quality of a philosophy by its ability to produce visible progress in medicine.[19] The link between scepticism and medicine was also recognised, and exploited, by authors hostile to Pyrrhonic arguments. At the close of his *Entretien* with Pascal, Sacy compares his interlocutor to 'ces médecins habiles qui, par la manière adroite de préparer les plus grands poisons, en savent tirer les plus grands remèdes'.[20] But if Pascal can handle this material safely, this does not mean that his readers can; the medical metaphor only highlights the dangers of the material:

[12] Sextus 1569, Dedicatory Letter, ã2^{r}. For more on Hervet's letter, see Cave 1999-2001, 33-5.

[13] Montaigne (2004) 2004, 527. For more on this image see Brancher 2004, and for connections between medicine and Pyrrhonism in the Renaissance more generally see Pittion 1987.

[14] Sextus 1562, Dedicatory Letter, especially A1^{v}-A2^{r}. For more on this text see Cave 1999-2001, 31-3 and 35-9.

[15] See Disputations 3.1 and 4.14. For the use of the metaphor among logicians, see Savini 2006, 83-5.

[16] *Lives*, 'Life of Pyrrho', 9.73. For links between scepticism and medicine in the classical world, see Allen 2010, Frede 1987, and Viano 1981.

[17] *Outlines*, 1.34. For an overview of the schools of medicine in the period see Laursen 2003, 305-10.

[18] On Sánchez, see Lupoli 2009, especially 156. For Martínez, see Laursen 2003.

[19] Shapin 2000.

[20] Pascal 1994, 128.

> [Sacy] conseillerait toujours à ces personnes de ne pas s'exposer légèrement à ces lectures [i.e. of Epictetus and Montaigne], de peur de se perdre avec ces philosophes, et de devenir le jouet des démons et la pâture des vents, comme ces philosophes l'ont été: *Quid est aliud pascere ventos quam ipsos dæmones, hoc est errando eis esse voluptati atque derisui?* [What is it to 'feed the winds' if not to feed the demons, that is, by one's errors to become an object of delight and derision to them?] (129, quoting *Confessions* 4.2.3, in turn quoting Proverbs 10:4 or Hosea 12:1)

Descartes is not explicitly mentioned as a 'jouet des démons', but he is condemned implicitly: Pascal's purported description of Montaigne's scepticism is heavily Cartesian, and includes, for instance, the *malin génie* argument.[21] As we will see in Chapter 4 below, much of Martin Schoock's attack on Descartes during the Utrecht Quarrel of the 1640s was structured around an image of Descartes as a careless doctor, too willing to lead his readers into trouble — or, to return to our first set of metaphors, of Descartes' anti-sceptical arguments as deliberately ineffective war machines.

Other justifactory strategies were available to authors presenting the life of Pyrrho, rather than his bare arguments. The crudest of these, intended to cover all the philosophers discussed in the *Lives*, simply offered the philosopher as a exemplar of virtue for the reader to learn from.[22] For instance, when François de Fougerolles (himself a doctor) produced the first French edition of Diogenes in 1601, he wrote that

> je [fais] voir aux François le meilleur auteur de tous les Grecs, tant à cause de l'excellente doctrine, qui y est contenue, que des beaux & notables exemples de vertu, par lesquels on peut chasser l'ignorance de l'esprit, & bien conduire ceste vie. (Diogenes 1601, Dedicatory Letter, †5^{r})

But there were problems with reading the 'Life of Pyrrho' as exemplary. Diogenes' biographies often contained a mix of admirable features, ripe for emulation, and far less dignified episodes, and his life of Pyrrho was particularly marked by such incongruities:

> [Pyrrhon] tachoit de rendre sa vie conforme à sa doctrine: il n'y avoit rien, qui le fist destourner de son chemin, pas mesmes les chariots, les chiens & precipices, tant il estoit resolu à soustenir indifferemment toutes choses, & de ne donner aucune croyance à ses sentimens. Toutesfois […] ses servitors & domestiques venans aprez se prenoyent garde, que mal ne lui avint […] (Diogenes 1601, 658)

[21] Pascal 1994, 107. See further Ribard 2003a, 265-6.

[22] For recent work on exemplars in the early modern period, see Gelley 1995, particularly Chapters 2-4, Hampton 1990, Koselleck (1979) 2004, Chapter 2, and Lyons 1989. For more on exemplarity in ancient Pyrrhonism, see Needham 1985, Chapter 2.

This was a portrait of a life made ludicrous by scepticism, and those who were sympathetic to Pyrrhonic arguments needed a way of explaining how to take Diogenes' account seriously; as La Mothe Le Vayer put it in the first sentence of his chapter on Pyrrhon in *De la vertu des payens*: 'Si Pyrrhon avoit esté tel que plusieurs l'ont representé, je ne pense pas que personne eust voulu suivre ses sentimens, & nous serions mesme ridicules de nous amuser à les examiner'.[23] What were their options for approaching Diogenes' account? Firstly, they could confront the problem head on, maintaining that the value of the *Lives* came from the exemplars of virtue it described, but recognising that some of Diogenes' characters did not serve the purpose. Henri Estienne's dedicatory letter to his bilingual Latin-Greek edition in 1570, for instance, offered an exemplary reading similar to Fougerolles', but acknowledged that some of Diogenes' subjects could hardly be called philosophers.[24] They could, secondly, develop a more sophisticated account of why such incongruities were present in the *Lives*. There were two ways to do this: they could accept that Pyrrho acted as Diogenes reported, and try to explain why, or they could decide that the undignified parts were invented, and try to explain Diogenes' intentions in including them. La Mothe Le Vayer briefly entertained the thought that Diogenes was telling the truth, and that Pyrrho's actions were part of a strategy: '[Pyrrhon a] fait comme Diogene le Cynique d'extraordinaire & de discordant, exprez pour ramener les autres dans une juste consonance morale'.[25] But he concluded, ultimately, that incongruities must be distortions introduced by Diogenes, because of their unlikeliness: 'on tombe d'accord qu'il [i.e. Pyrrho] vescut prez de quatre-vingt dix ans', for instance, and a man who lived to that age could not have behaved as recklessly as Diogenes reports; such reports are simply 'la calomnie de ses ennemis' (253-4). Thirdly and finally, they could abandon any sort of exemplary account. There were alternative justifications for publishing Diogenes which had nothing to do with moral usefulness. Particularly in the sixteenth century, philological reasons could play this role; such justifications are less common in the seventeenth century, the result of a general lull in philological work over the period.[26] Another way of pursuing this third option was to omit any justification for publishing the text, moral or otherwise. This approach was more easily available once modern editions of Diogenes were no longer a novelty: in Gilles Boileau's 1668 edition of the *Lives*, the first new French translation to appear after Fougerolles', he limits his prefatory texts

[23] La Mothe Le Vayer 1642, 252.
[24] Diogenes 1570, 4.
[25] La Mothe Le Vayer 1642, 252.
[26] For philological reasons for publishing Diogenes and other Pyrrhonic texts, see Popkin 2003, 37-8. For the lack of philological work in the seventeenth century, see Ribard 2003b, 51, and her Chapter 1 more generally.

to four and a half curt, extremely cautious pages of biography.[27]

Authors who were less tied to the texts of the *Lives* and the *Outlines* could be less cautious. Pierre Charron forcefully rejected the idea that sceptical arguments led to disorder, or that they were harmful to the young: Book 3, Chapter 14 of the first edition of *De la Sagesse*, titled 'Devoir des parens, & enfans', was dominated by a lengthy discussion of the relationship between Pyrrhonic attitudes to education and children's intellectual and moral flourishing.[28] (There is a similar, much briefer, discussion in Book 1, Chapter 43.) In part, the passage is a reworking of Montaigne's 'De l'institution des enfans', which may in turn echo Augustine's account of his education in the *Confessions*.[29] Charron reproduces the lines of Montaigne's argument, framing his discussion of teaching within a contrast between science and wisdom and emphatically opposing physical violence in education.[30] More specific features of Montaigne's text are transferred to Charron's: a quotation from Cicero's *De natura deorum* ('obest plerumque […]'), for instance, or the 'book of the world' commonplace, which is used by each in their discussion of travel.[31] But Charron gave a more straightforward, programmatic account of teaching than Montaigne. After an introduction on the importance of taking care when educating a child (633-6), and 'advis generaux' (keep harmful influences away, choose good people as teachers, and be kind, 636-40), he turns to a discussion of the aim and means of teaching (640-56). The point of teaching is to develop 'le naturel & propre bien' of the child; the contrast is with learning in order to 'amasser & aquerir de l'estranger' (641).[32] Charron quickly moves into an extended comparison between *sagesse*, which is taught by developing the natural skills and curiosity of the child, and *science*, which at its worst involves the rote presentation of facts with no care taken for the child's nature (641-53). The means of teaching *sagesse* are twofold (653-6).[33] One can teach 'par parolle': either by 'preceptes, instructions, & leçons verbales', or by 'conferences avec les honnestes & habilles hommes, frottant & limant nostre cervelle contre la leur' (653). Or else one can teach 'par faits', by which he means 'exemple & imitation' (654). Examples, Charron emphasises, need not be good examples:

[27] Diogenes 1668, 'La Vie de Diogene Laërce', ã2^{r}-ã4^{r}.

[28] For an overview of Charron's thought and his relationship to his predecessors, see Popkin 2003, 57-61, and Belin 1995. For Charron's moral thought more specifically, into which this account of parental duty fits, see Schneewind 1998, 52-6. All references are to the first edition of the text, Charron 1601. Subsequent editions were reworked, although the account of education is preserved; see the apparatus to the Fayard edition (Charron (1986) 1986) for changes between the different versions.

[29] *Essais*, 1.26. For the question of whether Montaigne read the *Confessions*, see Mathieu-Castellani 1998, 218-21. For the influence of Montaigne on Charron see Maia Neto 2014, 34-40.

[30] See Montaigne (2004) 2004, 146 and 166 for these two points, and compare Charron 1601, 648.

[31] For the quotation, see Montaigne (2004) 2004, 150 and Charron 1601, 656. For the book of the world, see Montaigne (2004) 2004, 152-3 and Charron 1601, 660.

[32] Descartes echoes this account of the *naturel bien* of the young in the *Letter to Voetius*; see Chapter 3 below.

[33] For Charron's conception of wisdom, see Maia Neto 2014, 26-8.

> L'autre par faits, c'est l'exemple, qui est prins non seulement des bons par imitation & similitude, mais encores des mauvais par disconvenance. Il y en a, qui apprennent mieux de cette facon par opposition & horreur de mal en autruy. C'est un usage de la justice d'en condamner un, pour servir d'exemple aux autres. (654)

This broad idea of exemplarity was not always registered in early modern treatments of examples: for Fougerolles, for instance, the only useful examples are good ones. The major French dictionaries, though, echoed Charron's concern for both positive and negative examples: Furetière has 'EXEMPLE. s.m. Ce qui est proposé pour imiter ou pour eviter'; the Académie has 'EXEMPLE. s.m. Ce qui est digne d'estre proposé pour l'imiter ou pour le fuïr'. (By contrast, Samuel Johnson's definition of 'exemplar', from the next century, is purely positive.)[34] Whichever means of instruction one chooses, the student will benefit from exposure to as broad a range of views as possible. Books are one source of diversity, but travel is best: 'Il n'y à point de meilleure escole pour former la vie, que voir incessamment la diversité de tant d'autres vies, & gouster une perpetuelle varieté des formes de nostre nature' (655). Charron closes with remarks on the good teacher's attitude toward the student (656-61), care for the student's body (661-2), and the student's moral education (662-4).

Charron's debt to the ancient sceptics is rarely explicit: Pyrrho is mentioned once in passing, and Sextus is not mentioned at all. In this, too, he follows Montaigne, who does not name Sextus in the 'Apologie'. But Charron goes further than Montaigne in refusing to acknowledge his sceptical sources. Charron's description of the 'universelle et plaine liberté de d'esprit' is a rewriting of Montaigne's account of Pyrrhonic *ataraxia* in the 'Apologie', one which elides the Greek term:

> C'est […] se tenir en repos & tranquillité, loin des agitations & des vices, qui viennent de l'impression de l'opinion & science, que nous pensons avoir des choses. Car de la vienent l'orgeuil, l'ambition, les desirs immoderez, l'opiniastreté, presomption, amour des nouvelleté, rebellion, desobeissance. Et puis apres c'est la doctrine & la practique de tous les sages, grands, & habiles esprits, desquels la plus part, & les plus nobles ont faict expresse profession d'ignorer & doubter […] (310)

In Montaigne's text, by contrast, this is explicitly marked as a Pyrrhonic attitude: 'leur Ataraxie [i.e. des Pyrrhoniens], qui est une condition de vie paisible, rassise, exempte des agitations que nous recevons par l'impression de l'opinion et science que nous pensons avoir des choses'.[35] Charron is constructing a more programmatic account of what education could be, and has an interest in downplaying its sceptical heritage where this could prove a stumbling-block to broader adoption. Unlike Montaigne,

[34] Needham 1985, 1.

[35] Montaigne (2004) 2004, 503. For more on these passages, see Maia Neto 2014, 37.

then, Charron deemphasises the specifically Pyrrhonic character of the attitude he is endorsing: later in the chapter he acknowledges that '[c]'est a peu pres & en quelque sens l'Ataraxie des Pyrrhoniens', but also 'la neutralité & indiference des Academiciens', 'le Souverain bien de Pythagoras', and even 'la vraye magnanimité d'Aristote' (312). This disguised *ataraxia* is one of the stances encouraged in the 'Devoir des parens, & enfans': '[s]'il [i.e. the student] ne sçait choisir, qu'il doubte, c'est peut estre le meilleur, le plus sain, & le plus sur' (661). At some distance from his discussion of education, nevertheless, Charron does register concerns about the risks of his approach: far earlier in the book, he writes that the 'esprit fort'

> [e]ntreprendra d'examiner tout, & juger la pluspart des choses plausiblement receuës du monde, ridicules & absurdes, trouvant par tout de l'apparance, passera par dessus tout : & ce faisant il est à craindre qu'il s'esgare & se perde […] (142)

A sceptical bent is simply the natural tendency of a 'vif & vigoreux' mind, and inevitably brings with it a risk of disorder: 'De grandes amitiés naissent les grandes inimitiés, des santes vigoreuses les mortelles maladies […] La sagesse & la folie sont fort voisines' (143).[36] Charron's own response to this fact is Stoic: such dangers are to be minimised by understanding the passions and submitting them to reason and natural law (160-1). This optimism about the power of reason within ethics marks the influence of the neo-Stoic Guillaume du Vair, and a distance from Montaigne's more thoroughgoing moral scepticism.[37] Nonetheless, there is a certain fatalism in Charron's approach: scepticism is a natural consequence of ability, and can be deployed fruitfully within the education of children, but its dangers can never be entirely excluded. How did Charron's opponents approach these dangers?

2.1.2 Who is put in danger by scepticism? A first option was to present scepticism as a threat on the largest possible scale, either as a danger to Christianity, and therefore society, or as a danger to society directly. The first of these ideas dated back at least to Augustine's *Adversus academicos*, and was used widely in the early seventeenth century.[38] In *L'Impieté des deistes* of 1624, Mersenne warned 'que si un homme n'est bien sur ses gardes en la lisant [i.e. *De la Sagesse*], qu'il court risque d'estre esbranlé en sa creance, et en sa religion', and in 1629 Jean de Silhon's *Deux véritez* attacked Montaigne and Charron's philosophy as leading to atheism: 'S'en est fait de la Religion Chrestienne, puis qu'on luy desrobe son

[36] The point is echoed at 275, on the dangers of solitude for the young; at 307, on presumption; and at 382, on moderation. For more on Charron's language of 'esprits forts' here, see Lojacono 2004a, 123-4, and Paganini 1987.

[37] Larmore 1998, 1154. For Stoic influences in Charron, see Horowitz 1971. Note, however, that Horowitz underplays the importance of scepticism in *De la Sagesse*: see Maia Neto 1995, 19-22.

[38] Clarke 2016, 36.

pied & son fondement'.[39] (The title of Silhon's book is itself an appropriation of a title of Charron's own, *Les Trois véritez*.[40] In a note after the errata to the 1626 edition, Silhon says he toned down his attack on contemporary Pyrrhonism before publication, as early readers had found his attacks too harsh: 'ne desirant que personne se blesse dans mes escrits […]'.) But the generalised risk could also be described in less immediately religious terms. The charge that scepticism undermined political order showed up particularly clearly in dedicatory epistles to aristocratic patrons, as with Mersenne's letter to the Dauphin at the opening of *La Vérité des sciences*.[41] Charles Cotin declared in his anti-libertine *Discours à Théopompe* that the sceptic 'déshonore nostre patrie'.[42] More constructively, an influential strand of political theory in the period, originating with Grotius, recognised that recovered forms of classical scepticism challenged basic conceptions of the structures of civic life: in the manuscript *De iure prædæ*, for instance, written between 1604 and 1606, Grotius had argued that philosophers had to take Academic arguments against the possibility of justice seriously, and the version of his argument published twenty years later in *De iure belli ac pacis* was influential on Hobbes.[43] The prominent tone for reasoning about the large-scale impact of scepticism on society, however, continued to be catastrophist, and changes in the character of scepticism over the course of the seventeenth century, in the wake of authors like Descartes, had little effect on the way such charges were made. In the early eighteenth century, we still find the theologian Jean Crousaz imagining the harms wrought by scepticism on the largest possible scale: 'Ces Maximes mènent à d'affreuses conséquences, & elles ne vont pas moins qu'à bouleverser la Société, & à faire du Genre Humain le plus affreux Cahos'.[44] Bayle, in particular, inspired such attacks.[45] In 1730, an anonymous letter in the *Bibliothèque germanique*, complaining about the success of Bayle's scepticism, pictured it as an infectious disease.[46] This gave a modern turn to the established set of metaphors linking scepticism with medicine: in spite of Renaissance medics like Fracastoro and Paracelsus, Galenism had hindered the development of theories of infection until the second half of the seventeenth century and the work of scientists like van Leeuwenhoek.[47] Infection

[39] Mersenne 1624, 184, and Silhon 1626, 425. For more on Mersenne's text, see Cavaillé 2006, especially paragraphs 14-18.

[40] For Charron's text, see Popkin 2003, 58-9.

[41] Mersenne 1625.

[42] Cotin 1629, 6.

[43] Grotius (2006) 2006, Chapter 2, and Grotius 1625, ã6^{r}, translated at Grotius (2005) 2005, 1.79. For Hobbes, see Tuck 1983, 59-62.

[44] Crousaz 1718, 'Avertissement', *2^{v}. For more on Crousaz, see Matystin 2012.

[45] See Crousaz 1733, particularly 338.

[46] See Matystin 2012 for more on this letter.

[47] For this picture of Galenism and for Fracastoro's role, see Nutton 1983 and 1990. See Pelling 1993, 316-21, and Rosenberg 1992, 294–99, for a history of theories of contagion up to the early modern period.

gave the anonymous author a model for how scepticism spread within an intellectual community:

> [C]'est une Contagion qui se répand & qui fait presque un ravage universel. […] Son [i.e. Bayle's] autorité & son air de persuasion impose à un autre ignorant qui, à son tour, affermit celui qui l'a trompé, dans ses erreurs & dans la fantaisie où il est de se donner pour un habile homme. (Anonymous 1730, 116-7, 136)

The letter is particularly interested in the role authority plays in the transmission of scepticism. (We will see in Chapter 4 below that Schoock detects similar abuses of authority in the success of Descartes' work.) Such an interest often led anti-sceptical authors away from large-scale accounts of the dangers of scepticism, and towards more closely focused descriptions of the abuses of scepticism, especially in relationships between authors and readers, and teachers and students. Charron framed his defence of scepticism in terms of the role it could play in education; his opponents employ much the same terms for anti-sceptical ends.

A widespread image for such relationships was that of the teacher leading the student along a path. Descartes favoured the image of the path as a metaphor for inquiry, and the language of *esgarement* or *esloignement* from the path became a ready way of picturing inquiry which had gone wrong: 'ceux qui ne marchent que fort lentement, peuvent avancer beaucoup davantage, s'ils suivent tousjours le droit chemin, que ne font ceux qui courent, & qui s'en esloignent' (AT 6.2). The image could be used to figure different relationships of dependency between teacher and student: in another of his taxonomies of his readership, Charron made

> une autre distinction d'esprits & suffisences, car les uns se font voye eux mesmes & ouverture ; se conduisent seuls. Ceux cy font heureux de la plus haute taille, & bien rares ; les autres ont besoin d'aide, mais ils font encore doubles ; car les uns n'ont besoin que d'estre esclairées, c'est assés qu'il y aie un guide & un flambeau, qui marche devant, il suyvront volontiers & bien ayseement. Les autres veulent estre tirés, ont besoin de compulsoire, & que lon les prenne par la main. (Charron 1601, 223-4)

And such images could, in turn, be appropriated by anti-sceptical writers for hostile purposes: Schoock compared Descartes to a general leading his soldiers '[p]er lutosam & paludosam viam' ('par le marais et des voies bourbeuses').[48] I say more about these metaphors of following in Chapter 4 below. Another common metaphor for the transmission of scepticism within personal relationships was that of poison. Garasse used the image throughout *La Doctrine curieuse* to attack sceptics, atheists, and libertines.[49] Little care was taken to differentiate the three groups: he attacked Charron's 'venin couvert

[48] Schoock 1643, 252, translated at Descartes and Schoock 1988, 310.
[49] References are to Garasse 1623.

de quelques douces paroles' (27); 'le venin' of the heretic Jean de Caturce's 'pernicieuse doctrine' (80); 'le venin' of Vanini's 'malice' (650); and atheists in general for spreading 'le venin de leur impiété' (805). For Garasse, the metaphor was useful for making two points about how sceptics harmed on those who came in contact with them. The first of these was about intention: Garasse pictured sceptics deliberately putting their readers in danger. More subtle critics retained his poison metaphor but dropped the point about intention, representing sceptics as unaware of the damage they did: four years after *La Doctrine curieuse* appeared, for instance, Jean Boucher, a theologian and former Rector of the University of Paris, attacked Montaigne and Charron for unwittingly endangering their readers with 'un doux venin qu'ils ont glissé par inadvertance (ainsi que je croy) dans leurs livres'.[50] (As we will see in Chapter 4, one of charges against Regius in the Utrecht Quarrel was that he did not understand the sceptical consequences that his work had, particularly in theology.) The second of Garasse's points was about dissimulation and vulnerability: with their 'douces paroles', the sceptics' poison initially seemed beneficial to their readers, and it required experience to spot the deceit. Childhood gave a metaphor for the innocence which would make one vulnerable to scepticism: Boucher closes his chapter on the French Pyrrhonists by describing *De la Sagesse* as 'un beau pré bien fleury : mais gardez vous enfans, car le serpent veneneux est caché parmy l'herbe'.[51] He is alluding to a passage from Virgil's Third Eclogue, easily adapted to Christian images of temptation: 'Qui legitis flores et humi nascentia fraga, / frigidus, O pueri (fugite hinc!), latet anguis in herba' ('Children who search the ground for berries and for lilies, / Run! Run away! Low in the grass, a cool snake hides').[52]

The connection with childhood is not just metaphorical: there existed a widespread claim that the risks of scepticism disproportionately affected the young. (There was classical precedent for this claim in the charge that Socrates — often viewed in early modern Europe as a champion of scepticism — corrupted the youth of Athens.)[53] Authors differed in how much substance they gave to this. Sometimes it was simply a topos, as when Mersenne remarked in the preface to *La Vérité des sciences*, in passing, that those most impressed by sceptical arguments were 'certains jeunes hommes […] portez au libertinage'.[54] Cotin gave more content to the claim, building into it an attack on the violent teaching methods of his day which led young people to such extremes. His attack on tyrannical masters

[50] Boucher 1627, 131. See Popkin 2003, 104.
[51] Boucher 1627, 132.
[52] Virgil 2010, ll. 93-4.
[53] See in particular *Apology* 24b-26a. For more on the figure of Socrates in the period see Chapter 3 below.
[54] Mersenne 1625, Preface, ã7^{v}. For more on Mersenne's text, see the introduction by Dominique Descotes in Mersenne (2003) 2003, and Clarke 2016, 2.5.

leaves him echoing Charron:

> Quelques personnes de maison que la rigueur des Maistres tyrannisoit en leur jeunesse, où elles n'aquirent qu'une fort legere conoissance des choses, n'ont pas esté plutost en âge de secouër ce joug insupportable, que par un vice ordinaire aux Ames foibles, elles sont tombées d'une extremitè en l'autre, & de la crainte servile au Libertinage. (Cotin 1629, 7)

A particularly rich discussion of the connection between youth and scepticism arose within the controversy in England in the early 1660s over Joseph Glanvill's reading of Descartes. Glanvill thought that Descartes' work motivated a generalised scepticism largely continuous with Pyrrhonism. He defended this, in 1661, in *The Vanity of Dogmatizing*.[55] Glanvill had been born in 1636, and in his dedicatory letter he emphasised his youth. His scepticism arose naturally from his age, and was partially justified by it: 'If any thing seem to you to savour too much of the *Pyrrhonian*: I hope you'l consider, that *Scepticism* is less reprehensible in enquiring years, and no crime in a *Juvenile exercitation*'.[56] Glanvill was appealing to the Charronian idea that this natural connection was the 'propre bien' of the young, and was to be encouraged; but while Charron had little respect for the wisdom of the old — 'la sagesse est trop noble pour se servir de tels officiers ; vieiller n'est pas assagir' —, he had not designed his account of education for purposes of self-exculpation.[57] Note that Glanvill's use of 'exercitation' to describe his book as the product of youth, expressing views which he might turn away from as he grew older, echoes Montaigne's sense of his *Essais* as exploratory *exercitationes*, but is quite different from Descartes' understanding of his own *Essais* as *specimina*, the first product of his intellectual maturity.[58] Glanvill's book attracted a harsh reply from the English Catholic theologian Thomas White (born in 1593). White's response, which appeared in Latin as *Sciri* in 1663 and in English as *An Exclusion of Scepticks* in 1665, was not a particularly conservative work, and was sometimes sympathetic to Descartes: he shared Descartes' distrust of scholastic probabilism and of overreliance on Aristotle, and viewed Glanvill's sceptical interpretation of Descartes as a misreading.[59] But he was not excited by Descartes, either: he found that partisans like Glanvill overstated the differences between Descartes and Aristotle, and that Cartesianism was of considerably less practical use than Aristotelianism.[60] White agreed with Glanvill that the young were particularly susceptible to scepti-

[55]Glanvill 1661. For Glanvill's reading of Descartes as a sceptic, and his endorsement of this scepticism, see for instance 73-4.

[56]Glanvill 1661, 'The Epistle Dedicatory', A3^{r}.

[57]Charron 1601, 207, and 1.36 more generally.

[58]See Chapter 1 above.

[59]For criticisms of scholasticism, see White 1663, 8, translated at White 1665, A3^{v}. For Glanvill having misread Descartes, see 128-9/75.

[60]126-7/73-4.

cism. He could not, however, accept that this susceptibility was benign. His preface is an address 'Junioribus Brittanicarum Scholarum Academicis' ('to the young witts of both universities'):

> [N]ihil publici caterii adactum ad ulcus *Glanvillanum* […] visum est silentibus potioribus ad meam infirmitatem devolutum esse onus […] Cogitate itaque, florentissimæ Britanniæ uberrima spes […] Cogitate (inquam) & serio ruminate in quid vivere & crescere moliamini, quosnam vos olim habitum iti speratis & concupiscitis; sapientesne & peritos gubernandorum morum & salutis Christianæ? an Rhetorum turbam […] greges vobis commissos in obvia præcipitia prodentium? (1-2)
>
> [H]earing no news of any publick Cauterization apply'd to that Tumour of *Glanvil*'s […] methought this silence of my Betters turn'd the task upon my weakness […] Reflect then O flourishing *Englands* fertilest hope! […] reflect, I say, and seriously ruminate what you strain to live and grow to; what persons you hope and covet to become hereafter: whether wise and skilful to govern Christian Life and Manners: or a crew of Rhetoricians, […] betraying those under your Tuition into all Precipices that fall in their way […] (A2^{r})

In the English text, White uses a variation on the infection metaphor: Glanvill's thought is a tumour spreading within the public body. (In the Latin, Glanvill is an *ulcus*, a sore, rather than a *tumor*.) White's description of the danger the young face when they engage with scepticism has two aspects. The young risk losing control of their own 'Life and Manners': we are back with the worry, present in Diogenes' 'Life of Pyrrho', that doubt may deeply disorder life. But the young also risk misleading others when they go on to have students of their own. The first point is about the dangers of scepticism to the individual. The second is about its dangers within an intellectual community, and particularly within a university: scepticism degrades one's ability to teach well.

2.2 Descartes on risk, teaching, and responsibility

How does Descartes handle these concerns about the risks of scepticism? I begin this section with an overview of three positions he takes. The *Recherche* and the *Discours* treat the danger seriously; it is possible to track a shift in Descartes' attitude by the end of his career, in the *Principia*, where he presents Aristotelianism, very broadly conceived, as an analogous but greater danger to the young. (I return to this conception of Aristotelianism in Chapter 3 below.) I then discuss the exemplary account of teaching which he offers in the *Discours*; this, I argue, is a way to disavow responsibility for the dangers his students may face.

2.2.1 Risk in three Cartesian texts. Descartes has three substantial discussions of the dangers of scepticism, in the *Recherche de la vérité*, the *Discours*, and the French edition of the *Principia*. The topic also

comes up more briefly elsewhere — for example, in his concern at the opening of Meditation Two that the meditator may not be able to resolve their doubts (AT 7.23/9.18). The passage in the *Recherche* begins shortly after Eudoxe has walked Poliandre through one version of the First Meditation dream argument (AT 10.511). Poliandre agrees the argument is strong enough to overturn 'toute la doctrine d'Epistemon', but worries that he might '[se] rendre un peu trop resveur' if he takes Descartes' argument seriously, given that he is 'un homme qui n'a point estudié' and is not used to arguing like this (512). Epistemon breaks in to echo Poliandre's concerns at a higher pitch, presenting the dangers as more serious, and describing them in a scholarly register that now includes explicit reference to Pyrrhonism:

> Je juge aussy qu'il est tres dangereux de s'y engager trop avant. Ces doutes si generaus nous meneroient tout droit dans l'ignorance de Socrate, ou dans l'incertitude des Pirroniens ; & c'est une eau profonde, où il [ne] me semble pas qu'on puisse trouver pied. (512)

Epistemon's final image echoes a Charronian metaphor, itself taken from Montaigne's 'Apologie': someone like Poliandre will not be able to *voguer* on these waters.[61] Eudoxe accepts Epistemon's description of the stakes involved in the dream argument. Poliandre is safe because Eudoxe is there to guide him: 'J'avoue qu'il y auroit du danger […] & que plusieurs s'y font perdue ; mais vous ne devés pas craindre d'y passer appres moy' (512). Poliandre is not necessarily young; he is certainly not a child, because his childhood is one of the sources of confusion which Cartesian arguments like this are to rescue him from.[62] But neither is he entirely independent; he needs a guide. Descartes has accepted the widespread thought that scepticism could be dangerous for those like Poliandre who had no experience in philosophy. Nor does he insist on distinguishing between the risks involved with Pyrrhonism and those which attach to the distinctively Cartesian arguments of the First Meditation. It is his own skill which is supposed to act as a check on the risk to Poliandre during the *Recherche*.

The widespread understanding of the risks of scepticism, and of Cartesian arguments, recurs in the *Discours*; the text offers a more complex view, by contrast, of Descartes' role as guide. As we saw in Chapter 1, Descartes closes out a series of metaphors drawn from architecture, city planning, and civic reform by denying that he has one of 'ces humeurs brouillons & inquietes' which take it upon themselves to bring about 'quelque nouvelle reformation' (AT 6.14-15). He continues:

> Jamais mon dessein ne s'est estendu plus avant que de tascher a reformer mes propres pensées, & de bastir dans un fons qui est tout a moy. Que si, mon ouvrage m'ayant assez

[61] Charron 1601, 143, which rewrites Montaigne (2004) 2004, 559, quoted above.
[62] For childhood as a source of error, see also AT 6.13, 7.17, 7.441, and 8.1.5.

> pleu, je vous en fais voir icy le modelle, ce n'est pas, pour cela, que je veuille conseiller a personne de l'imiter. Ceux que Dieu a mieux partagez de ses grâces, auront peutestre des desseins plus relevez ; mais je crains bien que cetuy-cy ne soit désja que trop hardi pour plusieurs. (15)

He then moves into the passage about different sorts of reader quoted at the beginning of the chapter, which, as we saw, centred on the fear that certain readers may '[demeurer] esgarez toute leur vie'. Descartes' description of his work as a 'modelle' presented '[sans] conseiller a personne de l'imiter' disclaims responsibility for such readers, and backs away from the offer to act as a guide for someone like Poliandre encountering sceptical arguments for the first time; I return to this claim in a moment. The taxonomy of his readers which Descartes has offered appears to be a reworking of a passage from *De la Sagesse*:

> [Il] y a trois sortes de gens au monde, comme trois classes & degrés d'esprits. En l'un & le plus bas sont les esprits foibles & plats, de basse & petite capacité, nés pour obeir, servir & estre menés, qui en effect sont simplement hommes. [Parmi la deuxième sorte] sont ceux, qui sont de mediocre jugement, font profession de suffisance, science, habilité […] [Ils] pensent que ce que lon croit en leur village, est la vraye touche de verité […] Ces gens sont de l'eschole & du ressort d'Aristote ; affirmatifs, positifs, dogmatistes, qui regardent plus l'utilité que la verité […] [Parmi la troisième sorte] sont les hommes doués d'un esprit vif & clair, jugement fort, ferme, & solide ; qui ne se contentent d'un ouy dire […] Ceux-cy sont en petit nombre, de l'eschole & ressort de Socrates & Platon […] (Charron 1601, 220-4)

It is generally assumed, on the basis of such close analogies between Descartes' work and Charron's, that Descartes knew *De la Sagesse* well.[63] That is likely, although not absolutely clear: we know that Descartes was given a copy of Charron's book in 1619, though if he read it closely he did not mark it up; features of this edition seem to be reflected in some of the *Olympica* dreams from the same period.[64] Charron is only mentioned by Descartes once in writing, in a 1646 letter to the Marquis of Newcastle (AT 4.575). *De la Sagesse* is likely one of the 'libros […] ab Academicis & Scepticis scriptos' Descartes refers to in the Second Objections (7.130/9.103). (CSM adds the word 'ancient' here; as Maia Neto points out, that obscures the fact that Descartes may well be talking about early modern sceptical writers.)[65] As we saw in Chapter 1 above, other modernising authors of Descartes' generation, like

[63] Maia Neto 2014, for instance, works on this assumption; see 108-9 for the claim that Descartes' taxonomy is based on Charron's. For the argument that Descartes should be conceived of primarily as a reader of contemporary sceptical authors, rather than the classical sceptics, see Paganini 2008b and, more generally, Paganini 2008a. That contrasts with a longstanding approach which defines Descartes' work primarily in terms of its departures from ancient scepticism: see, in particular, Burnyeat 1980b, 1980c, and 1984. For good general treatments of Descartes' relationship with ancient authors see Bermúdez 2000, Curley 1978, and Perrin 2008.

[64] Buzon 1992; see also Maia Neto 2014, 100-2.

[65] Maia Neto 2014, 98.

Gassendi, were more explicit about their debt to Charron. But the fact that Descartes did not write about an author does not mean he did not know them well. Seneca, for instance, is mentioned only after 1645, and then only in correspondence with Elisabeth, but the suggestion that the two of them study *De vita beata* comes from Descartes, and is clearly based on an existing familiarity with the text.[66] In any case, there are substantial divergences between the two taxonomies. Descartes' second sort of reader ('ceux qui, se croy[ent] plus habiles qu'ils ne sont') corresponds to Charron's second, although with an important modification: Charron's reader is explicitly an Aristotelian; Descartes', by contrast, does not belong to a particular school, and it makes most immediate sense to understand them as overenthusiastic sceptics (exercising 'la liberté de douter des principes qu'ils ont receus') than committed scholastics. Descartes' third sort of reader corresponds to Charron's first, although Descartes strips out Charron's derogatory language, and instead distinguishes them from his own second class by their virtue: they possess the 'raison' and 'modestie' to undertake only what they are suited to. Charron's third sort of reader are, in the *Discours*, 'Ceux que Dieu a mieux partagez de ses grâces'. Unlike Charron, Descartes dwells on such readers only in passing. In part, that is because his own biography serves as an extended example of 'un esprit vif & clair'; it is also because, in contrast to the *Recherche*, the *Discours* offers a significantly more restricted picture of Descartes' willingness, or ability, to lead others through potentially dangerous argument. He disavows interest in any project beyond the reform of his own mind. The point echoes a similar refusal to take on the role of teacher in 'De l'institution des enfans': 'Je n'ay point l'authorité d'estre creu, ny ne le desire, me sentant trop mal instruit pour instruire autruy' (148). Montaigne may not be Descartes' source here; nonetheless, it is striking that Charron's passage on teaching, which reproduces so much else of Montaigne's essay, does not have an equivalent moment of disavowal.[67] This is a rare moment where Descartes sounds more like Montaigne than Charron does. The ultimate source for such disavowals is Plato. Particularly in the *Meno*, the refusal to claim the role of teacher is used to draw a distinction between Socrates' own method and that of sophists like Gorgias.[68] Meno opens the dialogue by asking Socrates if virtue can be taught; that is what Gorgias claims, and Meno has been paying him for his teaching. Socrates responds ironically:

> [Gorgias] has given you this very habit of fearlessly and magnificently answering any question anyone asks […] But the situation here, my dear Meno, is quite the opposite: there has

[66] For a complete list of references to Seneca in Descartes' work see Meschini 2004, 319-20. For Cicero as another such example in Descartes' writing, see Chapter 3 below.

[67] For the question of whether Descartes read Montaigne, see Baudry 2015.

[68] See Nehamas 1990, 11, and more generally Nehamas 1985.

> been a drought of wisdom […] At any rate, if you want to put a question like that to one of the people here, any one of them will laugh and say: 'Stranger, you must think I am richly blessed, at least if you expect me to know whether virtue is teachable or how people come to have it'. […] I share my fellow-citizens' poverty in this matter. (70b-71b)

The disavowal is even blunter in the *Apology*, where Socrates defends himself against the charge that he has corrupted the youth of Athens: 'if you have heard from anyone that I undertake to teach people and that I make money by it, that is not true either' (19d-e). Descartes' refusal to serve as a guide to the dangers of scepticism is a recovery of a Socratic stance towards teaching, one which has been deemphasised in Charron. (I come back to Descartes' relationship with the *Meno* in Chapter 3 below.)

The third discussion of risk occurs in the 'Lettre de l'autheur' which prefaces the French edition of the *Principia*.[69] Uncharacteristically, Descartes' approach here is historical. He starts from a contrast between Plato and Aristotle, describing a conflict between their followers, continuing into the present day, which concerns 'si on devoit mettre toutes choses en doute, ou bien s'il y en avoit quelques unes qui fussent certaines' (AT 9.2.6). Both sides are guilty of 'des erreurs extravagantes':

> [Q]uelques-uns de ceux qui estoient pour le doute, l'estendoient mesme jusques aux actions de la vie, en sorte qu'ils negligeoient d'user de prudence pour se conduire ; & ceux qui maintenoient la certitude, supposant qu'elle devoit dépendre des sens, se fioient entièrement à eux, jusques-là qu'on dit qu'Epicure osoit assurer, contre tous les raisonnemens des Astronomes, que le Soleil n'est pas plus grand qu'il paroist. (6)

Note that Descartes groups Epicurus and his followers as part of the Aristotelian tradition: contemporary Epicureans like Gassendi are implicitly being sorted with the scholastics. As in the *Recherche* and the *Discours*, Descartes starts from the standard account of Pyrrhonism as dangerous for 'les actions de la vie'. But, in contrast to the earlier texts, he is no longer willing to treat this as a present danger. Pyrrhonism, perhaps in the modern form proposed by Montaigne and Charron, 'ne fut pas longtemps suivie', and is no longer a genuine threat (7). As a result, Descartes' project in the *Principia* is not primarily to guarantee the truth of his principles against sceptical doubt, and he is willing to ground his principles in the *consensus gentium*: '[mes principes] ont esté connus de tout temps, & mesme receus pour vrays & indubitables par tous les hommes' (10). His aim is, rather, to convince those who accept his principles that they are both theoretically elegant and practically useful, 'qu'il n'est point besoin de chercher d'autres Principes que ceux que j'ay donnez, pour parvenir à toutes les plus hautes connoissances dont l'esprit humain soit capable' (11).[70] Descartes' chief targets were

[69] For an extended discussion of this text, see Menn 1998a, 38-44, and Chapter 3 below.
[70] Menn 1998a, 38-40.

those who thought Aristotle had offered a minimal set of principles which could offer satisfying explanations of the natural world.[71] White (who had been unconvinced by Descartes) represented such an audience: 'Ea est Principiorum indoles ut nota et aspernanda appareant, nullus tamen omnino progressus in scientiis sine illis habetur […] Vobis esto Aristoteles paucorum quidem Magister, sed quæ sint fæcunda in millia' (''Tis the nature of Principles to appear vulgar and despicable; but there's not a step can be made in Sciences without them. […] For you, let *Aristotle* be your Master, of few things indeed; but those such as fructifie into thousands').[72] For as long as such reliance on Aristotle has not been 'entièrement ostée', as Pyrrhonism has been, it will continue to pose a threat analogous to that of scepticism (7). And here, emphatically, Descartes finds that the harmful effects fall disproportionately on the young, because they fall disproportionately on students, who are kept from 'la connoissance des vrays Principes' by Aristotle's dominance 'dans les escholes'. I return to Descartes' account of the parallels between Pyrrhonism and Aristotelianism in the next chapter. I turn now to Descartes' talk about displaying a 'modelle' in the *Discours*.

2.2.2 Teaching by example in the Discours. Descartes' insistence on the strictly private scope of his ambitions in the *Discours* has set him a problem. He needs to explain more clearly how he intends his personal example to teach others. Why is he writing if he doesn't want to teach?[73] It is in response to this that he says he will 'faire voir un modelle' of his life and work which may be useful for others. With the phrase 'faire voir', Descartes is coming back to an account of teaching he gave in the Part 1 of the text:

> Mais je seray bien ayse de faire voir, en ce discours, quels sont les chemins que j'ay suivis, & d'y representer ma vie comme en un tableau, affin que chascun en puisse juger, & qu'apprenant du bruit commun les opinions qu'on en aura, ce soit un nouveau moyen de m'instruire, que j'adjousteray a ceux dont j'ay coustume de me servir.
>
> Ainsi mon dessein n'est pas d'enseigner icy la Méthode que chascun doit suivre pour bien conduire sa raison, mais seulement de faire voir en quelle sorte j'ay tasché de conduire la miene. Ceux qui se méslent de donner des préceptes, se doivent estimer plus habiles que ceux ausquels ils les donnent ; & s'ils manquent en la moindre chose, ils en sont blasmables. Mais, ne proposant cet escrit que comme une histoire, ou, si vous l'aymez mieux, que comme une fable, en laquelle, parmi quelques exemples qu'on peut imiter, on en trou-

[71] Menn 1998a, 40-2 suggests that a humanist audience convinced by Charron's anti-scientism was the primary audience Descartes had in mind while writing the *Principia*. Given Descartes' dismissal of the seriousness of Pyrrhonism, however, this is unlikely.

[72] White 1663, 9-11, and White 1665, A3^{v}-A4^{r}.

[73] This is a version of what Richard Bett calls the 'Pyrrhonist's dilemma': what to write if you have nothing to say. See Bett 2013.

> vera peutestre aussy plusieurs autres qu'on aura raison de ne pas suivre, j'espere qu'il sera utile a quelques uns, sans estre nuisible a personne, & que tous me sçauront gré de ma franchise. (AT 6.3-4)

The passage is built around a contrast between two ways of teaching: one which aims to 'enseigner la Méthode [or 'les préceptes'] que chascun doit suivre'; and Descartes', which limits itself to displaying how an individual inquirer has 'conduit sa raison'. The two conceptions are distinguished by the way teachers are held responsible for errors in each of them. In the first case, the teacher is 'blasmable' any error or oversight in their work. By contrast, Descartes means his approach to avoid such responsibility. He fleshes that out with three metaphors — the *Discours* is like a *tableau*, an *histoire*, and a *fable* — and emphasises that he means it as an exemplary account, in Charron's terms: he will offer examples, which will either be good ones or cautionary ones, and it will be up to the reader to distinguish between them. I begin by saying something about who Descartes has in mind with the first way of teaching, and then about his good and bad examples; I close by discussing how his metaphors function as images of his exemplary approach.

Who did Descartes have in mind for the proponents of the first view, 'ceux qui se méslent de donner des préceptes'? In 'Devoir des parents, & enfans', Charron relied on a similar contrast with the 'style ordinaire' widespread in his day, 'qui est que le maistre parle tousjours seul, & verse dedans sa teste, comme dedans un vaisseau, tout ce qu'il veut'.[74] Descartes' remark is keyed more precisely to his autobiography: it comes immediately prior to his description of his experience with a modernised late scholastic curriculum at La Flèche, at the close of which he refers to his teachers as 'mes Précepteurs' (9). That curriculum was broadly based on Aquinas, whose own account of teaching is laid out extensively in 'De magistro', Question 11 of *Quæstiones disputatæ de veritate*.[75] Aquinas insisted that teachers, in Descartes' words, 'se doivent estimer plus habiles que ceux ausquels ils […] donnent [des préceptes]': 'magisterium importat relationem superpositionis, sicut et dominus' ('The office of teacher implies a relation of superiority, just as dominion does', art. 2, s. c. 3); 'Doctrina autem importat perfectam actionem scientiæ in docente vel magistro' ('[T]eaching implies the perfect activity of knowledge in the teacher or master', art. 2, co.). Descartes' remark about self-estimation seems, by contrast, to fit with a Socratic view of teaching as dialogue, in which both interlocutors may gain knowledge. Further,

[74] Charron 1601, 656.

[75] The other substantial account of education in Aquinas, which covers similar ground, is the *Summa theologiæ*, 1a 106, 111, and 117 (text and translation in Aquinas 1964-81). The Latin text of *De magistro* is in Aquinas 1970-6. The translation used here is Aquinas 1954, although Aquinas 1992 is a more recent critical edition (and includes a French translation). For questions about the dating of the text, see Walz 1962, 99-101. For the Thomism of the Jesuit schools, see Chapter 1 above.

Descartes conceived of precept-writers as those who wrote for a general audience; by contrast, he was not offering 'la Méthode que chascun doit suivre'. He made a similar contrast between the availability of his own work and that of traditional scholastic styles when he chose the form of the *Méditations*:

> Meditationes potius quàm, ut Philosophi, Disputationes, vel, ut Geometræ, Theoremata & Problemata, scripserim: ut nempe hoc ipso testarer nullum mihi esse negotium, nisi cum iis qui mecum rem attente considerare ac meditari non recusabunt. (AT 7.157)
>
> [J]'ay plutost écrit des Meditations que des disputes ou des questions, comme font les Philosophes, ou bien des theoremes ou des problemes, comme les Geometres, afin de témoigner par là que je n'ay écrit que pour ceux qui se voudront donner la peine de mediter avec moy serieusement & considerer les choses avec attention. (AT 9.1.123)

If Descartes' point about contrasting styles of teaching serves, in part, to portray him as Socratic teacher, it also keys into the *Discours*' taxonomy of its readership: unlike 'préceptes', some of his lessons will not be suitable for everyone.

How should we understand Descartes' claim that some of his examples should not be followed? Within the genre of exemplary autobiography, authors varied in the emphasis they placed on their own flaws.[76] As Cardano recognised in his *De propia vita*, the acknowledgement of vice was strategically important for a narrative to appear truthful:

> [I]llos qui legere sunt assueti propriam vitam scribentium Libros, non sinceram narrationem ab illis traditam videre, ut nos hic narramus: sed alios qualis esse debuerat literis mandasse, ut Antoninus: alios vera tradisse quidem, sed erroribus suis suppressis, ut Josephus; at nos maluimus veritati in hoc inservire, haud ignari, non habere excusationem ullam, qui peccat in moribus, quemadmodum in cæteris: Quis cogere potuit? (Cardano 1654, 40-1)
>
> Those who are used to reading writers' own autobiographical books are not used to seeing such a straightforward narrative set down as I mean to publish. Some authors have committed themselves to writing as they think they should be, like Antoninus, and others have given true accounts, but with all their shortcomings carefully suppressed, as Josephus did. I prefer to do service to truth, though well aware that one who transgresses convention cannot offer the same excuses as he can for other mistakes — but who's going to stop me? (Cardano (1930) 1930, 75-6, translation altered)

Closer to Descartes' own day, Constantijn Huygen's poem *De vita propria*, completed around 1678, plainly acknowledged the two ways in which his intended readers — his three sons and his son-in-law — might learn from his example: 'Si bene sic vixi, docui vos vivere; si sic / Non bene, non doceo:

[76] For exemplary autobiography as a genre in early modern France, see Lyons 1989, Chapters 3-5.

errores exempla mei sint / Ut scopuli vitanda' ('If I have lived well like this, I have taught you how to live; if / poorly, I do not teach: but let my errors be examples / like reefs to avoid').[77] Descartes' approach appears similar: some of his readers 'aura raison de ne pas suivre' his example. But there are two ways of taking his remark. On the first, Descartes' point is not that some of his examples are cautionary. Rather, his point is about the skill of his readers, and reproduces the lesson of his (and Charron's) taxonomy: some of his readers ought not to follow him, because it would do them harm. On the second, by contrast, Descartes' point is closer to the conventional one Huygens is making: he may not be a wholly virtuous example, and some of the examples he sets may be bad ones for anyone to follow. This second reading resonates with the passage immediately before the one quoted, where Descartes raises the possibility that he was deceived in thinking that the best life was 'celle que j'ay choisy' (3). He conceives the project of publishing his work as a new way to learn from the 'bruit commun' whether he is right or not. His work may in fact be 'de verre que je prens pour de l'or': the conventional analogy with sensory deception takes on increased substance in the light of his extended discussion of 'des hommes qui se méprenent en raisonnant' in Part 4 of the *Discours* (32), and from the far more extended discussion of publication in Part 6, which I return to at the close of the chapter.

How does the *tableau* metaphor picture the style of teaching Descartes describes in Part 2 of the *Discours*? It is possible to understand Descartes' first metaphor in entirely pictorial terms. In particular, given the autobiographical character of the *Discours*, critics have read Descartes as likening his text to a self-portrait.[78] But a *tableau* was also a genre of written text in the period, and Descartes may have been marking a similarity between such books and his own. Furetière and the Académie both take the pictorial sense of 'tableau' as primary, but both note that it also marks a genre. They differ, however, on what characterises it. For the Académie, a *tableau* is a text which contains vivid description, '[l]a representation naturelle et vive d'une chose'. Furetière is more specific. The texts must be descriptive, but they should also have a moral character: 'TABLEAU, se dit figurément en Morale, des descriptions et representations qui se font, soit de vive voix, soit par escrit, soit par des livres exprés, tant des choses naturelles que morales'. He gives three contemporary examples of such books: Nicolas Coeffeteau's *Tableau des passions humaines*, Pierre de Lancre's *Tableau de l'inconstance des mauvais anges et démons*, and the *Imagines* of Philostratus of Lemnos (which had first appeared in French translation in 1578).[79] The presentation of textual *tableaux*, with a powerful descriptive element, was often undertaken for the

[77] Constantijn Huygens (1807) 1807, 112. For more on this poem, see Blom 1998.

[78] That is the line taken by Grootenboer 2010, where Descartes is set alongside Dutch portraitists, and particularly Michael Sweerts.

[79] Coeffeteau 1620, Lancre 1612, and Philostratus 1578.

purposes of 'captation mondaine'.[80] In his 'Advertissement' to *Les peintures morales*, Pierre le Moyne described his strategy for 'l'instruction de Spectateur & du Lecteur, que je dois avoir en une mesme personne'.[81] His work was a defence of the beauty of scholasticism: 'j'avouë que je suis amoureux de cette belle Methode, & qu'elle me ravit par tout où je la treuve' (ẽ2^{v}-3^{r}). But a different edifice had to be constructed to attract the attention of libertines:

> Si j'avois basti un Temple en cet Ouvrage, les Libertins & les Impies, qui ne vont à l'Eglise que par force, le laisseroient pour les Devots : Si j'y avois erigé une Academie, il ne s'y presenteroit que des Philosophies : mais ayant fait une Gallerie de Peintures, la Curiosité y amenera des Devots & des Libertins, des Docteurs & des Cavaliers, des Philosophes & des Femmes ; & cependant qu'ils y seront occupez à regarder des Tableaux, la Verité prendra le temps de faire son devoir avec adresse, & selon les occasions qui se presenteront, elle convaincra les erreurs des uns, & gerira les maladies des autres, & par les images de leur vie, qu'elle tirera artificieusement sur celle des Morts, elle les forcera doucement à se condamner eux-mesmes sous des noms supposez […] (ĩ2^{v}-3^{r})

Le Moyne was a poet, and the pairing of *docere* and *delectare* here is taken from the *Poetics* and *Ars poetica*, and perhaps more immediately from early modern works like Scaliger's *Poetices*: 'Nanque Poeta etiam docet, non solùm delectat, ut quidam arbitrabantur' ('For the Poet also teaches, and does not just please, as some have thought').[82] While he emphasised the visual aspect of his work, his *tableaux* were predominantly textual: there were only seven engravings in the entire two-volume work.[83]

Furetière and Le Moyne's moral and textual approaches to the *tableau* genre help us see the continuity between this image and Descartes' later, more explicitly moral *fable* metaphor. Descartes introduced the term 'fable' to qualify his description of his work as an *histoire*. He did so for at least two reasons. The first was to absorb his work into a tradition of morally instructive writing: as La Fontaine wrote of his fables: 'en ces sortes de feinte il faut instruire et plaire'.[84] The second was to emphasise the fictional character of what he wrote. That was done partly in accordance with an emphasis, present throughout his writing, on his explanations as hypothetical.[85] It was also done to acknowledge the rearrangement and distortion which the facts presented in the *Discours* underwent in service of his moral ends. Descartes' account of his education shows such distortions particularly clearly: the transition from Part 1 to Part 2 of the text relies on a sharp contrast between 'l'estude des lettres' and

[80] For the term, see Cazanave 2007, Chapter 3.

[81] Le Moyne 1640-3, ẽ1^{r}. For more on Le Moyne's text, see Fumaroli 1994a, 379-91, Mantero 1987, and Teyssandier 2002.

[82] Scaliger 1561, 1. See further Cronk 1999, 200, and more generally Mallinson 1989.

[83] Teyssandier 2002, 92.

[84] *Fables*, 'Le Lion et le chasseur', 6.2.

[85] I return to this in Chapter 4 below.



Figure 2.1: Nicolas Poussin, *Les Israélites recueillant la manne dans le désert*, 1637-9 (Paris, Musée du Louvre). Photo: Réunions des Musées Nationaux/Mathieu Rabeau.

'[la science] qui se pourrait trouver en moymesme, ou bien dans le grand livre du monde' (AT 6.9), and strips out any relationship after La Flèche in which Descartes was not entirely independent. His apprenticeship with Beeckman in 1618-19, in particular, is completely elided.[86] The omission reflects, in part, Descartes' fractious relationship with his former teacher.[87] But it primarily serves a strategic purpose, allowing for a plainer contrast between the education offered in the schools and that which he achieved in the solitary pursuit of reason. Even if the *tableau* metaphor is primarily pictorial, we can still see these two reasons motivating Descartes' use of it, for the connection between narrative distortion and exemplary purposes was a major topic in seventeenth-century French aesthetics.

Nicolas Poussin's *Les Israélites recueillant la manne dans le désert*, completed in 1639 and almost precisely contemporaneous with the *Discours*, was central to this discussion (Figure 2.1).[88] (There is no

[86]For this apprenticeship, see Gaukroger 1995, Chapter 3.
[87]See in particular AT 1.24, and Gaukroger 1995, 223.
[88]For more on Poussin's image and its paratexts, see Marin 1995, particularly Part 1, and Unglaub 2006, 172-97.

record of Descartes and Poussin having met, although they may have crossed each other in Rome in 1624; Poussin probably did not know Descartes' texts directly.)[89] In a letter to Jacques Stella, Poussin described the style he had developed while working on the image:

> J'ay trouvé […] une certaine distribution pour le Tableau de M. de Chantelou, & certaines attitudes naturelles, qui font voir dans le peuple Juif la misere & la faim où il estoit réduit, & aussi la joye & allegresse où il se trouve ; […] choses, comme je croy, qui ne déplairont pas à ceux qui les sçauront bien lire. (Félibien 1666-88, 4.264, reproduced in Poussin 1989, 37)

This 'distribution' involved dividing the painting up into independent groupings of three or four figures, each illustrating an aspect of the Biblical narrative. In a conference at the Académie Royale de Peinture et Sculpture in November 1667, Charles Le Brun explained the groupings: at the farthest left, a mother with a child, nursing an old woman, perhaps her own mother, being watched by two men, one of them leaning on a cane; next to them, a young man helping an old man to stand; and so on.[90] As Poussin said in a letter to his patron Chanteloup on delivery of *Les Israélites*: 'les sept premières figures, à main gauche, vous diront tout ce qui est ici écrit, et tout le reste est de la même étoffe.[91] On Le Brun's reading, the figures were based on classical examples: 'la femme qui donne la mammelle à sa mere […] tient de la figure de Niobé', and '[l]e vieillard qui est couché derriere ces femmes, tire sa ressemblance de la statuë du Seneque qui est à Rome dans la vigne de Borghese' (87). At the centre of the painting are Moses and Aaron, surrounded by a group of men who have been collecting manna.[92] Le Brun read this as a scene of instruction, both through word and example, at the painting's core:

> [Le Brun] montra que Moyse en levant le bras & les yeux en haut, leur ensigne que c'est du Ciel qu'ils reçoivent ce secours ; Et qu'Aaron qui fait l'Office de grand Prestre en joignant les mains, leur sert d'exemple pour rendre grace à Dieu. (96)

The second half of Le Brun's conference discusses the distortions involved in Poussin's representation of the narrative. Poussin has the manna appearing in daytime, before the eyes of the Israelites, but Exodus 16:13 has it appearing at night, while they sleep. The woman nursing her own mother expresses 'grande necessité & […] extréme misere', but 'le peuple avoit déja esté secouru par les cailles, qui avoient esté suffisantes […] pour les tirer d'une necessité aussi pressante' (102). Such distortion is justified by the constraints of painting, 'le Peintre n'ayant qu'un instant dans lequel il doit prendre

The texts are collected in Poussin 1989, 37-47.

[89] Keazor 2003, 153 and 158-9.

[90] Félibien 1668, 80. Inline references in this section are to this edition.

[91] Poussin 1989, 45.

[92] For more on scenes of speech in Poussin's work, see Fumaroli (1994b) 1994.

la chose qu'il veut figurer' (103). Poussin's reordering of the story, a member of the conference adds, is acceptable because it maintains the Aristotelian unities which govern permissible departures from fact in the theatre: 'l'on ne pouvoit pas accuser M. Poussin d'avoir mis dans son Tableau aucune chose qui empesche l'unité d'action, & qui ne soit vray semblable' (105, misnumbered as 205). Félibien made the same point in his preface, emphasising the didactic purposes of the distortion: 'L'on peut […] dans de grands Ouvrages de Peinture pour instruire mieux ceux qui le verront, en disposer les figures & toute l'ordonnance, de telle sorte qu'on puisse juger de ce qui aura mesme precedé l'action que l'on represente' (ĩ1^{v}). But if these readings emphasised that Poussin deformed his sources in order to teach better, Poussin himself insisted that proper use of the disposition he had found would rely on the skill of the viewer: it will only *delectat*, and consequently *docet*, 'ceux qui […] sçauront bien lire'. The responsibility for handling the distorted narrative lay, as for Descartes, with the reader.

Descartes' exemplary account of teaching in the *Discours* is a way of negotiating responsibility for the dangers his readers may face. A second major site for such negotiation in the *Discours* is Descartes' discussion of his reasons for publishing; his concerns here extended into the actual practicalities of publishing, and particularly of obtaining a *privilège*. I turn to this now.

2.3 The publication of the Discours

Descartes makes two sets of remarks about publication in the *Discours*.[93] Taken together, they form a *récit de publication*, a small genre of its own in the period.[94] We have already seen, in the first of these, that Descartes claims to make his work public so that 'chascun en puisse juger'; this public assessment will give him 'un nouveau moyen de m'instruire' (AT 6.4). The second, far more extensive set of remarks comes in Part 6, and complicates Descartes' earlier account of his motivations (60-75). Descartes' discussion is famously tangled. Part 6 begins with his declaration that Galileo's censure by 'des personnes, a qui je defere & dont l'authorité ne peut gueres moins sur mes actions, que ma propre raison sur mes pensées' made him reconsider publishing *Le Monde*, which, like *Le due massimi sistemi*, was founded on the Copernican hypothesis that the earth moves (60).[95] (The Inquisition's ruling on

[93]For accounts of the publication of the *Discours*, see Armogathe 1990, Cavaillé 1994, Van Damme 2002, 237-64, Descartes (1637) 2006, xlii-xliii, Gaukroger 1995, 321-2, Schapira 2013, and Martin 1992. For publishing in the period more generally, see Chartier and Martin 1982-6, 1987, and 1996, Jouhaud and Viala 2002, and Schapira 2003.

[94]See Jouhaud and Viala 2002, which explores the genre and collects some examples of such *récits* at 23-4, 111-15, 211-17, and 301-6.

[95]See also his correspondence with Mersenne on the condemnation, AT 1.270-1.

Galileo had been controversial, even within Italy, and Descartes was probably wrong in thinking that he would have faced similar troubles in France.)[96] Such withdrawal is acceptable as long as he is only producing scientific results to satisfy his own curiosity, or working out how he ought to live. But as his results become more substantial, he says, he is obliged to publish: 'j'ay creu que je ne pouvois les tenir cachées, sans pecher grandement contre la loy qui nous oblige a procurer, autant qu'il est en nous, le bien general de tous les hommes' (61). That is partly because the results are immediately useful to others, and partly because publication allows others to contribute to the work where his own lack of time and money may otherwise hinder it. But there then comes a turn in his thinking: such obligations do not require him to publish during his lifetime and, given his disinclination to participate in 'oppositions & controverses', and given how useless the objections of others have been in the past, he would prefer not to (66-8). He will continue writing, though, because it is helpful for clarifying his thought (66). Then there is another turn: he *will* publish something, both to contradict those claiming that his hesitancy to do so is rather a matter of his having no results and because, however little he values help, his work is going so slowly that he must ask for it — if only to avoid reproach for not doing so in the case that his work fails (74-5).

Why include an extended *récit de publication* like this? Descartes' reasons were, in part, conventional: the *Discours* was a preface, not a standalone text, and it was commonplace to include accounts of a book's genesis within such paratexts.[97] A second motivation had to do with moral self-presentation. The first part of Descartes' *récit* was driven by a concern for the public interest. In the *Passions*, he described such concern as a defining feature of generosity: the generous person 'n'estim[e] rien de plus grand que de faire du bien aux autres hommes, & de mespriser son propre interest pour ce sujet, ils sont tousjours parfaitement courtois, affables & officieux envers un chacun' (AT 11.447-8). Descartes' choice to publish the *Discours* anonymously was another aspect of this show of virtue. Like most writers who published anonymously in the period, he did not expect his identity to remain a mystery.[98] Students in Utrecht, for instance, who had been anticipating Descartes' first book for years, had no problem identifying the author of the 'liber […] Gallicus, nullum authoris nomen præferens, quadruplicique titulo insignis e vulgatur' ('livre français, anonyme et remarquable par son quadruple titre').[99] Moral justifications for anonymous publication were theorised at length by Adrien Baillet in

[96]Gaukroger 1995, 291-2. For the politics of Galileo's condemnation, see Biagioli 1993, Chapter 6.

[97]See the introduction to Jouhaud and Viala 2002.

[98]See further Genette 1987, 42, Laugaa 1986, Parmentier 2013 (particularly Schapira's essay), and Tunstall 2011.

[99]Schoock 1643, Preface, *3^{v}, translated in Descartes and Schoock 1988, 158. For more on this passage, see Chapter 4 below.

the first volume of *Les Jugemens des sçavans*, and in *Auteurs deguisez*.[100] Baillet acknowledged reasons of self-interest for withholding one's name — 'pour éviter la peine ou la confusion d'avoir mal écrit', for instance.[101] But most of the motivations he identified were moral: authors remained anonymous 'pour éviter la recompense ou la loüange', or 'par un mouvement de pure humilité', of by 'un mépris de cette vaine reputation qu'on acquiert en écrivant', or because they see it as 'une bassesse & comme une espéce de deshonneur de vouloir passer pour Auteur' (470). Descartes' *récit* is part of a broader campaign of moral self-presentation undertaken in publishing the *Discours*.

There was a final, more distinctively Cartesian reason for including the *récit*. Descartes hesitated about publishing because he wished to avoid 'oppositions & controverses'. Publication will generate obligations to defend or explain his work: this is another version of his concern, in Part 1, to avoid being 'blasmable' for any errors or unhappy consequences arising from publication of the *Discours*. The circumstances surrounding the publication of his work, and particularly his argument with Mersenne about the *privilège du roi*, revealed a similar concern with responsibility. In order to have his book sold legally in France, Descartes was required to obtain a *privilège* for it. That had been the law since the Edict of Moulins in 1566, but it was only by the 1630s that the censorship of works came to be managed exclusively by royal power, through the office of the *chancelier*.[102] *Privilèges* were typically granted to publishers rather than authors, but Jean Maire, who put out the first edition of the *Discours*, was Dutch, and the chancellor (who apparently took a special interest in the case) did not want to grant a privilege to a foreign publisher.[103] Descartes was initially furious at the offer Mersenne negotiated on his behalf. The *privilège* was valid for ten years, and strongly implied that Descartes would publish a good deal more:

> A ces causes desirant gratifier ledit Des Cartes et faire cognoistre que c'est à luy que le publiq a l'obligation de ses inventions, nous avons par ces presantes accordé, permis, voulons et nous plaist, que le dit Des Cartes puisse faire et face imprimer toutes les œuvres qu'il a composées et qu'il composera touchant les sciences humaines […] (AT 6.518)

On Descartes' reading, the *privilège* 'me fait dire que j'ofre de donner au public d'autres traitez que ceux qui sont desja imprimez ; ce qui est contraitre à ce que j'ay écrit tant au commencement de la 77^{e} page du discours qui sert de Preface, qu'ailleurs' (AT 1.369; the page reference is to 6.78, where Descartes de-

[100] Baillet 1685-6 and 1690. For more on this aspect of Baillet's work, see Laugaa 1986, especially 195-221, Waquet 1988, and particularly Waquet 2013.

[101] Baillet 1685-6, 470.

[102] Schapira 2002, 122.

[103] For the institutional situation in Descartes' case, and particularly the role of the chancellor's office, see Schapira 2003, 103-4, 111, and 127-38.

clares that 'je ne veux point […] m'engager envers le public d'aucune promesse'). Descartes had tried to make the *Discours* a book which would incur no responsibilities. But, even before it had appeared, Mersenne had left him indebted to the chancellor:

> [V]ous serez cause que je luy auray une particuliere obligation, pour une chose que je voudrois bien qui ne fust point. Car outre que vous me faites parler là tout au rebours de mon intention, en me faisant demander octroy pour des livres que j'ay dit n'avoir pas dessein de faire imprimer, il semble que vous me veüilliez rendre par force faiseur & vendeur de livres, ce qui n'est ny mon humeur, ny ma profession […] (1.364-5)

Descartes is obliged to the chancellor for the unusual generosity of the *privilège*; he is obliged to the public to produce the books that have supposedly been promised; and he has been obliged, against his will, to take up a new, professional role. *Privilèges* were closely bound up with trade, as Furetière's definition makes clear: 'PRIVILEGE, s.m. […] [M]onopole, droit qu'on obtient de faire, […] de vendre quelque chose à l'exclusion de tous autres'. Descartes is worried, in Baillet's terms, about being bound by obligations of finance and profession to participate in *une bassesse*. (Though he also recognised that the document could confer a status analogous to *lettres de chevalerie*; we know that he let it circulate privately as an independent text.)[104] Such *bassesse* is particularly dangerous for someone who has, like Socrates, refused to call himself a teacher: in the *Meno* and *Apology*, Socrates drew the distinction between himself and Gorgias partly in terms of professionalisation — the sophists claimed to be able to teach virtue, and did so for money.

Descartes offers an exemplary account of teaching in the *Discours* to disavow responsibility for any problems his readers might get themselves into, particularly when they confront his sceptical arguments. But his gestures of refusal also serve a more constructive purpose: they are a way of safeguarding his students from some pathological features of scholastic educational styles, ones which systematically derail or discourage attempts by beginners to start doing science or philosophy. This defence of inquiry is the topic of the next chapter.

[104] AT 1.376. We still do not have a very clear idea of who the audience was for these privileges: see Schapira 2002, 137.

3. The point of teaching: Descartes and Socrates

Introduction: scepticism and scholasticism

In the 'Lettre de l'autheur' which prefaced the French edition of the *Principia*, Descartes insisted on the similarities between Plato and Aristotle. They shared the same principles; they differed only in their willingness to treat those principles as certain:

> Les premiers & les principaux [auteurs anciens] dont nous ayons les écrits sont Platon & Aristote, entre lesquels il n'y a eu autre difference sinon que le premier, suivant les traces de son maistre Socrate a ingenuëment confessé qu'il n'avoit encore rien pû trouver de certain […] ; au lieu qu'Aristote a eu moins de franchise, & bien qu'il eust esté vingt ans son disciple, & n'eust point d'autres Principes que les siens [i.e. Plato's], il […] les a proposez comme vrays & assurez […] (AT 9.2.5-6)

Descartes continues: two schools have arisen based on a difference of presentation, not of principle. One, deriving from Socrates and his student Plato, doubts everything. (This portrait of Plato as a sceptic can seem unfamiliar to modern readers who see him primarily as a positive theorist.[1] It is, however, widespread in early modern France: we find something very similar in Gassendi's *Exercitationes*.)[2] The other school, deriving from Aristotle, Plato's own student, takes the evidence of the senses as certain. Descartes, as we saw in Chapter 2, associates the first with Pyrrhonism, and the second with scholasticism (as well as Epicureanism). They lead to different sorts of error, he says: the first mistakenly allow their doubt to extend into their own way of life, 'en sorte qu'il negligeoient d'user de prudence pour se conduire'; the second trust so much to appearances that they reject technical observations which raise doubts about them, 'jusques-là qu'on dit qu'Epicure osoit assurer […] que le Soleil n'est pas plus grand qu'il paroist' (6). Time has treated these two sorts of error differently. The error of Pyrrhonism 'ne fust pas longtemps suivie', and is no longer a real danger; the Aristotelian error, preserved within

[1] For a description of this modern reading, see Vogt 2012, 5; Vogt's book more generally is a defence of a sceptical reading of Plato.

[2] Gassendi 1658, 3.204b-205a. See Bellis 2017, 130.

the scholastic tradition, has not been 'entierement ostée' and remains a harmful presence within philosophy (7). Beyond these differences, however, the two schools have a major pathological feature in common, one which weakens them in the same way: both are structured around a single core authority, and this reliance suppresses the development of new opinions within these traditions. Plato and Aristotle

> avoient beaucoup d'esprit, & beaucoup de […] Sagesse […], ce qui leur donnoit beaucoup d'authorité, en sorte que ceux qui vinrent apres eux s'arresterent plus à suivre leurs opinions qu'à chercher quelque chose de meilleur. (6)

Descartes is certainly not a syncretist about Platonism and Aristotelianism (or their later incarnations). But he thinks the two schools have a common approach to their central authorities; in both cases, that approach matters because it exerts a chilling effect on the search for truth. As we have seen, Descartes argued that by his own day the Platonic half of this picture has dropped away. But Aristotelianism is still a live option. How did Descartes think this chilling effect showed up in contemporary philosophy? Which parts of his own work address the problem? How does he confront it?

My claim in the present chapter is twofold: first, that Descartes sees the threat to inquiry here as a threat to teaching and learning, too, and consequently that his engagement with the problem fits within his educational problematic. I explore the point across a reading of the opening moments of the *Recherche de la vérité*, and of his treatment of definition in the *Méditations*. The guiding thread for the argument is a comparison between Descartes' work and Plato's *Meno*. An extended discussion of the connections between Descartes and the *Meno* is appealing in its own right: commentators have often noted 'la présence latente du *Ménon* dans le cartésianisme', but it is difficult to find a sustained attempt to describe this presence more fully.[3] We know Descartes knew Plato's text, at least at second hand, and the *Recherche de la vérité*, in particular, resembles it strongly both in form and theme. For the purposes of the present discussion, two reasons in particular motivate the comparison. The first is that, like Descartes, Socrates confronts a problem about chilling effects on inquiry: Meno's paradox alarms him, not principally as a theoretical question of whether inquiry is possible, but as a practical question of whether inquiry is worthwhile. Like Descartes, he finds it natural to frame this problem in terms

[3]Ong-Van-Cung 2000, 146. For (brief and scattered) remarks on links between Descartes and the *Meno* on the topics discussed in this chapter, see Boyle 2009, 18, 23-6, and 136; Brandhorst 2010, 162-3 and 173; Flage and Bonnen 1999, 264n23; Gouhier 1999, 148 and 154; Menn 1998a, 189n43, 191, 324n20; Rodis-Lewis 1985, 79, and 1997, 29; Scott 1995, 92, 188-9, and 225-31, and 2006, 105; and Spallanzani 1999, 94. Connections are occasionally made between Descartes' work and topics in the *Meno* I will not discuss here. Naaman-Zauderer 2010, 176n27, connects Descartes' treatment of *akrasia* to the one Socrates gives in the *Meno*. B. Williams 1978, 38, discusses the relevance to Descartes of the *Meno* account of justified belief.

of education. The second is that Socrates responds, as Descartes does, by giving a theory of innate ideas. This view helps us see that, for both authors, theories of innateness do double service: on the one hand, they are standalone accounts of how minds work; on the other, they are countermeasures against a hostility towards inquiry supposedly built into the widespread philosophy of their day.

The chapter proceeds as follows. In the first section, I look at classical and late antique discussions of the possibility of teaching. The central text explored here is the *Meno*, for two reasons. The first is that it gives the best known statement of such a problem. The second is that it gives a view of what it looks like to raise such a problem: what might compel it, what effect it might have on a discussion, and the way it might be handled by the person it is addressed to. The section closes with a discussion of Augustine's reception of the *Meno*. This brings out the way elements of the *Meno* are deployed by later authors in deep contrast to Plato's initial use of them; later in the chapter, we will see a related appropriation occurring late in the seventeenth century, in Nicolas Malebranche's work.

The second section takes up the question of parallels between Descartes' work and the *Meno*. I begin by discussing the use Descartes makes of Socrates, and a number of explicit references to *Meno* topics which occur in his writing. I then argue that there are deep, although less explicit, connections between the *Meno* and Descartes' *Recherche*. The Meno paradox does not occur there, but most of the other characteristic features of Plato's text are present. I close the section by arguing that these parallels hold elsewhere in Descartes' work, and particularly in his refusal to offer definitions of key terms in the *Méditations* (and, much earlier, in the *Regulæ*). This refusal grows out of his conviction that demands for such definitions serve only to suppress or derail inquiry; it is in contrast to these demands that Descartes presents learning to inquire properly as a matter of learning a skill.

Early responses to Descartes' work often address this account of inquiry, and often frame their response to it — sympathetic or hostile — in terms of teaching. The third section discusses such responses. Arnauld and Leibniz both believed that Descartes' treatment of inquiry in the *Méditations* was open to abuses, and that Malebranche represented a prominent instance of such abuse. I discuss Malebranche's remarks on teaching, particularly in his own *Recherche*, which bring back into play the Augustinian uses of the *Meno* we encountered earlier in the chapter. I close with a discussion of the educational terms within which Arnauld and Leibniz frame their responses to Malebranche: Arnauld thinks that Malebranche has succeeded in reintroducing into his philosophy the chilling effects which Descartes had tried to combat; Leibniz uses a continuation of one of Malebranche's own dialogues to argue that the latter's malfunctioning Cartesianism has hurt his own students. That is a charge which,

directed against Descartes' own Cartesianism, we will take up in Chapter 4.

3.1 Classical questions about teaching: the Meno *and its readers*

The *Meno* is famous for its paradox; for our purposes, however, the content of the paradox is less interesting than its setting, and particularly its relationship to the scene of instruction which follows it. I present the dialogue, and then discuss how this whole setting — both the paradox and its handling by Socrates — gets received. Readings of the *Meno* by classical and late antique authors tend to break the dialogue down into its constituent parts; this is true in Aristotle and Plutarch, and is particularly striking in Augustine, who gives the paradox a new, Christian framing: whereas Socrates treats the paradox as sophism's lowest point, Augustine sees it as a useful way of bringing the limits of reason in inquiry about God. Used in this way, it becomes part of a broader problematic in Augustine about the possibility of teaching, one which ultimately motivated his doctrine of illumination.

3.1.1 The Meno. The setting is Athens.[4] Socrates is talking with Meno, who is visiting briefly from Thessaly and staying with Anytus, an Athenian politician and one of Socrates' eventual prosecutors. Meno is young, wealthy, and attractive; he is travelling with a considerable retinue of slaves.[5] The dialogue opens with a question from Meno: 'Can you tell me, Socrates, whether virtue is teachable?' (70a). Socrates' initial response, as we saw in Chapter 2, draws up battlelines between himself and the sophist Gorgias, who is teaching in Thessaly at the time: Gorgias has a great reputation as a teacher of wisdom, while he, Socrates, does not so much as know what virtue is (70b-71b). At Socrates' urging, Meno makes two attempts to give definitions of virtue (71e-75c and 77b-79e). The first breaks down with Meno's inability to build a definition which covers all the instances of virtue Socrates proposes. ('We keep ending up with a multitude', 74d.) The second breaks down when Meno cannot give an account which distinguishes clearly between virtuous and completely ordinary people, or between the virtuous and those who pursue potentially virtuous ends by unjust means (78b and 78d). The two attempts are separated by a short, higher-level discussion about what sort of answer would satisfy Meno (75c-76c). At this point, Socrates points out, an 'eristic' debater like Gorgias would leave Meno to fend for himself intellectually; Socrates, who wants a 'genuine dialogue', will try to help him through his confusion (75d-e). Eristic is being conceived of here as a bag of tricks for winning debate,

[4]For studies of the *Meno* as a whole, see Benson 1990, Ferejohn 1988, Fine 2014, Nehamas 1985, Scott 1995, Vlastos 1965, and White 1974. The translation used here is Plato 2011.

[5]For the historical figure the character is based on, see Brill's New Pauly, 'Meno', 2.

regardless of whether what one says is true; it contrasts with both the Socratic search for truth and the dialogue form.[6] We switch back to this higher level again after the failure of Meno's second attempt to define virtue. Socrates asks Meno to try again and Meno, in frustration, gives the famous image of Socrates as an electric ray, stunning others into confusion (80a-b). His point is that Socrates delights in bewildering his students — that is, that he is as predatory as Gorgias. Socrates insists his own puzzlement is genuine, and that he wants to work together with Meno in the search for truth (80c-d).

It is in response to Socrates' picture of cooperative inquiry, in which even the older philosopher may find himself puzzled, that Meno poses his paradox. This is composed of three questions (80d). The first gives the general problem: how will Socrates search for something if he doesn't know what it is? The second states what is sometimes called the Targeting Requirement: how will he target the right sort of thing to search for? And the third states what is sometimes called the Recognition Requirement: how will he know that he has hit his target properly?[7] Socrates responds with impatience, not because the question is badly put, but because its intention is to shut down inquiry rather than to compel it: 'it would make us lazy and is pleasant news to feeble people' (81d). Recollection is offered as an account of the soul which disarms these concerns about the possibility of inquiry. Socrates thinks the doctrine is true (81a). But the doctrine of recollection itself is not the point, and his commitment to it is weak. The defence of inquiry is the point: 'I would not affirm the other points very strongly, but that we would be better, more manly and less lazy by believing that one should search for what one doesn't know […] that *is* something over which I would fiercely contend' (86b-c).[8] This is where the slave boy demonstration occurs (82b-85b). With careful prompting but without offering any new information, Socrates leads one of Meno's slaves to reason about the area of various squares and, eventually, to Pythagoras's theorem. This is meant to demonstrate the plausibility of the recollection account. More simply, it is simply meant to demonstrate, against Meno's paradox, that inquiry *just is* possible, and that careful conversation just can get people to new knowledge (84b).

The stretch of the dialogue from the breakdown of Meno's second definition to here is an extended piece of high-level discussion about the viability of Socrates' method of teaching. Meno now returns

[6]For the 'bag of tricks' characterisation of eristic, see Vlastos 1983, 39. For more on the definition of eristic in Plato, see Irwin 1986, Kerferd 1981, 62-3, and Nehamas 1990. For Aristotle's related use of the term, see Owen 1968.

[7]For this labelling of Meno's questions, see Matthews 2007.

[8]For an argument that Socrates just does not think recollection is true, and that its function in the dialogue is solely a pragmatic one to persuade Meno that inquiry is possible, see Ebert 2007. For a similar view that the doctrine mostly plays an incentive role, see Scott 1991. I think Socrates is clear that his defence of inquiry is more to the point than his defence of recollection. But he thinks recollection is right, for all that; see especially Fine 2014, 107-9.

to his initial question of whether virtue is teachable, this time on a different tack (86c-d). Meno wants to know if virtue is like knowledge; if it is, it can presumably be taught as other sorts of knowledge can (89c). Anytus enters, and Socrates takes up the point with him (89e-95a). Socrates' argument is that there are not people, either in Thessaly or in Athens, who teach virtue in the same way people teach, say, shoemaking. Anytus thinks Socrates is attacking the virtue of the Athenians, and the exchange becomes fraught (94e-95a). (The stage is being set for Anytus's role as Socrates' accuser and prosecutor in the *Apology*. Diogenes reports that he was later stoned to death for his role in the trial.)[9] Socrates comes back to his conversation with Meno, and the dialogue closes with the argument that an account of virtue as knowledge cannot be sustained; Socrates' suggestion, rather, is that virtue comes, not from recollection or teaching, but from 'divine allocation without understanding', along the same lines as the gifts which poets, prophets, and oracles have (99d-100a).

The paradox arises out of frustration at Socrates' method of teaching, and is framed as the final item in the eristic bag of tricks Meno has received from Gorgias. Whether or not Socrates thinks the three questions are well put, he regards them with irritation and unease. If Meno is right, there is no point in the slave boy (or anyone else) seeking after new knowledge; the paradox's chilling effect is profound. Socrates' first task in the teaching scene is to show, against these recklessly destructive consequences, that teaching and conversation are worthwhile. But does this frame of unease within which the paradox is presented hold together when later authors receive the *Meno*? If not, are other frames used instead?

3.1.2 Receiving and framing the Meno. The dialogue, we saw, runs on two levels: one about the sort of thing virtue is, and one about the viability of Socrates' method more broadly. This led to differences between later readers about how to classify the text. Its traditional subtitle is *Περὶ ἀρετῆς* (On Virtue), and it was following this that Estienne and De Serres, the most important early modern editors of Plato, places it in their 'Prima classis', containing 'ea quæ pertinent ad generalem Ethicorum doctrinam' ('everything relevant to general ethical doctrine').[10] At least one textbook on ethics from the period, Wilhelm Scribonius's *Philosophica ethica*, included the entire *Meno* as an appendix.[11] But not all critics agreed that the first level, on virtue, was the dominant one. In Diogenes' life of Plato, for instance, the Meno is grouped with the *Euthyphro*, *Io*, *Charmides* and *Theaetetus* as texts designed to illustrate the 'tentative' (*πειραστικός*) method, and there is a separate class of ethical texts (including the *Apology* and

[9] *Lives*, 'Life of Socrates', 2.43.
[10] Plato 1578, 3.
[11] Scribonius 1584.

Phaedo) which it is excluded from.[12] On this view, the dominant level in the *Meno* is the methodological one. Early modern defenders of Diogenes' classification came into conflict with those who read it primarily as a text on ethics. The historian Claude Fleury, for instance, spent several pages of his *Traité du choix* attacking the Estienne-De Serres edition, focusing particularly on its classification scheme.[13] In the case of the *Meno*, Fleury argued, Estienne and De Serres were wrong to see it primarily as an ethical text: following Diogenes, he described it instead as an essay on method, one which takes an attempt to demonstrate the doctrine of recollection as its organising example.[14]

But it is not common to find authors thinking about how the text as a whole hangs together like this. Rather, the *Meno* tends to get broken down into parts, which are treated independently or in any combination. Readers typically isolate three components of the dialogue: the paradox, the teaching scene, and the doctrine of recollection. In the last case, the *Meno* discussion of recollection is often recombined with the versions of the doctrine which appear in the *Phaedo*, *Phaedrus*, and elsewhere. The focus on these three components tends to deemphasise the ethical features of the work, and so to tacitly support Diogenes' classification of the text. (Other parts are used very occasionally: for instance, Diogenes discusses the conversation with Anytus in isolation from any other aspect of the *Meno*.)[15] So Aristotle is interested only in the paradox and in recollection, and treats each separately. He mentions the *Meno* twice.[16] In *Prior Analytics*, he uses it as his source for a brief discussion of recollection.[17] In *Posterior Analytics*, he is interested only in the paradox, and then only because it is, he thinks, a consequence of failing to distinguish between two senses in which prior knowledge is necessary for teaching and learning.[18] Prior knowledge is sometimes required in the form of assumptions, and sometimes in the form of explicit, established knowledge — 'Otherwise the puzzle in the *Meno* will result; for you will learn either nothing or what you know'.[19] Plutarch, too, is primarily interested in the paradox, but unlike Aristotle views it as a 'real impasse' (*ἄπορον*), one that has driven the development of different accounts of recollection among Peripatetics, Stoics, and Epicureans.[20] As a

[12] *Lives*, 'Life of Plato', 3.49-51.
[13] Fleury 1686, 296-301.
[14] Fleury 1686, 299.
[15] *Lives*, 'Life of Socrates', 2.38.
[16] See Fine 2014, Chapter 6 for a discussion of Aristotle's treatment of the *Meno*. 179n1 discusses other texts where Aristotle may be thinking of the *Meno*.
[17] 2.1, 67a8-26.
[18] 1.1, 71a1-b8.
[19] 71a30-1.
[20] *Moralia*, fragments 215-17 (Plutarch 1969, 390-401.) In addition to this passage, Plutarch mentions the *Meno* twice, both times in passing. In 'On Having Many Friends', the *Meno* is used to make a point about the virtue of seeking a single good instance of something (Plutarch 1928, 46-9). In the 'Letter of Condolence to Apollonius', it is referred to when the doctrine of recollection is used to defend the immortality of the soul (Plutarch 1928, 204-5).

contrast to both these authors, Cicero shows no interest in the paradox. His mention of the *Meno* in *Tusculan Disputations* focuses instead on the teaching scene, which Aristotle did not discuss.[21] On Cicero's reading, Socrates meant the scene 'ut discere nihil alid sit nisi recordari' ('as proof that learning is nothing but recollecting'), and consequently evidence for the stronger claim that 'inesse in animis hominum divina quædam' ('there are divine elements in human souls'), which Cicero fleshes out in the later Stoic language of *ἔννοιαι*. We will see below that the component parts of the dialogue retain their independence later in the *Meno*'s reception history: Augustine, like Aristotle and Plutarch, is primarily interested in the paradox, while Descartes, like Cicero, deals instead with recollection and the teaching scene.

It is worth recalling that, in addition to the context Plutarch gives, there was a whole tradition of argument within the classical tradition against the possibility of teaching. This existed alongside the Meno paradox, but had a future independent of any question about recollection or the theory of ideas: Sextus refers to 'the long and colourful disagreement among philosophers concerning learning' from before Plato to his own day.[22] Texts about teaching are well represented among the lost titles Diogenes mentions in the *Lives*: he lists a *Περὶ τοῦ μαθεῖν* (On Learning) in his life of Crito and a *Περὶ διδασκαλίας* (On Instruction) in his life of Simon, and notes that Antisthenes wrote both a *Περὶ παιδείας ἢ ὀνομάτων* (On Education, or On Names) and a *Περὶ τοῦ μανθάνειν προβλήματα* (Problems about Learning).[23] Most of the surviving non-Meno arguments against the possibility of teaching are Pyrrhonic. Each of Sextus's three major extant texts contains a long argument against the possibility of teaching, and Diogenes has a very elliptical version of one such argument, probably derived from a common source rather than taken directly from Sextus.[24] In *Outlines of Scepticism* and *Against the Ethicists*, the arguments come at the end of the surviving text, while *Against the Professors* proceeds in the opposite direction: the very first book tries to establish the general impossibility of teaching, before moving on to a series of attacks against particular arts and disciplines (*μαθήματα*).[25] In each case the immediate question, as in the *Meno*, is an ethical one: Sextus is arguing against the existence of an art of living (*τέχνη περὶ τὸν βίον*). Like Socrates, he begins from the assumption that such a thing would

[21] 1.24 (Cicero 2014, 56-9).

[22] *Against the Professors of Liberal Studies*, M 1.9 (Sextus 1998, 5).

[23] 2.131, 2.123, and 6.17. See further Brancacci 2005, 33-4.

[24] *Lives*, 'Life of Pyrrho', 9.100. Bett 2015 gives a useful account of the parallels between Sextus and Diogenes, with 89-90 specifically on overlap in their remarks about teaching and learning. For the argument that they rely on a common source see the introduction to Sextus 2005, and Algra and Ierodiakonou 2015, 30. Barnes 1992, 4257-89 discusses what the common source might be.

[25] *Outlines*, 3.252-73 (Sextus 2000, 209-14); *Against the Ethicists*, M 11.216-43 (Sextus 1997, 35-9); and *Against the Professors*, M 1.1-40 (Sextus 1998, 3-10).

have to be teachable, and then gives a general argument against the possibility of teaching anything at all, involving a succession of brief arguments against the existence of a subject matter for any particular discipline (*τὸ διδασκόμενον πρᾶγμα*), of teachers, of learners, and of a method for learning (*τὸν τρόπον τῆς μαθήσεως*); if teaching in general is impossible, teaching the art of living is impossible. Sextus also handles the Meno paradox more directly, treating it as a problem of inquiry, distinct from these questions about the possibility of teaching, and seems to accept it as a genuine dilemma.[26] There is a broader tradition of doubt in the classical world about the possibility of teaching, although it does not systematically appropriate Plato's text for its own purposes. For such an appropriation we must wait for Late Antiquity, and particularly the work of Augustine.

3.1.3 Augustine's uptake of Plato. Augustine is the most original early reader of the *Meno*.[27] He has a characteristic, novel way of using the paradox, visible from the outset of one of his earliest texts, the *Soliloquies*. The narrative structure of the text reproduces Plato's teaching scene, with a student being guided towards knowledge — of God, in this case, rather than geometry — by the prompting of a more experienced interlocutor. Crucially, however, the whole scene has been interiorised, and the dialogue is between Augustine and Reason. This is the first sustained example we have of a philosophical inner dialogue; Augustine coins the word *soliloquia* in the course of the text.[28] Echoing Socrates' distrust of eristic, Augustine says his aim in developing his new genre is to bypass the competitive dimension of actual conversation. Augustine shares Socrates' understanding of the dangers here: eristic degrades inquiry, and eventually discourages people from seeking the truth. As Reason says:

> [N]ovo […] nomine [i.e. 'Soliloquia'], sed ad rem demonstrandam satis idoneo. Cum enim neque melius quæri veritas possit quam interrogando et respondendo et vic quiquiam inveniatur, quem non pudeat convinci disputantem, eoque pæne semper eveniat, et rem bene unductam ad discutiendum inconditus pervicaciæ clamor explodat (2.7.14)
>
> [The term 'soliloquy'] is new […] but suitable enough, I think, for the situation it wishes to highlight. There is no better way of seeking the truth than the question and answer method. It is, however, hard to find anyone who would not be ashamed to be beaten in an argument. The almost inevitable result is that a babble of dissent caused by wilful obstinacy will destroy a topic which up to this has been carefully canvassed in the discussion. (Augustine 1990, 89)

But there is a striking divergence from Plato in the *Soliloquies*. Socrates treats the Meno paradox as

[26] M 8.58 and 9.393. For more, see Benson Mates' remarks in Sextus 1996, 22-30.
[27] I rely on Matthews 2007 for this discussion.
[28] Matthews 2007, 285.

the epitome of eristic argument: faced with the hard work of thinking, Meno used it to deny that inquiry could ever be worthwhile. Augustine, by contrast, approaches the argument seriously and sympathetically, and deploys it prominently in his work. The whole of the *Soliloquies* is conceived of as a prayer, and the opening section is dominated by a lengthy petition to God (1.1.2-6). This begins with Augustine asking for the grace to pray properly, and closes with Reason challenging him:

> *Augustinus*. Deum et animam scire cupio. / *Ratio*. Nihilne plus? / *A*. Nihil omnino. / *R*. Ergo incipe quærere. Sed prius explica quomodo tibi si demonstretur Deus, possis dicere, Sat est. / *A*. Nescio quomodo mihi demonstrari debeat, ut dicam, Sat est: non enim credo me scire aliquid sic, quomodo scire Deum desidero. / *R*. Quid ergo agimus? Nonne censes prius tibi esse sciendum, quomodo tibi Deum scire satis sit, quo cum perveneris non amplius quæras? / *A*. Censeo quidem; sed quo pacto fieri possit, non video. (1.2.7)
>
> *Augustine*: I want to know God and the soul. / *Reason*: Nothing more? / *A*: Nothing more. / *R*: Then begin your search. But first of all explain how, if God were to be shown to you, you would be able to say: 'That's enough.' / *A*: I don't know how He should be shown to me so that I might say, 'That's enough.' For I do not think that I know anything in the way in which I desire to know God. / *R*: What are we to do, then? Do you not think that first you must know how God would be satisfactorily known to you, so that when you have come so far you would not seek further. / *A*: I think so indeed, but I don't see how this can come about. (31)

What does Augustine want, and how will he know when he gets it? This is a version of Meno's third question, which set the Recognition Requirement. In the *Meno*, the question was about inquiry into anything at all, whereas Augustine is interested in a specialised version of the problem targeting knowledge of God specifically. Augustine does not provide a clear philosophical answer to it. Instead, he uses the pairing of the prayer and the paradox to underscore the reliance of inquiry about God on faith, and on God's benevolence towards the inquirer. Augustine closes Book 1 by insisting that any progress made is in God's hands, and is best secured by faith rather than by any philosophical solution to the paradox: 'Constanter deo crede eique te totum conmitte quantum potes. […] Ita enim te ad se sublevare non desinet nihilque tibi evenire permittet, nisi quod tibi prosit, etiam si nescias' ('Believe firmly in God and entrust yourself entirely to Him, in so far as you can. […] And then He will not cease to raise you up to Himself, and He will not allow anything to happen to you except what will be of benefit to you, even if you do not know it', 1.15.30/67). Socrates found the consequences of the paradox dangerous, and Plato's framing of it emphasises this. For Augustine, by contrast, the paradox correctly captures the limits of what reason alone can achieve when inquiring about God. But his new framing of the paradox, within a context of prayer, means that these limits are not perceived as

harmful. Rather, they mark the point at which one must rely on petition, not reason, in order to carry on.

Augustine clearly found this way of framing the Meno paradox useful, for the *Confessions*, written at the other end of his career, also begin with a version of it. This time, we also have the Targeting Requirement:

> Da mihi, Domine, scire et intelligere utrum sit prius invocare te, an laudare te; et scire te prius sit, an invocare te. Sed quis te invocat, nesciens te? Aliud enim pro alio potest invocare nesciens te. An potius invocaris, ut sciaris? (1.1.1)
>
> Grant me Lord to know and to understand which comes first — to call upon you or to praise you, and whether knowing you precedes calling upon you. But who calls upon you when he does not know you? For an ignorant person might call upon someone else instead of the right one. But surely you may be called upon in prayer that you may be known. (Augustine 1992, 3)

Again, there is no clear philosophical solution offered to this. Augustine's interest is rather in using the Meno paradox to illuminate what he sees as a mystery which attaches to any inquiry into God, and which pinpoints the role of faith, and grace, in such work. Augustine's sympathy for the Meno paradox, so contrary to Socrates, is a mark of a broader pessimism about the usefulness of philosophical inquiry and Socratic conversation, at least when not supplemented by faith.[29] This pessimism and its framing in terms of education were a persistent concern for Augustine, and he developed a number of independent problems about the possibility of teaching, most prominently in *De magistro*. These have to do in various ways with how signs can be used to teach the meanings of words, and centre on a problem about ostension: is there an unambiguous way of pointing out what I mean by a word to someone who does not know the word? Augustine's response seems to be, once more, that the problem does not have a secular solution. The possibility of ostensive teaching (and of teaching in general) cannot be secured by 'loquen[s], qui personat foris' ('speaking that sounds outside of us'), but by 'intus ipsi menti præsidentem […] veritatem' ('truth that presides within, over the mind itself').[30] This leads him to his own account of illumination, on which truths are learnt by an inner faculty of vision which is illuminated by an 'interior lux veritatis', identified with God.[31] Direct person-to-person teaching is not possible; others' words can at best provide occasion for illumination. As he put it in his *In Iohannis epistulam ad Parthos tractatus*: 'Nolite putare quemquam aliquid discere ab homine. Admo-

[29] For more on this pessimism see *City of God*, 11.2.

[30] *De magistro*, 11.38, translated at Augustine 1950, 177, translation altered.

[31] *De magistro*, 12.40. For the argument that Augustine thinks all truths are learnt by illumination, and not just *a priori* ones, see Matthews 2001, 180.

nere possumus per strepitum vocis nostræ; si non sit intus qui doceat, inanis fit strepitus noster' ('Do not think that anyone learns anything from a man. We can suggest through the sound of the voice; if there were not One within who teaches, our sound is empty').[32] Augustine's theory of illumination is offered as a competitor to Socrates' theory of recollection, one which answers the same problems about the possibility of teaching. Augustine had two sorts of reasons for opposing recollection. The first was philosophical. In particular, he thought Socrates' theory implied that different minds would have different ideas available to them, depending on their past lives.[33] Referring to the *Meno* teaching scene, he argues that recollection fails to explain one of the most important facts that scene demonstrates, that the ideas of geometry are available to people quite uniformly. The second sort of reason was scriptural. He built his hostility to the possibility of direct teaching on Matthew 23:8 ('But you are not to be called rabbi, for you have one teacher, and you are all students [ἀδελφοί]'), and his commitment to illumination by God on, for instance, John 8:12 ('I am the light of the world'). We will come back to this doctrine of illumination later in the chapter. The remaining question for this section is: what sort of future did Augustine's Christianised setting of the Meno paradox have?

3.1.4 The immediate response to Augustine's reading. Augustine's commitment to the impossibility of direct teaching sets a topic for medieval thinkers, and in particular Aquinas, Henry of Ghent, and Duns Scotus.[34] It has only been emphasised relatively recently that such problems about the possibility of teaching formed a major sceptical problematic in the Middle Ages.[35] But Aquinas, Henry, and Scotus are Aristotelians writing, to some degree, against Augustine. It is far harder to find Augustinians who take up Augustine's characteristic use of the Meno paradox. A prominent medieval example comes at the outset of Petrarch's *Secretum*. The form is an inner dialogue, like the *Soliloquies*, with Augustine himself taking up the role of Reason. Soon after the start of the text, Petrarch's character hesitates:

> *Augustinus*. Quid caliginis intervenit, quid ve nunc dubietatis aboritur? / *Franciscus*. Quoniam innumerabilia sunt, que ardenter optamus studioseque petimus, ad que tamen nullus labor nulla nos diligentia aut provexit aut provehet. (1.4)

[32] Tractate 3.13, translated at Augustine 1995, 171.

[33] *De Trinitate*, 12.15.24. See also Matthews 2001, 180.

[34] For Aquinas, see *Quæstiones disputatæ de veritate*, q. 11, 'De magistro', discussed in Chapter 2 above. For more on Aquinas's text as a response to Augustine's, see Gilson 1926-7 and Matthews 2001. Henry of Ghent's 'De magistro' is the first article in his *Summa quæstionum ordinarum* (Henry 2004, translated in Henry 2008). Scotus's response is in his commentary on the *Metaphysics*, question 4 (in Scotus 1949-2008, volume 3, translated in Scotus 1997).

[35] For more on these medieval treatments of problems about the possibility of teaching see Goris 2013 and Pickavé 2010. For broader surveys of the treatment of such classical sceptical problems within medieval philosophy, see Lagerlund 2010 and Perler 2012, particularly Part 1.

> *Augustine*: What fog is occluding your mind, or what doubt has now arisen? / *Francesco*: It's that the things we desire passionately, and work for earnestly, are innumerable, and yet no effort however assiduous has advanced us toward them, or ever will. (Petrarch 2016, 13)

This is a version of the Targeting Requirement: how can Petrarch locate and move towards this knowledge which he does not already possess? As phrased, the question is not about knowledge of God in particular. Petrarch is worried about a general inability to approach the objects of our desire. But Augustine responds that there is something distinctive about the desire for God which disarms this concern. In this case alone, the quality of one's desire is enough to guarantee the possibility of inquiry:

> In rebus ceteris id verum esse non inficior, at in eo, quod nunc agitur, contra est. […] Quia qui miseriam suam cupit exuere, modo id vere pleneque cupiat, nequit a tali desiderio frustrari. (1.4-5)
>
> I don't deny that in other matters this is so, but in the one that concerns us the contrary is true. […] [H]e who wishes to free himself from his misery, as long as he wishes it truly and fully, cannot fail in his desire. (13-15)

Echoing Augustine's use of the *Meno*, Petrarch then uses this early allusion to the paradox to define a programme for the rest of his text. He will focus on the perfection of his desire as the only thing which can guarantee progress towards God; this will come through meditation on his own misery. The model, Augustine reassures him, is the same as that he followed in his own texts: 'Itaque postquam [meditatus sum] plene volui, ilicet et potui, miraque et felicissima celeritate transformatus sum in alterum Augustinum, cuius historie seriem, ni fallor, ex *Confessionibus* meis nosti' ('From that moment [of meditation] onward, since I wanted it, I could do it instantly, and so was transformed happily, and remarkably quickly, into another Augustine, whose unfolding story you know, unless I'm mistaken, from my *Confessions*', 5.5/27).

But this structural use of the Meno paradox was not picked up by subsequent Augustinian authors. Nothing like it occurs, for instance, in the inner dialogues or life-writing of post-Petrarch authors like Conversini or Alberti.[36] What is preserved, rather, is the thought that petition, rather than reason, guarantees knowledge of God, and that this guarantee is available to a Christian in a way it was not to the pagans. Montaigne, for instance, uses this pair of thoughts to close the 'Apologie'.[37] He writes:

> [A] [Un homme] s'eslevera si Dieu lui preste extraordinairement la main ; il s'eslevera, abandonnant et renonçant à ses propres moyens, et se laissant hausser et soubslever par

[36] My thanks go to Martin McLaughlin for his help on this point.

[37] For an overview of Augustine's influence on Montaigne, and particularly for the question of whether Montaigne ever read the *Confessions*, see Mathieu-Castellani 1998. For the broader debate about Augustine's influence on Montaigne, see Cave 2009, 144n39, and McKinley 1996, 99-100.

> les moyens purement celestes. [C] C'est à nostre foy Chrestienne, non à sa vertu Stoique, de pretendre à cette divine et miraculeuse metamorphose. (604)

Such Augustinian thought continues to be prominent in the work of seventeenth-century authors like Pascal. ('Il y a assez de lumière pour ceux qui ne désirent que de voir'; '[Dieu] se découvre à ceux qui le cherchent'.)[38] As we will see in Section 3.3, they recur much later, in the work of Nicolas Malebranche, who thought Augustine's account of learning by inner light coupled easily with Descartes' emphasis on solitary meditation and his hostility to authorities. The attempted synthesis was not a happy one. But I set aside these Augustinian questions in the next section. On the reading of the *Meno* presented so far, is it right to say that Plato's dialogue is a 'présence latente' in Descartes' work? If it is, how does it show up?

3.2 Descartes on the point and possibility of teaching

There are a number of clear references to the *Meno* in Descartes' work. I begin with a discussion of what these are, where they might have come from, and how seriously Descartes took them. In the second part of the section I look at less explicit parallels between Descartes' work and the *Meno*, and particularly the *Recherche de la vérité*, which mirrors Plato's text in a number of substantial ways. No other text by Descartes tracks the *Meno* so closely as the *Recherche*, but I argue that some *Meno*-like features of Descartes' dialogue are prominent elsewhere in this thought, and particularly in the *Méditations*.

3.2.1 Descartes' exposure to Plato. To begin, what knowledge might Descartes have had of Plato, and of the *Meno* more specifically? Even among those who did not refer to, and may not have read, Plato's work, Socrates was widely used as a figure of iconoclastic philosophical freedom.[39] Descartes shared this usage: it is unclear how much direct exposure he had to Plato's texts, and he refers to specific ones only rarely, instead using the figure of Plato as a sort of representative arch-sceptic.[40] This does not mean Descartes' use of Socrates is merely decorative. In the *Regulæ*, for instance, the figure of Socrates as arch-sceptic is used to sketch out a way of reaching basic truths with hyperbolic doubt:

[38] Pascal 1964-, Sellier 274 and 690.

[39] See Bury 1996 and 2004, Cavaillé 2004, and Lojacono 2004a.

[40] See, for instance, AT 3.753 and 9.2.5. For a general account of Descartes' knowledge of Plato and his use of the figure of Socrates in his work, see Lojacono 2004a, 136-46. For a complete list of references to Plato and Socrates in Descartes' work see Meschini 2004, 317-18 and 320-1.

> [S]i Socrates dicit se dubitare de omnibus, hinc necessariò sequitur: ergo hoc saltem intelligit, quòd dubitat; item, ergo cogniscit aliquid posse esse verum vel falsum, &c., ista enim naturæ dubitationis necessario annexa sunt. (AT 10.421)
>
> [S]i Socrate dit qu'il doute de tout, il suit nécessairement de là : donc qu'il entend bien au moins, qu'il doute ; de même, donc qu'il connaît que quelque chose peut être vrai ou faux, etc. : ceci [i.e. these propositions] est nécessairement conjoint à la nature du doute. (Descartes 1977, 48, translation altered)

Much of Descartes' mature method of doubt is present in outline here.[41] There are indications, further, that Descartes' interest in Socrates was more than an interest in doubt: Descartes may have taken Socrates more generally as a figure of skilful, independent inquiry. Baillet reports that Descartes intended to write a small work called *De deo Socratis*, 'où il examinoit ce que pouvoit être cét *Esprit familier* de Socrate'.[42] Henri Gouhier argued that the *ingenium* of the *Regulæ* is a version of Socrates' *daimon*, and Descartes' contemporary opponents saw a clear connection here: as Schoock wrote in the *Admiranda methodus*, 'dignus opinor Atheniensis senex est, ut cum dæmonio hominis Cartesio componatur' ('ce vieillard d'Athènes est, je crois, bien digne d'être comparé avec Descartes comme le *daimon* de l'homme').[43] If Gouhier's argument is right, the *daimon* was one of Descartes' models for the anti-scholastic account of the inquiring mind which he develops from his earliest work. Of course, there were limits to how deeply Descartes could identify with Socrates. To a far greater degree than authors like Montaigne, Charron, or La Mothe Le Vayer, who were avowedly Socratic in their approach, Descartes was a systematic thinker; it is difficult to see how that characteristic could coexist with a deeper allegiance to Socrates.[44]

How about the *Meno*? We do not know if Descartes read the dialogue directly. There is no record of it, although, as we saw in Chapter 2, lack of reference to an author in Descartes' writing does not mean he was unfamiliar with them. In any case, if he did not know the *Meno*, other texts he probably read could have offered partial accounts of the dialogue. He was taught Cicero at La Flèche, and may have read the *Tusculan Disputations*, and so come across its account of the teaching scene and of recollection.[45] As noted above, Cicero does not mention the paradox. It is possible that Descartes knew

[41] See Jean-Luc Marion's note at Descartes 1977, 244 for this point, and also Lojacono 2004a, 138. There is a second reference to Socrates in the *Regulæ*, serving a similar purpose, at 432/56.

[42] Baillet 1691, 2.408.

[43] Schoock 1643, 254 (Descartes and Schoock 1988, 310, translation altered). For more on the *Admiranda methodus* see Chapter 4. For Gouhier's argument, see his 1951, 10-11, and also Lojacono 2004a, 136-7.

[44] Lojacono 2004a, 138-9. For the figure of Socrates in these other authors, see McLean 2009 and Ribard 2003b, 74-5.

[45] This is often the line of transmission assumed by critics: see, for instance, Menn 1998a, 324n20. But there is not much reason to think Descartes was a particularly careful reader of Cicero. There are only scattered references

one of Aristotle's accounts of the *Meno*, which would have told him about it. But his knowledge of Aristotle was heavily mediated by the commentaries he had read, and the relevant Coimbra commentary, *In universam dialectam*, largely skips out Book 2 of the *Prior Analytics*, which includes that text's account of the paradox. It gives a good discussion of the paradox as Aristotle presents it in the *Posterior Analytics* — but the *Posterior Analytics* was not part of the curriculum at La Flèche.[46] Descartes may not have known about the Meno paradox.[47] We know at least that he knew the teaching scene, its link to the doctrine of recollection, and the name of dialogue it occurs in, because he described the scene approvingly in the *Letter to Voetius*.[48] Cicero would have been sufficient to give him all that. The point at stake in the letter is whether Descartes can coherently base a proof of God's existence on his account of innate ideas. The objection, made in Martin Schoock's *Admiranda methodus*, is: given that, on Descartes' account, everyone already has the idea of God innate in them, don't they know already that he exists? And isn't any proof of God's existence therefore unnecessary?[49] Descartes answered by recalling his distinction between innate ideas, which are given to us by nature and which we can come to know 'ex proprii ingenii viribus', and the explicit knowledge which stands at the end of this process.[50] Innate ideas offer only potential knowledge. Things like proofs of God's existence help develop this into explicit knowledge. The point is not limited to gaining knowledge about God. It holds for other innate ideas, like those of geometry. Descartes uses the *Meno* teaching scene as an instance of the acquisition of explicit knowledge from innate ideas:

> Atque inde Socrates apud Platonem, puerum quemdam de Geometricis elementis interrogando, sicque efficiendo ut ille puer quasdam veritates ex mente propriâ erueret, quas priùs in eâ fuisse non notaverat, reminiscentiam suam probare conabatur. (167)
>
> Ainsi, dans Platon, Socrate interroge un enfant sur les éléments de la géométrie, et posant des questions de manière à lui faire trouver dans son esprit certaines vérités qu'il n'y avait pas remarquées auparavant, il essaie de prouver que ses connaissances sont des souvenirs. (387)

to Cicero in his writing. When Descartes does use Cicero, he does so as the curriculum at La Flèche used him, as a go-to example for high quality Latin rhetoric. See AT 1.479 and 3.255, and also 3.274, where Descartes justifies his style in the *Méditations* by comparing it to Cicero's.

[46] For the abridged discussion of *Prior Analytics*, Book 2, see Fonseca 1607, 2.357-62. For the commentary on the *Posterior Analytics* discussion of the Meno paradox, see 2.369-82 and 396.

[47] As a final possible source for knowledge of *Meno*, as well as for Pyrrhonic arguments against teaching, Descartes had a copy of Diogenes' *Lives*. See his correspondence with Schooten at AT 5.318. But that is in 1649 — far too late for its accounts of Socrates or Pyrrho to shape his work.

[48] AT 8.2.166-7, translated at Descartes and Schoock 1988, 386-7.

[49] Descartes cites Schoock 1643, 180, 183, and 189, translated at Descartes and Schoock 1988, 272-3 and 276. Descartes is writing under the assumption that the text was written by Voetius. I discuss the Utrecht Quarrel, of which all this is a part, in Chapter 4.

[50] AT 8.2.166, translated at Descartes and Schoock 1988, 386.

Descartes concludes: saying that everyone with the innate idea of God has explicit knowledge of him is like saying that the slave boy already knew the whole of Euclid's *Elements*. Perhaps surprisingly, Descartes is comfortable here using the language of recollection to describe the knowledge the slave boy gains. That does not mean that Descartes is signing up to Plato's extended theology of the soul. Nor does it indicate that Plato was an important direct source for Descartes' account of innateness. There are others involved in the debates of the period around innateness who drew more explicitly on Plato: Leibniz, for instance, said in the *Discours de métaphysique* that he would be happy to accept a Platonic version of recollection, '[pourvu] qu'on la purge de l'erreur de la préexistence'.[51] But it does show that Descartes is sympathetic to the account of education in the teaching scene. There is at least one other passage — and a much more prominent one — where Descartes is, again, comfortable with the language of recollection.[52] This is in Meditation 5:

> dum illa primùm detego, non tam videar aliquid novi addiscere, quàm eorum quæ jam ante sciebam reminisci, sive ad ea primùm advertere, quæ dudum quidem in me erant, licet non prius in illa obtutum mentis convertissem. (AT 7.64)
>
> lorsque je commence à les découvrir, il ne me semble pas que j'apprenne rien de nouveau, mais plutost que je me ressouviens de ce que je sçavois desja auparavant, c'est à dire que j'aperçoy des choses qui estoient desja dans mon esprit, quoy que je n'eusse pas encore tourné ma pensée vers elles. (AT 9.1.50-1)

Descartes finds the language of memory useful for describing what it is like to learn about innate ideas. His use of it is part of his attempt to describe the difference in feeling between finding something out ('apprendre quelque chose de nouveau') and working something out ('apercevoir quelque chose qui était déjà dans mon esprit'). Again, Descartes is not marking a serious commitment to recollection here, but he is willing to entertain Plato's language as a rough way of capturing the distinction he is trying to make.

There are, then, a small number of explicit, sympathetic, noncommittal references to the *Meno* and its topics in Descartes' work. But these direct links between Descartes and Plato are not the only interesting ones, for there are a number of features of Plato's text which are mirrored — sometimes quite generally, but not trivially — in Descartes' work, and it is these features which demand attention. If anything makes up the 'présence latente du *Ménon*' in Descartes, they do. The text in which these shared features are most visible is the *Recherche de la vérité*, which I turn to now.

[51] Leibniz (1686) 1907, 73.

[52] The only other explicit mention of recollection that I am aware of is in a letter to Golius praising Constantijn Huygens (AT 1.315-16).

3.2.2 The Meno *and the* Recherche. In the preface to the *Recherche*, Descartes denied that he had taken 'les vérités que je diray' from Aristotle or Plato (AT 10.498). How about his form — is the *Recherche* a Platonic dialogue? There is, most immediately, a mapping available between the casts of each text. In each case, we have a gadfly teacher (Socrates/Eudoxe), a well-educated and moderately sympathetic representative of the school the gadfly is opposed to (Meno/Epistemon), and an able but largely unschooled student (the slave boy/Poliandre). But Plato's is not the only model for philosophical dialogues available in the sixteenth and seventeenth centuries.[53] The other main option was Ciceronian, and this was generally preferred by Renaissance humanists, particularly in Italy, where Plato's depictions of characters from a range of social classes idly discussing love was considered undignified by theorists like Sigonio.[54] Cicero's approach was also distinguished by argumentative and formal features: he typically treated the alternative positions offered by his interlocutors more sympathetically than Plato did, and included himself as a character in his dialogues.[55] Particularly in his characterisation, Descartes followed the Ciceronian model. The presence of a slave boy, as in the *Meno*, would have been unacceptable to Cicero, and, in line with this, Descartes flattens out class differences, absorbing all the characters into a vaguely aristocratic *honnêteté*: their exchange is '[une] de ces conversations honnestes, où chacun découvre familiarement à ses amis ce qu'il a de meilleur en sa pensée' (498).[56] (For a roughly contemporary text explicitly associating *honnêteté* with the upper classes, see Nicolas Faret's *L'Honneste homme ou l'art de plaire a la court*.[57] The aristocratic connotations of the word became more marked later in the century.)[58] Nor is there any equivalent of Socrates' frequent remarks to Meno about his beauty: the sexual elements of Plato's text have also been stripped out. But Descartes' approach also diverges importantly from the Ciceronian model. His dialogue is not a forum for a range of ideas: it is, emphatically, an apology for Cartesianism alone. The historical Descartes does not appear as a character in the dialogue, and his characters are one-dimensional fictions. This second divergence from Cicero is common in France at the time. Only the Italian dialogue writers had maintained the tradition, common to both Cicero and Plato, of using richly detailed contemporary or historical figures as their characters — and so only they had maintained the specifically Ciceronian practice of including

[53] I rely here on Cazanave 2007 and Cox 1992.
[54] Cox 1992, 16. For Italian theorists of dialogue in the Renaissance see also Snyder 1989.
[55] I take these two features from Schofield 2008, 70-83.
[56] Cox 1992, 17.
[57] Faret 1630.
[58] For this development see Clark 1994, Chapter 10, and Scholar 2005, 190-5. For *honnêteté* more generally see Magendie 1925.

themselves as characters.[59] Elsewhere in western Europe, the standard was instead to follow Lucian in using thinly characterised and largely anonymous speakers; Descartes was following standard French and Dutch usage. Beyond these broad departures from the Ciceronian model, there are a number of similarities in content between the *Recherche* and the *Meno* in particular. We have already mentioned the correspondence between the characters of the two dialogues. There are at least three other points of resemblance: at the core of the drama, in both dialogues, is the student's successful education in a foundational non-empirical discipline; in both cases, it is crucial that the student works things out for themselves, with the gadfly's help; and, in both cases, this teaching scene is used by the gadfly to score a point in his war with his opponent, which provides the broader frame for the dialogue. I take these three points up in order.

The disciplines are different in each text, and so is the way in which they are presented as foundational. The slave boy learns mathematics, but Poliandre learns metaphysics. Socrates presents mathematics as a fundamental example of the sort of thing that can be worked out from ideas we have innately. Descartes makes the same claim with metaphysics, but also a stronger one: that the truths learnt are foundational for a broader system of natural philosophy. The disanalogy mirrors a shift in Descartes' own work. In the *Regulæ*, he viewed mathematics as the foundational discipline for the sciences. The new discipline he proposed there, a *mathesis universalis*, was distinct from the 'vulgari Mathematicâ' of arithmetic and geometry, and would be able to 'ad veritates ex quovis subjecto eliciendas se extendere' ('tirer des vérités de n'importe quel sujet qu'on voudra', AT 10.374/12). But it remained fundamentally quantitative.[60] This early version of Descartes' *mathesis universalis* was unable to address some problems he encountered within the *Regulæ* — in particular, that of giving an account of 'quid sit generaliter potentia naturalis' ('ce qu'est en général une puissance naturelle', 395/28).[61] The pressure of such questions meant, in his later work, that metaphysics replaced mathematics as the foundational discipline. Metaphysics could accommodate the sort of account, given in the *Méditations*, of the soul, its faculties, and its relationship to God, worked out without any appeal to quantity or measure, and prior to any account of the physical world.[62]

The two dialogues make closely parallel philosophical points. In both teaching scenes, the motor which supposedly drives the student's discovery of new truths is their interrogation of their own ideas,

[59] Cox 1992, Chapter 3.

[60] For more on the *Regulæ* view of mathematics as a foundational discipline see Menn 1998a, 210-13. Descartes is drawing on a broader tradition of *mathesis universalis*, discussed in Crapulli 1969 and Rabouin 2009.

[61] Menn 1998a, 213.

[62] For the idea that metaphysics has become Descartes' replacement for this by the time of the *Méditations* see Menn 1998a, 216-19.

and in both cases this is backed up by a controversial theory about the innateness of those ideas. But the central methodological purpose of each text is not to flesh out this theory in detail. We have already seen that Socrates is not very strongly committed to recollection in the *Meno*; his point is, rather, to sketch out a way past a certain attack on the possibility of inquiry. Innate ideas provide the mechanism by which one learn about metaphysics.[63] But, much like Socrates, Descartes is not primarily interested in laying out the mechanism by which Poliandre learns; his point is, rather, to show Poliandre how to go on:

> Mais je croyray avoir assés satisfait à ma promesse, si en vous expliquant les vérités qui se peuvent déduire des choses ordinaires & connues à un chascun, je vous rends capables de [trouver] vous mesmes toutes les autres, lorsqu'il vous plaira prendre la peine de les chercher. (503)

Descartes is asserting this against what he presents as a characteristically scholastic response to a question, from a non-expert, about whether science is so much as worthwhile. At the opening of the dialogue, Poliandre addresses both his interlocutors. He is sorry he did not receive the sort of education they did when young: 'si j'avois autant estudié comme vous, je serois aussy différent de ce que je suis, que les Anges le sont de ce que vous estes' (499). He wants to learn from them in order to put to rest 'le regret d'estre ignorant': this regret 'me demeurera toute ma vie, si je n'apprens quelque chose en vostre conversation'. His problem is about his ignorance of natural philosophy, but it is also a moral one, about the unhappiness caused by that ignorance, and by the regret and desire which attach to it. In his correspondence with Elisabeth, Descartes underscores the centrality of regret to his conception of unhappiness:

> [I]l n'y a rien que le desir, & le regret ou le repentir, qui nous puissent empescher d'estre contens : mais si nous faisons tousjours tout ce que nous dicte nostre raison, nous n'aurons jamais aucun sujet de nous repentir […] (AT 4.266)

The pursuit of reason disarms regret.[64] Poliandre conceives of this pursuit, in the first instance, as conversation: it is by addressing himself to others, and learning from them, that he will make progress on his unhappiness.

The two interlocutors give very different responses to Poliandre's situation. Epistemon speaks first. He tells Poliandre that 'le regret d'estre ignorant' simply cannot be appeased. He himself still feels it

[63] As in Meditation 5: see in particular AT 7.51/9.37.

[64] See also AT 4.284 and 288, and the second maxim of the *morale par provision*, which is designed to deliver Descartes 'de tous les repentirs & les remords' (6.25). See further D. J. Brown 2006, 178-82.

and, in fact, more learning only makes it worse: 'le desir de sçavoir […] est une maladie qui ne se peut guerir, car la curiosité s'accroist avec la doctrine'. By the end of his reply, Epistemon's point has turned from a reassuring one to a controlling one. As he is now, Poliandre is happier than his interlocutors:

> [P]our ce que les deffauts qui sont en l'ame, ne nous affligent qu'autant que nous en avons la connoissance, vous avés quelque avantage plus que nous, en ce que vous ne voyés pas qu'il vous manque tant de choses, comme nous faisons. (499-500)

The implication is clear: the notion Poliandre has started from, that inquiry might provide a route to happiness, was wrong. For those purposes, inquiry is not worthwhile. It will only increase his regret. Epistemon never deploys the equivalent of the *Meno* paradox; as I said above, Descartes may well not have known about it directly. But the consequences implied by the paradox, which gave it such gravity in the text — that inquiry is impossible, that philosophical dialogue is not worthwhile — are emphatically present in Epistemon's response to Poliandre's opening question.

Eudoxe refuses to accept this answer: 'Est il possible […] qu'il y ait une maladie si universelle en la nature, sans qu'il y ait aussi quelque remede pour la guerir ?' (500). There is a fundamental point of Cartesian theodicy at play here: we are not given desires which it is beyond our power to satisfy or extinguish, just as we do not make errors which it is beyond our power to avoid.[65] Nor can a Cartesian assent to Poliandre's claim that his childhood left him distinctively unprepared for the search for truth. As Descartes emphasised in his introduction to the *Recherche*, his claim is that everyone's childhood, and everyone's education, leaves them similarly disadvantaged in the search for truth: 'il est presque impossible, que son imagination [i.e. that of any non-Cartesian] ne se trouve remplie d'une infinité de fausses pensées' (496). For a Cartesian, regret is one of the passions, always involving 'quelque Desespoir'.[66] By the exercise of reason, Eudoxe has been able to control his passions, including regret: 'je n'ay plus de passion pour apprendre aucune chose, & […] je suis aussy content du peu de connoissance que j'ay, comme jamais Diogene le fut de son tonneau, sans que toutes fois j'aye besoin de sa philosophie' (501). Where Epistemon had discouraged Poliandre from pursuing science because it would not alleviate his sense of regret, Eudoxe instead promises that the end of passion and progress in the sciences go hand in hand: 'nous […] proposerons la méthode pour les pousser [i.e. the sciences] beaucoup plus avant qu'elles n'ont esté, & trouver de soy mesme, avec médiocre esprit, tout ce que les plus subtils peuvent inventer' (506). Such progress in the sciences is inseparable from an

[65] Descartes' most important statement of this doctrine is his account of error in Meditation 4; see also Meditation 6, AT 7.75-6/9.60-1.

[66] See *Passions* §209 (AT 11.484); there are related descriptions of remorse at §60 and §177 (376 and 464), and repentance at §191 (472-3). For more on the role of the passions in the *Recherche* see Schmitter 2002.

increased control of the will, which enables one to avoid error; and that, in turn, is inseparable from the quelling of misleading desire, and the progress in happiness, which Eudoxe promised to Poliandre. As Eudoxe gives his answer, Epistemon is represented as an intrusive figure, one whose interjections hamper or discourage the search for truth. At the end of the preliminaries, Eudoxe asks Epistemon to remain silent: 'il faudra icy que vous […] me laissiés un peu entretenir avec Poliandre' (509). Socrates' impatience with the paradox has its equivalent in Eudoxe's forceful refusal of Epistemon's answer, and of his interjections.

As with the *Meno*, this debate about the worthwhileness of inquiry is mapped onto a debate between rival schools. Socrates and Descartes are both opposed to a prevailing idea of what professionalism in philosophy looks like in their day. One of the reasons Meno presses the conceptual question of whether virtue is like knowledge is because he has an interest in the practical question of whether virtue is teachable, and so whether the money he has paid Gorgias has been wasted. As we saw in Chapter 1 above, late sixteenth- and seventeenth-century modernisers absorbed Socrates' attack on the professional claims of the sophists into their campaign against pedantry. As Montaigne wrote in 'Du pedantisme':

> [C] Ces maistres icy [i.e. modern, 'pedantic' educators], comme Platon dit des sophistes, leurs germains, sont de tous les hommes ceux qui promettent d'estre les plus utiles aux hommes, et, seuls entre tous les hommes, qui non seulement n'amendent point ce qu'on leur commet, comme fait un charpentier et un masson, mais l'empirent, et se font payer de l'avoir empiré. (138)

Descartes participated enthusiastically in this campaign, identifying the pedants with the scholastic teachers of his day.[67] Hostility towards Aristotelian education is emphatic from the very first sentence of the introduction to the *Recherche*: 'Un honneste homme n'est pas obligé d'avoir veu tous les livres, ni d'avoir appris soigneusement tout ce qui s'enseigne dans les escholes' (495). It is reinforced more precisely in the dialogue proper. A particular target is the use of syllogism to guide inquiry. When Eudoxe interrupts his own teaching scene to underscore Poliandre's achievement so far in the text, he emphasises that intuition has been privileged over the application of logic:

> Atqui cuncta hæc dicuntur peragunturque, sine Logicâ, sine regulâ, sine argumentandi formulâ, solo lumine rationis & sani sensùs, qui ubi solus per se agit, erroribus minùs est obnoxius, quàm cùm mille diversas régulas, quas artificium & desidia hominum, ad illum corrumpendum potiùs quàm reddendum perfectiorem, invenerunt, anxiè observare studet. (AT 10.521)

[67] Shapin 1991, 294. For more on Montaigne's text, see MacPhail 2001, 462.

> All these points have been stated and worked out not by means of logic, or a rule or pattern of argument, but simply by the light of reason and good sense. When this light operates on its own, it is less liable to go wrong than when it anxiously strives to follow the numerous different rules, the inventions of human ingenuity and idleness, which serve more to corrupt it than render it more perfect. (CSM 2.415)

Scholastic logic, like eristic, is a bag of tricks, not a way of seeking truth.[68] This is the sort of intuitive knowledge which, Socrates says, the slave boy would eventually be able to achieve: 'now these opinions have only just been stirred up for him as if in a dream. But if someone goes on to question him about these things on many occasions and in many ways, you know that eventually he will have knowledge about them as precise as anyone's' (85c).[69] The connection between scholastic logic, eristic, and styles of education which dissuade inquiry was made more explicitly much later in Descartes' career, in his *Letter to Voetius*. Writing in response to the *Admiranda methodus*, which he believed Voetius had written, Descartes describes Voetius's Aristotelian teaching style as consisting of three methods: the use of authorities to furnish proof, of spurious syllogisms, and of distinctions which serve only to distract or confuse (AT 8.2.50). Such methods, Descartes emphasises, are *easy*: easily used by students for producing superficially impressive work, and easily used by Voetius himself to gain a reputation as an 'ingenium'. They precisely resemble the eristic bag of tricks used by 'Sophistæ olim'. The consequences of this method are particularly damaging for the young:

> [I]i, qui arte istâ utuntur, facilè ad aliquam doctrinæ atque ingenii famam perveniant. Et ideo damnosissima est, non tantùm adultis, sed præsertim junioribus, qui, dum ei affuescunt, & ex opinione doctrinæ, per ipsam acquisitâ, superbiunt, rationem suam naturalem, quæ alioquin ætate posset maturescere, planè corrompunt. (51-2)
>
> [C]eux qui se servent habilement de ce moyen parviennent sans peine à une certaine réputation de savoir et d'esprit ; et c'est là ce qui rend cette méthode si funeste, non seulement aux hommes d'un âge mur, mais encore et surtout aux jeunes gens : ils en prennent l'habitude, s'enorgueillissent de cette réputation si facilement acquise, et gâtent entièrement leur raison naturelle, que l'âge eût, sans cela, mûrie et perfectionnée de plus en plus. (Descartes et Schoock 1988, 357)

This is an echo of Charron's neo-Stoic account of education as the development of the *naturel bien* of the young.[70] In neglecting the development of reason in favour of authority, Voetius and his fellow scholastics are ultimately abdicating the responsibility to teach: there is simply nothing in the books or

[68] See further Lojacono 2004a, 144, for the idea that Descartes is evoking Socrates at this point in the *Recherche*.

[69] See Hacking 2014, 26 for this point. Hacking 1980 says more about his conception of Descartes' account of proof; for replies, see Sarkar 2003, 161.

[70] See Chapter 2 above.

classes guided by these methods 'ex quo lector eruditior reddi possit' ('qui puisse instruire le lecteur', AT 8.2.54).

Dialogue form is not characteristic of Descartes' work, and there are no other instances where he stages a scene of instruction as he does in the *Recherche*. But the insistence on intuitive knowledge persists throughout his work. So does the thought that, where scholastic critics like Epistemon oppose his appeal to intuition, they often do so out of an unspoken desire to derail or shut down inquiry.

3.2.3 Teaching skill in the Méditations*.* This can be seen in Descartes' treatment of the definition of apparently technical terms in the *Méditations*, and his response to criticisms of this treatment. At the very start of the Sixth Objections, Descartes' respondents raise a question about whether the meditator knows that he is thinking, or that he exists. Descartes appears to have used that knowledge as a starting point for the *cogito*. But, they object, the meditator has not yet clearly defined what knowledge is, or what existence is. The reader who has followed Descartes' argument to this point does not yet have all the theoretical pieces needed to motivate his conclusions. The meditator owes everyone clear theoretical accounts of the concepts in play:

> Ut enim certus fis te cogitare, debes scire quid sit cogitare seu cogitatio, quidve existentia tua; cùmque necdum scias quid sint illa, qui nosse potes te cogitare vel existere? (AT 7.413)
>
> For in order to be certain that you are thinking you must know what thought or thinking is, or what your existence is; but since you do not yet know what these things are, how can you know that you are thinking or that you exist? (CSM 2.278, translation altered)

Descartes denies that he needs to give definitions of *cogitatio* or *existentia*. Providing such definitions would be possible. But he takes the objection to involve a further demand, to explicitly define all the foreknowledge involved in reaching such a conclusion. That is *not* possible, for it would lead one into a regress problem, an endless stream of questions which fail to get us any further in our inquiry. As he says his response:

> Verum quidem est *neminem posse esse certum se cogitare, nec se existere, nisi sciat quid fit cogitatio, & quid existentia*. Non quòd ad hoc requiratur […] scientia scientiæ reflexæ, per quam sciat se scire, […] atque ita in infinitum, qualis de nullà unquam re haberi potest. Sed omnino sufficit ut id sciat cognitione illâ interna, quæ reflexam semper antecedit, & quæ omnibus hominibus de cogitatione & existantià innata est, ut, quamvis fortè prèjudiciis obruti, & ad verba magis quàm ad verborum significationes attenti, fingere possimus nos illam non habere, non possimus tamen reverâ non habere. (422)
>
> It is true that no one can be certain that he is thinking or that he exists unless he knows what thought is and what existence is. But this does not require reflective knowledge […]; still

> less does it require knowledge of reflective knowledge, i.e. knowing that we know [...] and so on *ad infinitum*. This kind of knowledge cannot possibly be obtained about anything. It is quite sufficient that we should know it by that internal awareness which always precedes reflective knowledge. This inner awareness of one's thought and existence is so innate in all men that, although we may pretend that we do not have it if we are overwhelmed by preconceived opinions and pay more attention to words than to their meanings, we cannot in fact fail to have it. (285)

Descartes' point is not simply that the authors of the Sixth Objections are asking for something chimerical. It is also that they are dissimulating (*fingere*): the claim that this knowledge is not sufficiently available to them at this point in reading the *Méditations* is a pretence. They do so, he says, either because they speak out of prejudice acquired from their childhood and education rather than thinking for themselves as grown-ups, or because they are mounting rote objections rather than paying attention to the meanings of Descartes' words. Any reader who pays close attention to their innate ideas can follow his argument.

This resistance to providing definitions pervades the *Méditations*, just as refusals to provide argument pervade the *Discours* and *Essais*. It is only much later, in the *Principia*, that Descartes attempted to define what he meant by clarity and distinctness, and it is unclear whether even this unequivocally pinned the concepts down.[71] Critics have detected an equivocation about whether a perception is clear and distinct because it feels a certain way, or because it is a perception of a particular sort of thing — in particular, the essential characteristics of some object. The latter view gains support from the wax example.[72] The former gains support from Descartes' insistence, which we have already noted, on the way it feels to perceive something clearly and distinctly. As he says in Meditation 5, 'sum naturæ ut, quamdiu aliquid valde clare & distincte percipio, non possim non credere verum esse' ('je [suis] d'une telle nature, que, dés aussi-tost que je comprens quelque chose fort clairement & fort distinctement, je suis naturellement porté à la croire vraye', 7.69/9.1.55).[73] What is beyond debate is that, at the time he wrote the *Méditations*, he found such definition unnecessary for deploying these concepts in practice. The terms *clair* and *distinct* are first used, without gloss, in the *abrégé* to that text, where it is not clear if they are meant as technical terms (13/9-10). They occur early in Meditation 1, again without a gloss, and again it is unclear if they are meant as independent technical terms: 'distinct'

[71] *Principia*, 1.45-6 (AT 8.1.22/9.2.44). See Perler 2004a, 475. For treatments of clarity and distinctness by British and American philosophers, see Curley 1978, Gewirth 1943, Nelson 1997, Sosa 1997, and Van Cleve 1979.

[72] AT 7.30-4/9.23-6.

[73] For an overview of the debate see Perler 2004a, 474-8. For the view that clear and distinct perception can just be defined by this sort of psychological characteristic, see Loeb 1992, 206. For a defence of the second option see M. D. Wilson 2005, 130.

occurs by itself in the Latin ('non tam distincta contingerent dormienti'), but is rendered as 'clear and distinct' in the French edition ('ce qui arrive dans le sommeil ne semble point si clair ny si distinct que tout cecy', 19/14). The strong impression is that 'clair' has been added for emphasis, rather than for conceptual value. The two terms come into heavy use from Meditation 3 onwards, but something like a definition is finally offered only in Meditation 6, where Descartes roughly equates 'quæ clare & distincte intelligo' ('toutes les choses que [je] conçoy clairement & distinctement') with 'generaliter spectata, quæ in puræ Matheseos objecto comprehenduntur' ('toutes les choses, généralement parlant, qui sont comprises dans l'objet de la Géométrie speculative', 80/63). Clarity and distinctness are not unusual in being employed without having been defined. Descartes talks about truth and falsity from the *abrégé* onwards without gloss, for instance; even when he comes to Meditation 4, which is titled 'De vero & falso' ('Du vray & du faux'), he offers no definition of truth and falsity which would have satisfied scholastic writers.[74] The Second Responses gives definitions of ten terms as part of a geometrical proof of the existence of God and real distinction between soul and body. These do not include *clarus*/*clair*, *distinctus*/*distinct*, *verus*/*vrai*, or *falsus*/*faux* (160-2/124-5).

Descartes is clearly resistant to the idea that he serves his readers best by laying out his definitions explicitly. He conceives of the knowledge acquired in the *Méditations* as knowing-how; he is worried that an insistence on knowing-that will distract his readers from learning the skills necessary more broadly for the practice of inquiry. His readers learn what clarity and distinctness are, instead, from imitating the procedures Descartes acts out episodically in the *Méditations*. As he puts it in the appendix to the Second Responses:

> [Peto] ut, perpendendo exempla omnia claræ & distinctæ perceptionis, itemque obscuræ & confusæ, quæ in Meditationibus meis recensui, eu quæ clare cognoscuntur ab obscuris distinguere assuescant; hoc enim facilius exemplis quàm regulis addiscitur, & puto me ibi omnia hujus rei exempla vel explicuisse, vel saltem utcumque attigisse. (164)
>
> [Je demande] que, considerant avec soin tous les exemples d'une claire & distincte perception, & tous ceux dont la perception est obscure & confuse, desquels j'ay parlé dans mes Meditations, ils s'accoutument à distinguer les choses qui sont clairement connuës, de celles qui sont obscures ; car cela s'aprend mieux par des exemples que par des regles, & je ne pense qu'on n'en peut donner aucun exemple, dont je n'aye touché quelque chose. (127)

Such examples include the exercise with the wax in Meditation 2, the meditator's examination of the concept of God in Meditation 5, and the meditator's examination of the distinctness of mind and

[74] Perler 2004a, 479.

body in Meditation 6.[75] From his earliest writing, Descartes characterised this sort of practice as the cultivation of a skill or craft. Such crafts demand perspicuity, gained not by grasping a definition, but by slowly acquiring a knack. As he wrote in the *Regulæ*:

> Sed Artifices illi, qui in minutis operibus exercentur, & oculorum aciem ad singula puncta attentè dirigere consueverunt, usu capacitatem acquirunt res quantumlibet exiguas & subtiles perfectè distinguendi ; ita etiam illi, qui varijs simul objectis cogitationem nunquam distrahunt, sed ad simplicissima quæque & facillima consideranda totam semper occupant, siunt perspicaces. (AT 10.401)
>
> Mais ces Artisans, qui ont la pratique des ouvrages minutieux, et qui se sont accoutumés à diriger la vue de leurs yeux attentivement sur des points en particulier, ont acquis par l'usage la capacité de distinguer parfaitement des choses aussi exiguës et subtiles qu'on voudra ; pareillement aussi ceux, qui ne dispersent jamais leur pensée en même temps sur des objets variés, mais l'occupent toujours entière à considérer quelques autres très simples et très aisés, deviennent perspicaces. (32, translation altered)

In emphasising the need for his readers to develop skills beyond the ability to grasp others' definitions, Descartes was echoing a controversy playing out more generally in the period. While there were scholastic philosophers, particularly William of Ockham, who used clarity prominently in their accounts of truth, somewhat as Descartes did, the primary source for Descartes' emphasis on clear and distinct vision as necessary for understanding comes instead from the classical rhetorical theory of Quintilian and, in the seventeenth century, of Jesuit authors like Nicolas Caussin.[76] Caussin taught Descartes at La Flèche, and his *Eloquentiæ sacræ et humanæ parallela*, which summarises his classes, gives a good idea of Descartes' exposure to this tradition of thought, which emphasised the need, beyond the bare logical work of syllogism and definition, to appeal skilfully to the senses and the heart when offering demonstrations.[77] This eventually came into conflict with scholastic logic: Jesuit logicians felt that such demonstration, while practically useful, was irrelevant to the business of *scientia*, which was interested in definitions of essences, while rhetoricians increasingly felt that their demonstrations offered a valuable extension of an otherwise impoverished practice.[78] As mechanistic philosophy developed over the course of the century, the split grew more pronounced, with mechanists arguing that a description of the external features of an object, without mention of essence, could serve the same purpose as a traditional definition.[79]

[75] AT 7.30-2/9.1.23-5, 7.65-7/9.1.52-3, and 7.85-6/9.1.98, respectively. See further S. R. Smith 2005, 46-52.

[76] See Jones 2006, Chapter 2.

[77] This point was first made in Gaukroger 1995, 119–24. See also Gaukroger 1997 and Jones 2006, Chapter 2. Caussin's text is Caussin 1619. For more on Caussin see Jones 2006, 68-9, 72-3.

[78] Cave 1985, 158, Fumaroli 1980, and Jones 2006, 69.

[79] Jones 2006, 75. See also Maclean 2002, 144-5.

Descartes' insistence that recognising clarity and distinctness was a matter of skill, and that demands for further rules or definitions only derailed inquiry, made some uneasy. Leibniz, for instance, objected to the lack of definition Descartes had given to his criteria of clarity and distinctness. By failing to offer a clearer account of when clarity and distinctness were in fact present in a perception, Descartes left his work open to the abuse of careless readers. As Leibniz put it in his first published piece of work, *Meditationes de Cognitione, veritate, & ideis*:

> Nec minus *abuti* video nostri temporis homines jactato illo principio: *quicquid clare & distincte de re aliqua percipio, id est verum seu de ea enuntiabile*. Sæpe enim clara & distincta videntur hominibus temere judicantibus, quæ obscura & confusa sunt. Inutile ergo axioma est, nisi clari & dictincti *criteria* adhibeantur, quæ tradidimus, & nisi constet de veritate idearum. (Leibniz 1684, 540)
>
> Nor do I see that the people of our day have *abused* any less the principle that they have laid down, that *whatever I clearly and distinctly perceive about a thing is true or is assertable of the thing in question*. For, often, what is obscure and confused seems clear and distinct to people careless in judgment. Therefore, this axiom is useless unless we use criteria for the clear and distinct, criteria which we have made explicit, and unless we have established the truth of the ideas. (Leibniz 1989a, 26-7, translation altered)

Leibniz is disappointed by the thinness of Descartes' account of criteria, which can only be rescued by two substantial reforms: additional criteria for distinguishing the clear and distinct from the obscure and confused, and an independent way of establishing whether the ideas in question are true. Leibniz thinks that the concepts of clarity and distinctness can only serve their purpose if supplemented with a more developed account of the rules for their application than Descartes was willing to provide. Without these, 'nostri temporis homines' will continue to abuse Descartes' method. He particularly had in mind the work of Nicholas Malebranche. What were Malebranche's supposed abuses, and how did Leibniz and others respond to them?

3.3 An Augustinian reading of Descartes and its critics

Malebranche aimed to synthesise Descartes' approach with the Augustinian account of learning by illumination described earlier in the chapter. From the beginning, this was a fraught undertaking: illumination cannot easily coexist with a Cartesian account of innateness. I discuss Malebranche's synthesis, and then look at Arnauld and Leibniz's response to him. I focus on a single charge common to them both: that Malebranche is abusing the Cartesian appeal to clear and distinct perception in order to present very unclear thoughts. Leibniz, as we have just seen, felt that Descartes had left his

account of solitary inquiry open to such abuses. Leibniz frames his charge against Malebranche within a narrative of a *Meno*-like teaching scene gone wrong.

3.3.1 Malebranche on the possibility of teaching. Malebranche's uptake of Augustine's concern with teaching problems is clear from the preface to his first published work, the *Recherche de la vérité*.[80] The first edition has the following:

> On aime donc mieux exhorter ceux qui ont quelque amour pour la verité, à juger du sujet de cét Ouvrage selon les réponses qu'ils recevront du souverain Maistre de tous les hommes, aprés qu'ils l'auront interrogé par quelques reflexions sérieuses, que de les prevenir par de grands discours, qu'ils pourroient peut-estre prendre pour des lieux communs, ou pour de vains ornements d'une Preface inutile. Et s'ils se persuadent que ce sujet soit digne de leur application, & de leur étude, on les prie de nouveau de ne point juger des choses qu'il renferme, par la manière bonne ou mauvaise dont elles sont exprimées, mais de rentrer toûjours dans eux-mesmes, pour y entendre les decisions qu'il doivent suivre, & selon lesquelles ils doivent juger.
>
> Estant aussi persuadé que nous le sommes que les hommes ne se peuvent enseigner les uns les autres, & que ceux qui nous écoutent n'apprennent point les veritez que nous disons à leurs oreilles, si en mesme temps celui qui nous les a découvertes, ne les manifeste aussi à leur esprit ; on se trouve encore obligé d'avertir ceux qui voudront bien lire cét Ouvrage, de ne point nous croire sur nostre parole par inclination, ny s'opposer à ce que nous disons par préoccupation : Car encore que l'on pense n'avoir rien avancé que l'on n'ait appris par la méditation, on seroit cependant bien fâché que les autres se contentassent de retenir & de croire nos sentiments sans les sçavoir, & qu'ils tombassent dans quelque erreur, ou faute de les entendre, ou parceque nous nous serions trompé. (Malebranche 1674-5, Preface, ã12^{v}-ẽ1^{v})

This is annotated with three marginal references to Augustine: two full citations, in Latin, of passages from *In Iohannis epistulam ad Parthos tractatus*, discussed above, and a reference without citation to Augustine's *De magistro*. (Later editions change the phrasing of the passage superficially, and remove the *De magistro* reference.) The moment is Augustinian in its location at the outset of Malebranche's work: like Augustine, Malebranche is using a problem about the possibility of teaching to make a high-level point about how his work should be pursued or received. Similar passages invoking Augustine's account of illumination occur regularly in the paratexts to Malebranche's later work, particularly his

[80] For classic general studies of Malebranche, see Alquié 1974 and 1977, Gouhier 1926a, 1926b, and 1955-9, Robinet 1965 and 1970, and Rodis-Lewis 1963. Since 1990, there has been renewed interest in Malebranche, both in France and in the English-speaking world. See in particular Bardout 1999 and 2000, Jolley 1990, Moreau 2004, Nadler 1992, M.-F. Pellegrin 2006, Peppers-Bates 2009, Pinchard 1998, Pyle 2003, and Schmaltz 1996.

dialogues, although without explicit reference to Augustine. At the opening of the *Conversations chrétiennes*, for instance, Theodore emphasises that his words did not teach Aristarque directly: 'J'ai parlé long-temps à vos oreilles, mais enfin celui qui me donnoit des paroles, vous en a fait comprendre le sens'.[81] Similarly, in the first moments of *Entretiens sur la metaphysique*, the Malebranchian character emphasises to his interlocutor his indirect role: 'c'est la verité interieure qui doit présider à nos entretiens. C'est elle qui doit me dicter ce que je dois vous dire, & ce que vous voulez apprendre par mon entremise'.[82]

Malebranche is not the only Augustinian writer in the period to accept the account of illumination given in *In Iohannis tractatus*, or to incorporate it into their account of how inquiry should proceed. Another example comes from Bernard Lamy, Malebranche's fellow Oratorian (and the target of his polemic in *Traité de l'amour de Dieu*).[83] The second edition of Lamy's *Entretiens sur les sciences* was augmented with an introductory 'Idée de la logique', which clearly deployed Augustine's doctrine:

> [D]e quelque endroit que nous viennent nos idées, il y en a plusieurs purement spirituelles que nous trouvons en nous. Celui qui est donc toûjours hors de lui même, qui ne pense qu'aux choses qu'il trouve dans les corps, n'est pas capable d'apercevoir tout ce que la nature l'oblige de recevoir comme vrai. Elle nous parle dans l'interieur ; ainsi tout homme qui n'est apliqué qu'à sentir les impressions des sens, n'écoute pas toutes celles de la nature. (Lamy 1694, 67-8)

As with Malebranche, Lamy emphasises the figure of Reason as an internal voice, and exhorts his reader to retreat.[84] But Lamy differs from Malebranche in two important ways. Firstly, Malebranche's core point is that Augustine's illumination doctrine has consequences for how the reader should handle a book like the *Recherche*. Both Lamy and Malebranche argue that our ultimate warrant for our beliefs about 'nos idées […] purement spirituelles' is the reader's independent, internal reason, but only Malebranche places this point in his opening paratexts, and emphasises that this account must govern his reader's relationship to the work they have just started reading. Secondly, Malebranche's underlying account of illumination, and of the location of ideas, is both more worked-out and more idiosyncratic than Lamy's. Lamy is making a rote gesture towards a well-worn and conventional piece of Augustinian theory. The doctrine of Vision in God, which Malebranche used to underpin his own Augustinian account of illumination, is a much less casual proposition: in particular, it is deeply at odds

[81] Malebranche 1677, 2.
[82] Malebranche 1688, 2.
[83] Malebranche 1707. For more on Lamy see Girbal 1964.
[84] See Ariew 2001-2, 63 for Lamy, and more generally for the varieties of *augustinisme cartésianisé* (and *cartésianisme augustinisé*) among Oratorians at the time. The terminology of *augustinisme cartésianisé* is from Gouhier 1978. For more on the dialogue form shared by the two texts, see Cazanave 2007, 227-30.

with Descartes' own thought.[85] It holds that, while ideas are best accessed by the sort of interior turn to meditation practised by Augustine and Descartes, they are not in us; they are in God. As an account of the location of ideas, Malebranche's doctrine is a direct competitor to a theory of innateness like Descartes'.[86] Malebranche could align himself with Cartesianism's opposition to received authority, its corresponding insistence on the individual checking of results, and its rhetoric of withdrawal. But he could not support the theory of innate ideas Descartes used to underpin his anti-scholastic teaching scene in his own *Recherche*, or the analogues of that scene which recur elsewhere in Descartes' work. This conflict between Malebranche and Cartesian theory only grew more pronounced with time. In his first published work Malebranche still accepted Descartes' claim that there is such a thing as pure intellect — a faculty involved in the perception of things like geometrical ideas, but not things like sensations, which depend on the union of the mind and the body. In his mature work, Malebranche rejected any talk of pure intellect, partly to strip any remnants of the scholastic language of faculties from his work, and partly to move even closer to the Johannine/Augustinian position that the mind is not a light to itself.[87] Such departures from orthodox Cartesianism made his name; they also brought him into conflict with authors like Arnauld and Leibniz.

3.3.2 Arnauld and Leibniz against Malebranche. Leibniz, we saw, was dissatisfied with Descartes' criteria because they failed to provide meaningful checks against abuse by people who thought, wrongly, that their ideas were clear. His posthumous 'Examen' showed that he thought of Malebranche as a prominent representative of such people. Arnauld thought the same, and put the point in a harsher, more public, more sustained way than Leibniz ever had. In the preface to *Des vrayes et des fausses idées*, his attack on Vision in God, Arnauld wrote that

> il m'a semblé que je ne pouvois mieux faire, que de commencer par là à luy [i.e. Malebranche] montrer qu'il a plus de sujet qu'il ne pense de se defier de quantité de speculations qui luy ont paru certaines, afin de le disposer par cette experience sensible à chercher plustost l'intelligence des mysteres de la Grace dans la lumiere des Saints, que dans ses propres pensées. (Arnauld 1683, 3)

Arnauld does not think that the Cartesian doctrine of clarity and distinctness has to be abandoned in the face of such abuses, and is committed to the Augustinian and Cartesian language of individual

[85] I rely here on Jolley 1994.

[86] See the *Recherche*, 3.2.4, for Malebranche's opposition to innate ideas. For commentary see Jolley 1990, 67-74, and more generally Nadler 1992.

[87] Jolley 1994, 213-14. For the distinction between early and late Malebranche based on this shift in his thought, see also Robinet 1965, 259ff.

withdrawal and meditation that also Malebranche deploys: 'si j'y ay donné quelque jour' to the topics of his book, he says, 'ce n'a esté qu'en m'attachant d'une part aux notions claires & naturelles que tout le monde peut trouver dans soy même' (3).[88] But, like Leibniz, he thinks the doctrine needs to be extended with rules which minimise the possibility of Malebranche's sort of error. Arnauld lists seven of these in his first chapter. The core of the list deals with sorts of questions which might seem reasonable but which have the effect of derailing, and ultimately discouraging, inquiry:

> La 3. est de ne chercher point de raisons à l'infiny, mais de demeurer à ce que nous sçavons estre de la nature d'une chose, ou en estre certainement une qualité : comme on ne doit point demander de raison pourquoy l'étendue est divisible […] parce que la nature de l'étendue est d'estre divisible […]
>
> La 4. est de ne point demander de définitions des termes qui sont clairs d'eux mêmes, & que nous ne pourrions qu'obscurcir en les voulant définir par ce que nous ne pourrions les expliquer que par de moins clairs. Tels sont les mots de *penser* & *d'estre* dans cette proposition : *Je pensé* [sic], *donc je suis*. […]
>
> La 5. est de ne pas confondre les questions, où on doit répondre par la cause formelle, avec celles, où on doit repondre par la cause efficiente ; & de ne pas demander de cause formelle de la cause formelle, ce qui est une source de beaucoup d'erreurs, mais répondre alors par la cause efficiente. (5-6)

The immediate target of these rules is Malebranche. But Arnauld does not think these habits of questioning are distinctive to Malebranche; rather, he describes them as characteristic of the sort of scholasticism Descartes confronted in his own work. In his gloss on Rule 4, he refers back approvingly to Descartes' handling of the Sixth Objections, which we discussed above. The request for definitions of *penser* and *être* was, in Arnauld's words, 'une fort mechante objection'. The risk in the objection is not so much that the request pushes the inquirer towards answering fruitless questions. It is rather that independent thinking is stalled, because one has to rely on others for such definitions: 'il n'y a personne, qui ne sçache assez ce que c'est que *penser*, & ce que c'est *qu'estre*, *sans avoir besoin qu'on luy ait jamais defini ces mots*, pour estre trés assuré qu'il ne se trompe pas' (5, final emphasis mine). Descartes' defence of the clarity of our innate ideas, and of the legitimacy of our appeal to knowledge of them, is designed to shut down a harmful dependency on the work of others. Arnauld accepts Descartes' charge that the Second Objections authors are trying to exert a chilling effect on inquiry, and admires Descartes' response to the perceived strategy. He is even more stringent than Descartes, however, about what questions are worth asking: in the Fourth Objections, for instance, he holds against Descartes that it

[88] For more on Arnauld's text see the introduction to Arnauld (1683) 1986. For the Arnauld-Malebranche debate more generally, see Moreau 1999 and Roux 2008.

is fruitless to ask why God continues to exist (AT 7.213/9.1.166).[89] Arnauld's gloss on Rule 5 again makes clear that he thinks breaking it is a characteristically 'Peripateticien' habit. The rule gets a simpler formulation in the next chapter: 'quand on est arrivé jusques à connoistre la nature d'une chose, on n'a plus rien à chercher ni à demander quant à la cause formelle' (9). The particular infringement of the rule that interests Arnauld concerns perception: 'puisque la nature de l'esprit est d'appercevoir les objets […] il est ridicule de demander d'où vient que nostre esprit apperçoit les objets' (12). Once we have clearly and distinctly understood that the nature of the mind is to perceive objects, there is no further question to be asked:

> Ainsi, au regard de la cause formelle de la perception des objets, il n'y a rien à demander, car rien ne peut estre plus clair, pouvu qu'on ne s'arreste qu'a ce que l'on voit clairement dans soy-même, & que l'on n'y mesle point d'autres choses que l'on n'y voit point […] (12)

This failure to stop at clarity is characteristic of scholasticism. (Arnauld gives a history of failed scholastic approaches to perception in his Chapter 4).[90] Malebranche has committed the same error. Trying to explain why the mind perceives objects, Malebranche turns to the scholastic notion of representative ideas which are supposed to be somehow distinct from perceptions.[91] But these representative ideas 'sont de vrayes chimeres', and their ultimate effect is to derail Malebranche's thought entirely:

> n'ayant esté inventées que pour nous mieux faire comprendre comment nostre ame, qui est immaterielle, peut connoistre les choses materielles que Dieu a crées, [elles] nous le [font] si peu entendre, que le fruit de ces speculations est de nous vouloir persuadre, aprés un long circuit, que Dieu n'a donné aucun moyen à nos ames d'appercevoir les corps réels & veritables qu'il a créez […] (18)

Malebranche's approach to representative ideas 'luy est commun avec presque tous les Philosophes de l'Ecole'; it has only led him into 'des sentiments plus estranges que les autres' because he has taken it further than normal (19). For Arnauld, Malebranche failed to take seriously Descartes' impatience with characteristically scholastic ways of posing questions which serve only to derail or degrade inquiry. Arnauld's rules, which supplement Descartes' far more minimal account of clarity and distinctness, are an attempt to specify, with the cautionary example of Malebranche before him, what these harmful ways of asking questions are.

Leibniz agreed with Arnauld that Malebranche demonstrated what could go wrong with the Cartesian account of criteria. His *Meditationes* were written during Malebranche's extended controversy

[89] See also Descartes' response at AT 7.243-4/9.1.188. See further Machamer and McGuire 2009, 85.
[90] See Conclusion below.
[91] See generally Nadler 1992 and, for Arnauld's competing account of representation, Nadler 1989.

with Arnauld. There were major topics on which Leibniz sided with Malebranche against Arnauld, and Leibniz often treated Malebranche's work with respect: with Malebranche and against Arnauld, for instance, he held that God's grace must be bounded by laws.[92] But Leibniz was deeply opposed both to Malebranche's occasionalism and to his attempts to defend Cartesian physics.[93] More generally, he was dismayed by the carelessness of Malebranche's approach and the lack of clarity in his doctrines. This repeated Arnauld's general criticism: Malebranche has failed to apply the methodological rigour which must be central to a Cartesianism. Leibniz returned to this charge around 1711, writing an 'Examen des principes du R. P. Mallebranche' which he presented as a continuation of Malebranche's *Entretiens sur la metaphysique*.[94] In that text, Malebranche had his avatar, Theodore, play the role of Socrates (or Reason, or Augustine, or Eudoxe), leading a younger figure, Ariste, to understanding through questioning and meditation. Malebranche had effectively tried to write his own *Meno*, with Vision in God, rather than any theory of innateness, as the engine driving the student's progress. Leibniz designed his response to unpick Malebranche's attempt to occupy the character of the Socratic teacher. Leibniz's text picks up immediately after Malebranche's leaves off. Theodore has already left. Philarète, Leibniz's own avatar, enters, and finds Ariste already struggling to maintain any sense of clarity about Theodore's ideas. Ariste is impressed by Theodore, and admits to a dependence on him for a sense of understanding:

> Theodore, ce Philosophe profond, ce Theologien excellent, m'a ravi à moi-même, il m'a fait passer […] dans un Monde intelligible & éternel. Cependant quand j'y pense sans lui, je retombe aisément dans mes anciens préjugez, & je ne sai quelquefois où j'en suis. (Leibniz (1711) 1720, 212)

Philarète reassures Ariste that the confusion begins with Theodore, who has failed to fully clarify his own ideas:

> il y a quantité de pensées grandes & belles [in Theodore's teaching] ; il y en a même beaucoup de bien vérifiées : mais il y en a aussi, & des plus fondamentales, qui auroient encore besoin d'être éclaircies davantage. (212)

The first step will be to help Ariste; the second will be for Ariste to confront Theodore and, reversing

[92] S. Brown 1995, 55-6. See further Nadler 1994, who sees 'at a fairly general but not trivial level, a notable convergence in their respective philosophical projects' (574). There has been relatively little extended work done on connections between Leibniz and Malebranche. The most thorough collection of material on the links between them is Robinet 1955.

[93] Garber 1995, 299-300 and Parkinson 1995, 204.

[94] 'Examen…' is the title used in the first edition, Leibniz (1711) 1720, which I quote from here. Modern editions often call it 'Entretien de Philarète et d'Ariste', which is Leibniz's manuscript title. For the uniform edition see Leibniz 1875-90, 6.579-94. For the dating of the text see Leibniz 1989b, 618.

the dynamic of the *Entretiens*, to press him to 'éclaircir & […] établir ce qui nous paroîtroit encore obscur ou douteux' (213).

The narrative frame of the 'Examen' allows Leibniz to put his concerns about Malebranche's abuses in terms of their effects on his students. The focus on the young in such attacks on Malebranche was not an uncommon one. The English Catholic theologian John Sergeant, for instance, started his *Method to Science* with a 'Preface Dedicatory to the Learned Students of Both Our Universities' in which he used Malebranche to warn beginners in philosophy about the extremes that Cartesianism could lead to. (In its sentiment and address, the letter is very close to White's letter against Glanvill, discussed in the previous chapter.) Sergeant's text includes the further charge, not present in Leibniz's 'Examen', that Malebranche's excesses resemble religious enthusiasm.[95] Sergeant writes:

> It may seem harsh that I should resemble, tho' [sic] Cartesian *Method* to *Fanaticism*, or pretend they bring a kind of *Enthusiasm* into Philosophy. Let the so much applauded *Malbranche* be my Compurgator. That very Ingenious and Eloquent Person […] has a peculiar Talent of talking Nonsense as prettily and plausibly as any Man I ever read […] (Sergeant 1696, Preface, c8^{v})

Leibniz and Sergeant were both writing decades after Descartes' death. But their attack on the abuses of Cartesianism in terms of damage done to students who encounter it is characteristic of the very earliest hostile responses to Descartes' work. And, as with Sergeant, that attack is paired with worries about a connection between Cartesianism and religious fanaticism very similar to the one which, as we saw in Chapter 1, was already being suggested in Utrecht in the 1640s.

The last two chapters have focused on Descartes' own account of teaching. As we have seen, his approach was cause for some alarm: if he claimed to be motivated by his responsibilities towards his students, critics attacked him as obscurantist and authoritarian. The next chapter returns to the Utrecht Quarrel, which will help us to see how productive concerns about education were in formulating early criticisms of Cartesianism, how such criticisms often echoed Descartes' own worries about what students would do with his work, and how they fitted into broader fears about the effect of anti-Aristotelian philosophy on academic and civic institutions and communities.

[95] For Leibniz's own response to enthusiasm, see Lodge 2015.

4. Teaching Cartesianism: the Utrecht Quarrel

Introduction: following Descartes

In the 'Præfatio ad lectorem' which appeared in the Latin edition of the *Méditations*, Descartes said that the only readers who could successfully follow his argument would be those willing 'seriò mecum meditari' ('to meditate seriously with me', AT 7.9/CSM 2.8). Modern critics have often been willing to follow Descartes' accounts of how his work is to be read, frequently arguing that Descartes has a coherent character or set of characters in mind for the meditator, one who is not a Cartesian at the outset. Two examples, one from a well-known monograph on the *Méditations* and one from a recent guide to the text, illustrate the position well:

> Descartes's method of exposition in the *Meditations* obliges him to show scrupulous respect for the philosophical naïvete of his intended reader. […] He must take no step for which he has failed to make suitable preparation; at no stage of the work may he presume any greater philosophical progress than he himself has led his reader to achieve. (Frankfurt 1990, 16)

> Descartes presumably constructed his narrative by imagining the 'I' as an Aristotelian scholastic or an educated man of good sense […] Even so, readers in later periods may be able to take up the story. […] When Descartes asks only for readers who will 'meditate seriously' with him, he is instructing the reader to approach his metaphysical meditations like religious exercises — as a guide to achieving experiences that each must have for him- or herself. As readers, we are to place ourselves in the position of the meditator and engage with the arguments and exercises fully and directly, undergoing, as much as possible, a cognitive progression so as to grasp the things that Descartes has already discovered. (Hatfield 2014, 53, references omitted)

These critics differ on the background they ascribe to the meditator.[1] Frankfurt imagines the meditator to be entirely naive, a complete beginner. Hatfield, by contrast, grants the meditator a basic education, like Poliandre in the *Recherche*; they may even be a committed scholastic like Epistemon. Others have

[1] For a survey of such readings, see Broughton 2002, Chapter 1.

seen the meditator as an overlapping set of such characters, deliberately designed to appeal successfully to a range of readers: experienced Aristotelians, committed sceptics, confused students who have not yet committed to a school, and so on.[2] It is difficult to make such interpretations bear weight. The first sentence of Meditation 1 lays out a complex of positions which motivate the ensuing argument: that 'multa […] falsa pro veris admiserim' ('j'avois receu quantité de fausses opinions pour veritables'), that this is a longstanding conviction whose causes date back to 'iniens ætas' ('mes premieres années'), that these false opinions are the foundations of one's current principles, which are therefore 'dubia' ('fort douteux & incertain'), that one consequently has to 'a primis fundamentis denuo incho[are]' ('commencer tout de nouveau dés les fondemens'), and that the ultimate point of all this is to establish something in the sciences which is 'firmum & mansurum' ('ferme & […] constant', AT 7.17/9.13). This is a distinctively Cartesian set of positions.[3] It is not clear, for instance, that an Aristotelian like Epistemon would initially subscribe to the view of his childhood (and, implicitly, of his education) which the meditator is describing; nor is it clear that a complete beginner would hold positions which motivate the sort of inquiry Descartes undertakes.

Early modern critics of Descartes' work were often less willing to accept his account of how his work was to teach its audience. They were suspicious of the intellectual coherence of the narrative structure and opening moments of the *Méditations*, and disinclined to view Descartes as a benevolent guide to inquiry: Descartes' relationship to his followers was not one of 'scrupulous respect', but of coercion.[4] Such concerns are a leitmotif in the *Objections*. Gassendi, in the Second Objections, dismissed Descartes' sceptical arguments in the opening meditations as 'machina' ('artifice'), 'præstigiæ' ('sleight of hand'), and 'ambages' ('circumlocution'), and doubted anyone would take him seriously: 'nemo erit, qui persuadeatur te esse persuasum, nihil esse verum ex iis omnibus quæ cognoveris' ('no one will believe that you have really convinced yourself that not one thing you formerly knew is true', AT 7.258/CSM 2.180). Bourdin, whose published work consisted almost entirely of introductory textbooks, was particularly sensitive to Descartes' perceived failures to guide his readers well.[5] The Seventh Objections narrate four successive attempts to follow Descartes through the opening med-

[2] Cunning 2010, 28-36.

[3] Broughton 2002, 28-32.

[4] The quote is from Frankfurt 1990, 16.

[5] These texts are a *Prima geometriæ elementa* (1639), an *Introduction à la mathématique* ('Contanant les connoissances, & pratiques necessaires à ceux qui commencent d'apprendre les Mathematiques') (1643), a textbook on fortifications ('Expliqué, pratiqué et démontré d'une façon facile & agreable') (1655), and a large *Cours de mathématique* that ran to three editions (1661). For Bourdin's work as a mathematics educator see Romano 2006, 357-8 and 362-4, and Romano 1999, 563-4 and 575-6. For his work on military architecture see De Lucca 2012, 96-104.

itations.[6] The character Bourdin adopts starts by following behind Descartes: 'O te felicem, tantis qui in tenebris uno prope saltu evaseris in lucem! At, te quæso, manum ne recuses, ut nutantem firmes, tuis dum insisto vestigiis' ('O fortunate man, to emerge from such darkness into the light almost at one single leap! But please give me your hand and steady my tottering steps as I tread in your footprints', 488/330). Each attempt fails as Bourdin encounters an alleged flaw in Descartes' argument, and with each failure the rhetoric of inferiority drops away. By the fourth attempt, Bourdin is guiding Descartes: 'quid pedem refers? Necdum ego spem abjeci omnem. Sequere me nunc demum' ('Why do you draw back? I at any rate have not yet abandoned all hope. Now at last it is your turn to follow me', 507/345).[7]

Such criticisms of Descartes' account of teaching are sharpest when they arise within a specific, widespread moment of reception by a particular community. Gassendi's complaints about sleight of hand can seem idle or rhetorical, but there are cases where the risks of such deceit appear, to Descartes' critics, quite visible — in their students, their colleagues, their teachers, the disciplinary coherence of their university, and so on. This chapter discusses one such moment of criticism, the opening stages of the Utrecht Quarrel from 1639 to 1643. The quarrel is distinctive is a number of ways. It was the first major institutional controversy about the reception of Cartesianism. While Cartesian thought arrived at Leiden with Adriaan Heereboord's appointment as professor of logic in 1641, tensions about the new philosophy only flared up after 1646, and it took until the 1650s for Cartesianism to become a major presence at other Dutch universities like Frankener, Harderwijk, and Groningen.[8] In English universities, similarly, Descartes only became a major influence on the student body with the publication in the 1650s of books like Henry More's *The Immortality of the Soul*.[9] In France, it was only in the late 1660s that professors at the University of Paris began to discuss Descartes' physical theories.[10] The Utrecht Quarrel was violent enough to shape these later moments of reception: Leiden, for instance, was able to avoid a similar quarrel in the first half of the 1640s partly because the university senate, reacting to the troubles in Utrecht, drew up a conservative charter for teaching philosophy which Heereboord agreed to.[11] The Utrecht Quarrel is made distinctive, too, by Descartes' close involve-

[6]These are at AT 7.488-507/CSM 2.329-45.

[7]For more on Bourdin and the Seventh Objections see Ariew 1995 and Ariew 2003, 170-8. Critics have tended to be dismissive of Bourdin's objections. Recently, more sympathetic readings of the Seventh Objections have appeared: see, for instance, Mullin 2000, Paganini 2008a, Chapter 5, and Paganini 2008b.

[8]Frijhoff and Spies 2004, 306-10, and Ruestow 1973, 34-60.

[9]See the Introduction above.

[10]Brockliss 1981, 46-60.

[11]Ruestow 1973, 39-40

ment: many of his writings from the 1640s, including the Latin and French editions of the *Principia*, the *Notæ*, and the *Letters* to Voetius and Dinet, are deeply marked (and often directly motivated) by events in Utrecht. This profusion of texts makes the quarrel vast. I focus on two aspects of it: Regius's confrontation with Voetius, and Martin Schoock's *Admiranda methodus*. The first allows us to see the complexities involved in representing Descartes within the university; the second shows the character of early attacks on Cartesianism's role in the university. Schoock's book is a broad-spectrum assault on Descartes' work; it is most interesting, though, when read as a sustained attack on the structure of a Cartesian community of the sort which emerged at Utrecht, and the dangers faced by the members of this community. Reading the *Admiranda methodus* in this way helps us see how important Descartes' account of teaching was for early critics of his work, and how their attacks on Cartesianism are framed by concerns about education.

The chapter proceeds as follows. The first section lays out the Utrecht Quarrel, setting particular emphasis on the overlapping intellectual and institutional stakes which made the confrontation between the Cartesians and their critics particularly acute. The intellectual stakes are both philosophical and theological; the institutional stakes concern both the university and the civic balance of power within Utrecht. The second section of the chapter focuses on the *Admiranda methodus*, and especially on Parts 1 and 4 of the book, which contain Schoock's criticism of Cartesianism (rather than his direct criticism of Descartes' arguments); this, I argue, is an attack on the academic community Descartes is trying to create, and responds to Descartes' own remarks on teaching and on the uptake of his work. In Part 1, Schoock tries to describe the structure of Cartesianism, and uses this to draw an analogy with the enthusiastic religious movements which would have been familiar, and threatening, to his northern European readers. Part 4 describes the supposed harms Cartesianism brings about, and Descartes' responsibility towards them; it is while making this final point that Schoock draws his notorious analogy with Vanini.

4.1 Regius, Voetius, and the university

To understand the *Admiranda methodus*, we need to set it within the context of the controversy at Utrecht, the earliest major dispute within a university about the acceptability of Descartes' work. It is normal now, particularly as a result of Theo Verbeek's work, to label this the Utrecht Quarrel, and to view it as analogous to other prominent *querelles* within early modern (particularly Francophone) Eu-

rope.[12] In Descartes' context, a *querelle* is typically a bad-natured dispute between individuals, rather than a substantial debate between larger groups: Baillet describes Fermat, Gassendi, and Bourdin as pursuing 'querelles personnelles' with Descartes, for instance, and says in the latter case that Descartes mistook this for a more substantial, more general war with the Jesuits.[13] It is not clear that the participants in events at Utrecht thought of themselves as bound up in a *querelle*, or a *querela*: Regius and Descartes use neither word to describe the affair in their correspondence from the period. (The Latin title of the *Lettre apologétique aux magistrats d'Utrecht* is *Querela apologetica*, with the sense of 'personal complaint' or 'grievance'.)[14] What matters, in any case, is that the label picks out a reasonably distinct episode in the history of Cartesianism. There was certainly no question, for the first historians of the movement writing late in the seventeenth century, that events in Utrecht formed a isolable, influential moment in the movement's history.[15]

The Dutch university system had grown with enormous speed in the first half of the seventeenth century. In 1600 only two provinces had universities, Leiden and Frankener, both founded within the previous thirty years.[16] By 1650, every province either had a university or an 'Illustrious School' (which were less costly to run, but unable to grant degrees).[17] Other levels of education flourished, too: the first half of the century saw a proliferation of Dutch and French schools in cities, and an increasing number of ordinances against parents who failed to give their students a basic education.[18] Literacy and numeracy in urban populations across the Netherlands were already high, and grew over the period.[19] This growth particularly benefited men from stable financial backgrounds, but both women and the poor were educated to better levels in the United Provinces than in most other early modern states.[20] Such changes accompanied shifts in how training was provided for the major professions. Artillerymen, surveyors, and navigators were in high demand, and all needed a good working knowl-

[12]Descartes and Schoock 1988, which Verbeek edited, has been particularly influential. There has been a substantial amount of theoretical work done recently on early modern quarrels. See in particular Viala 2013, and also Barrotta and Dascal 2005, Bertrand, Saint-Amand, and Stiénon 2012, Burnand and Paschoud 2010, Bury 1998, Cossutta 2000, Van Damme 2008, Dascal 1998, Ferreyrolles 2006, M. Foucault (1984) 1994, Jehasse 1981, and Servet and Servet 2009 and 2012.

[13]Baillet 1691, 2.84.

[14]For more on the sense of 'querelle', see Viala 2013, 8-13.

[15]For such accounts, which tend to be based on Descartes' correspondence, see for instance Daniel 1690, 172-81, and especially Baillet 1691, Books 6 and 7.

[16]Prak 2005, 228-9.

[17]Berkel 1999, 44-5.

[18]Spufford 1995, 257-60. For schooling and literacy in Utrecht, see Booy 1980.

[19]Spufford 1995 and Price 1998, 116. For more on social change in the Netherlands in the period, see Price 2011, Chapter 2.

[20]Spufford 1995, 259-60.

edge of mathematics; as the seventeenth century progressed, this knowledge was increasingly gained through formal education, and the textbook industry for these subjects flourished.[21] To some degree, these developments came at the cost of greater elitism within scientific education. The early vision of technical education in the vernacular promoted in particular by Stevin had dropped out in favour of teaching in French and Latin.[22] The classical humanist education remained standard for children of elites.[23] In Utrecht and elsewhere, urban elites were dominated by the nobility; in addition, they were increasingly dominated over the course of the seventeenth century by university graduates.[24]

Utrecht founded its own Illustrious School in 1634, upgrading it to a university a few years later.[25] The character of the university was slightly different from those elsewhere in the Netherlands: it had been founded by the civic authorities without assistance from the province, and remained closely associated with the city rather than the broader region.[26] It quickly gained a reputation as one of the best, along with Leiden.[27] While much of the student body was Dutch, universities in the Netherlands were distinctive for their highly international makeup: by the mid-seventeenth century almost 40% of the students in Leiden, for instance, came from abroad. In Utrecht, the student body showed Voetius's influence: a substantial portion of its international students were Hungarians, drawn by Voetius's reputation within the Hungarian Reformed Church as a theologian.[28] Utrecht was distinguished, too, by the degree of unrest it experienced across much of the late sixteenth and seventeenth centuries. There had long been tensions between its guilds and its patrician upper classes, which mapped onto a religious divide between strict Calvinists and less hardline 'libertines'.[29] In 1610, a civic militia forced the resignation of the magistrates and, while the causes of the coup were mostly economic, it fuelled religious tensions within the city.[30] Voetius, the dominant figure within the city's Reformed Church, was at the centre of these tensions. He represented a particularly harsh brand of Calvinism, analogous to English Puritanism and influenced by it to some degree, which aimed for further reform (*nadere reformatie*) within the church.[31] While the number of these hardliners was small, they had substantial

[21] Spufford 1995, 255-6, and Prak 2005, 228.
[22] Berkel 1999, 37.
[23] Price 2011, 65-6; see also the letter from Grotius quoted in Chapter 1 above.
[24] Price 1994, 226. For elites in Utrecht, see Kaplan 1995, Chapter 3. See Frijhoff 1981 for a quantitative study of Dutch university graduates and their careers in the period.
[25] The major studies of the history of the university are Jamin 2001 and Kernkamp 1936.
[26] Israel 1998, 573.
[27] Prak 2005, 228.
[28] Israel 1998, 900-1, and Murdock 2000, 61.
[29] Israel 1998, 424-5.
[30] Kaplan 1995, 241-1 and 246-7.
[31] Price 1998, 92-3.

popular support, and remained a powerful political force in the city well after 1610.[32] Voetius clashed with the city magistrates repeatedly — for instance, on questions about the lawfulness of banking.[33] Ultimately, his further reform movement failed; Voetius himself remained dominant until mid-century, when a liberalising movement began to take hold under the influence of Cocceius.[34]

Unsurprisingly, the two sides in the Utrecht Quarrel disagree on who started it, or when it began in earnest. Descartes claimed in the *Lettre apologétique* that Voetius set off the quarrel in 1639, with a set of disputations titled *De atheismo*.[35] The *Narratio historica* which the university senate commissioned, by contrast, dates the quarrel back to 1636, when Regius started manoeuvring for a position at the university (9/83).[36] He succeeded in getting an appointment as professor of medicine, and very soon asked permission from Voetius, professor of theology and rector of the university, to expand the material covered in his teaching to include aspects of physics. Voetius's concerns, as the *Narratio* describes them, were initially to do with the remit of the different disciplines: he was concerned that Regius would intrude onto the work of the physics professor, and instead allowed him to give a series of disputations on physiology, which would allow him to explore some of the mechanical questions that interested him while remaining firmly within the domain of medicine (12-14/85-7). Two such series took place between 1639 and 1640.[37] Over the course of the two years, they became increasingly controversial. Despite Voetius's caution, Regius's second series of disputations focused more and more on theoretical questions about mechanical explanation (26/96). This went beyond a matter of professional turf warfare; once stated at this level of generality, the tensions between Regius's thought and the official Aristotelianism of the university were impossible to ignore. From 1640, Regius's efforts to defend his views spread beyond his own disputations. He began to attract controversies in print,

[32] Israel 1998, 585.

[33] Geyl 1961, 216-17.

[34] Price 2011, 190.

[35] AT 8.2.204-5. See Verbeek 1993b. For a good overview of the practice of disputation, which structures much of the Utrecht Quarrel, see Traninger 2012.

[36] *Narratio Historica* 1643, translated in Descartes and Schoock 1988, 71-123. Inline references in this section are to the original Latin edition and Verbeek's translation. This is the most detailed contemporary account we have for the quarrel. The original texts of the university senate's acts are reproduced in Kernkamp 1936-40. From the Cartesian side, the most important primary source is Descartes' correspondence, as well as his three long letters (to Dinet, to Voetius, and to the Utrecht magistrates). For a narrative account by Descartes of the early stages of the quarrel, see AT 7.582-603. The correspondence with Regius is particularly useful; while it is given in AT, a substantially improved edition of the correspondence is given in Descartes 2002. Descartes' three long letters are translated and annotated in Descartes and Schoock 1988. The major secondary source on the Utrecht Quarrel is Verbeek 1992. Briefer accounts of the quarrel are given in the entry on 'Utrecht, University of' in Ariew et al. 2010, Berkel 1984, Bunge 2001, 34-44, and Cook 2007, 243-7.

[37] These were published as Regius 1641b and 1641a, respectively. See Descartes 2002 for a translation and critical edition.

and to intervene in other professors' disputations (19-20/91-2). Authorities at the university were increasingly anxious to intervene, but were cautious about doing so publicly. In late 1641 the theology professors, Voetius and Dematius, both appealed to Regius in private (23-4/94). The *Narratio* implies that they hesitated to attack publicly in part because they were unsure Regius fully understood the range of controversy he was courting: Voetius had to point out to Regius several 'præcipitia & absurda' consequences of his views and, in December of that year, Regius reportedly admitted in public that he had underestimated the implications of his work, particularly in theology (23/94 and 31/100). When private overtures failed, Voetius publicly defended a set of theses which were hostile to Regius (25-30/96-9). He followed this with a short treatise against the new philosophy, *De rerum naturis & formis substantialibus*.[38] In January 1642 Regius corresponded with Descartes about what his next move should be.[39] Following Descartes' advice, Regius published a *Responsio* to Voetius's treatise, which appeared just after the winter holidays ended (53/116-17).[40]

The core topic in these texts — Regius's two disputations, Voetius's treatise, and Regius's *Responsio* — was the late scholastic version of Aristotle's theory of substantial forms.[41] Particularly in *Metaphysics* Z, Aristotle had developed an account of forms as the essences of substances. This account underpinned three other major pieces of his thought: it gave him a theory of taxonomy, as different forms mapped onto unique, discrete species; it gave him a theory of normative assessment, as forms provided standards by which a particular thing's degree of perfection could be judged; and it gave the fundamentals of his theory of causation, as forms determined what was necessary to an object and what was merely accidental.[42] Scholasticism altered this in a number of ways.[43] More so than Aristotle, it used forms to support a vision of clearly and rigidly distinguished kinds in nature.[44] It gave forms a strong causal role: whereas for Aristotle a form was an endpoint toward which natural motion tended, the Middle Ages turned forms into causally efficacious motors driving this motion.[45] Voetius accused Regius of denying that things come with a 'motor intrinsecus' built in.[46] Finally, it brought

[38]The full text is given at 36-51/103-15.

[39]AT 487-520; however, for a critical edition of this correspondence which supersedes AT, see Descartes 2002, 95-118. Baillet gives a detailed account of the circumstances surrounding Voetius's treatise and the Cartesians' response to them; see Baillet 1691, 2.139-58.

[40]Regius 1642. For more on this text see Fowler 1999, 248-68.

[41]For an overview of the question of substantial forms in the 1640s and what was at stake in it, see Ruler 1995, on which I base my discussion in this section.

[42]For an introduction to Aristotle's version of this theory, see Shields 2007, Chapters 2, 6 and 7.

[43]For an overview of scholastic versions of the theory of natural forms and their differences from Aristotle see Pasnau 2011, Chapter 24.

[44]Ruler 1995, 57-8. See further Balme 1980 and P. Pellegrin 1985, and more generally P. Pellegrin 1982.

[45]Ruler 1995, 68-9. See further Lang 1992, Part 2.

[46]*Narratio Historica* 1643, 40.

them into alignment with the Biblical account of creation: overlapping with Aristotelian terminology, the Vulgate translation of Genesis 1 spoke of God creating living things *in species suas* and *in genera sua*, and this prompted theologians looking to develop a Christian account of underlying natural order to do so in the Aristotelian language of substantial forms.[47]

Regius refused to accept that the Genesis passages had to be interpreted in Aristotelian terms.[48] Across a range of phenomena — species in nature, motion in physical bodies, human nutrition — he argued that substantial forms served no explanatory purpose, and that perceptible qualities could simply be treated as the mechanical properties of their parts. More strongly, and in tension with Descartes' own views, Regius proposed that the theory of substantial forms could be reduced to a theory of accidents of matter.[49] The consequences of Regius's attack on substantial forms give a good illustration of just how tightly bound together philosophical questions were with institutional and doctrinal ones, and just how fast these consequences could multiply. He faced trouble on at least six fronts. (1) The Aristotelian language of substantial forms provided much of the technical language within which material in the higher faculties, particularly medicine and theology, was presented. Those like Voetius who taught in these faculties were alarmed by the prospect that, if the reformers succeeded in discrediting such material within philosophy, their incoming students simply would not have the conceptual tools to do the advanced work they were supposedly being prepared for.[50] As the university senate wrote in its 1642 judgement on Regius:

> [Novam Philosophiam juventum impedit] quò minus ad culmen eruditionis provehantur; eò quod […] technologemata in auctorum libris, professorumque lectionibus & disputationibus [sic] usitata, percipere nequit […] (66)
>
> [La nouvelle philosophie empêche les jeunes] d'atteindre les sommets de la science, puisque […] ils ne peuvent entendre les termes techniques employés dans les livres des grands auteurs et dans le cours et les disputes de leurs professeurs […] (122)

(2) These questions about dependencies between disciplines brought with them questions about hierarchy. Voetius maintained the scholastic conception of philosophy as ancillary to the higher faculties, and particularly theology; on that view, the topics taught by philosophers were determined by the needs of theologians.[51] Regius was asserting the right of philosophers to assess these topics themselves and, if they wanted, to exclude them from discussion. (3) Scholastics like Voetius strongly

[47] Genesis 21 and 24-5; see *Narratio Historica* 1643, 38.
[48] Regius 1642, 14-15. Ruler 1995, 39.
[49] Verbeek 1992, 13-16.
[50] Ruler 1995, 28.
[51] Ruler 1995, 30. See Chapter 1 above.

penalised theories which did damage to the settlement they had negotiated between Aristotelianism and Christian doctrine, and maintained a presumption in favour of divine truth over new work by scholars.[52] As Voetius wrote in *De rerum naturis*:

> Verum enim vero consonat; Et millies doctam ignorantiam profitebuntur philosophie Christiani, quàm ut vel minimâ specie præjudicium adferant veritati divinæ. (39)
>
> Car le vrai s'accorde avec le vrai. Et les philosophes chrétiens feront mille fois profession d'une docte ignorance plutôt que de mettre en question, si peu que ce soit, la vérité divine. (105)

(4) It was not clear to scholastics that, if the account of fixed natural species provided by the theory of substantial forms was abandoned, the reformers had a principled way of distinguishing between types of things in nature. What could be used instead to define the essential features of species? How were the classificatory projects of natural philosophers to proceed? Voetius wrote:

> Nulla enim, juxta ipses, haberi posset differentia substantialis inter lupum, ovem, balenam, elephantem, serpentem, lapidem, arborem, napellum, aconitum, triticum[,] solem, lunam, terram; adde & horologium, ligneum equum Trojanum, Phalaridis bovem ænum, volantem columbam Archytæ, caput æneum [sic] Sylvestri Pape, statuam loquentem Alberti M[agni,] domum, sellam, veltem &c. (39-40)
>
> Car, d'après eux, il n'y a aucune différence substantielle entre le loup, la brebis, la baleine, l'éléphant, le serpent, la pierre, l'arbre, le navet, l'aconit, le froment, le soleil, la lune, la terre ; et ajoutons l'horloge, le cheval en bois de Troie, le bœuf en cuivre de Phalaris, la colombe volante d'Archytas, la tête en bronze du Pape Sylvestre, la statue parlante d'Albert le Grand, une maison, une chaise, un vêtement, etc. (106)

(5) Nor was it clear to a scholastic that Regius could draw any principled distinction between a thing's accidental and necessary qualities. The causal account of forms as motors driving the development of essential qualities, mentioned above, was under attack. (6) The problem here became particularly acute in Regius's account of mind-body unity. The standard position viewed the soul as the substantial form of the body, and a human body with a soul was an *ens per se*. In his response to Voetius, Regius did away with the appeal to substantial forms, and instead offered a description of mind and body as distinct, accidentally conjoined substances: 'Ex hac et corpore non fit unum ens per se, sed per accidens, cum singula sint substantiæ perfectæ seu completæ' ('The mind and the body do not give rise to a single *ens per se*, but *per accidens*, because both are perfect or complete substances').[53]

[52] Ruler 1995, 59.

[53] Regius 1641a, Disputation 3, Thesis 9.

Regius's opponents were alarmed by the theological implications of this. The Fourth Lateran Council had established that the Last Judgement would involve the resurrection of bodies, and Calvin had maintained the dogma in the *Institutes*.[54] The Aristotelian defence of the doctrine relied on the unity of soul and body, explained in terms of substantial forms: the soul was the form of the body, and could not exist as a substance distinct from it. But if, as Regius had it, the soul and body were distinct substances, capable of existing by themselves, what need was there for the resurrection of the body?[55] Descartes, too, felt that Regius had gone too far here, and defended a stronger account mind-body unity, deploying the language of substantial forms to do so.[56] Regius's argument owed more to David Gorlaeus, who formulated the *per accidens-per se* distinction, than it did to Descartes.[57] The point is important: Regius was not simply a mouthpiece for Cartesianism, but an ambitious, if clumsy, synthesizer of a number of different, and sometimes mutually hostile, modernising projects available in the 1630s and 40s.[58]

The *Responsio* represented a significant escalation of the quarrel. Regius's colleagues at the university considered it wildly intemperate (53/117). Just as seriously, it alienated the civic authorities, who were increasingly being drawn into the dispute. In December 1641, Regius got the burgomasters to have Voetius modify the theses with which the university began its public rebuttal of the new philosophy, and concerns about remit flared up once more: by appealing directly to the city, the university complained, Regius was acting on 'autoritas ab illo usurpata' ('une autorité qu'il s'est usurpée', 30/99, translation altered). The burgomasters subsequently negotiated a settlement between Regius and the university targeting these questions of institutional and disciplinary authority: they got Regius's assurance that he would not 'Academiam rubare […], modo Theologi limites indicarent, eorumque indicium & circumscriptionem exhiberent' ('troubler l'Académie, pourvu que les théologiens précisent les limites dans lesquelles il devrait se tenir', 52/116, translation altered), and asked the theologians to draw up a list of 'conditiones tutò philosophandi' ('moyens de philosopher sans danger', 53/116) which Regius could follow. *De rerum naturis* and the *Responsio* destroyed this fragile peace. The burgomasters did not find out about Regius's book until he had managed to distribute a number of copies; this infuriated them, and they confiscated as many as they could (53/117). On February 21, the university senate drew up a formal complaint and presented it to the municipal council (54/117). The

[54]Calvin 1559, 3.25.3.
[55]Lüthy 2012, 149, and Descartes and Schoock 1988, 44.
[56]Descartes 2002, 113-16 (AT 3.503-5, CSM 207-8).
[57]Lüthy 2012, 38 for the distinction as Gorlaeus uses it, and 139-61 for Gorlaeus's influence on Regius.
[58]Berkel 1999, 48.

professors had three points: that it was unacceptable to attack a colleague in print, particularly using that colleague's name explicitly; that they disapproved of Regius's style, which consisted of 'verba insolentia' rather than sober argument; and that they rejected the new philosophy, because it damaged established Aristotelianism, because (as we have seen) it hurt students' chances of succeeding in the higher faculties, and because it tempted 'improvida juventus' towards 'falsæ & absurdæ opiniones', particularly in philosophy (66/122).[59] The council agreed, and issued a decree to printers and booksellers banning 'Boecxkens ofte Geschriften tegens Theses of Corollaria by de Heeren Professoren ofte Studenten op d'Academie alhier omme te disputeren, voorghestelt' ('des pamphlets ou des livres contre des thèses ou des corollaires soumis à dispute dans l'Académie de cette ville', 67/123).

Given how heavily narratives of the Utrecht Quarrel turn on differences between Regius, Voetius, Descartes, and senior administrative bodies, it bears emphasising how important a presence *improvida juventus* is in the *Narratio*. Complaints about the new philosophy were often entered in terms of student welfare, as we have just seen, and in terms of the professors' duties towards their students, where these were defined in professional terms. So the theology professors worried that if they let Regius's teaching take hold

> eorum qui hic studia su absolvissent promotioni impedimentum illatum iti, & consequenter fidelitatatem [sic] suam accusandam non sine ratione metuerent […] (27)
>
> ceux qui avaient fait leurs études ici éprouveraient des difficultés à faire carrière. Bref, ils avaient la juste crainte qu'ile ne soient accusés de manquer à leurs devoirs […] (97)

The *Narratio* has a second use for the student body. In the story it tells, growing student unrest indexes growing tensions between Regius and Voetius, and anarchy in the classroom gives a concrete, local image of the disorder new philosophy was supposed to cause more generally. It describes one such dispute in detail:

> [S]upplosionem concitabant nonnulli Medico [i.e. Regius] faventes, ut scilicet abrumperent oppositionem Theologiæ studiosi, qui pressè ac solidè […] urgebat [Medicum] […] Sed cum nonnulli ex Medici asseclis & discipulis pergerent aliquities interturbare dictum Theologiæ studiosum […] factum est tandem, ut sub finem disputationis supplosio inchoata à Medici fautoribus, continuaretur, ipso etiam medico, disputationis præside, loquente: quod in hâc Academiâ planè est insolens. (22)
>
> [L]e tapage ne s'arrêta plus : il avait été organisé par quelques amis du médecin dans le but de faire cesser l'intervention d'un étudiant de théologie qui, d'une façon concise et solide […] acculait le médecin […] Mais comme plusieurs partisans et disciples du médecin ne

[59] The full text of the professors' request and the municipality's response is at 63-9/120-3.

> cessaient d'interrompre par leur tapage l'étudiant de théologie […] une chose très inusitée dans l'Académie s'est produite : le chahut initié par les amis du médecin vers la fin de la dispute, persista cependant même que le médecin, qui était Président, s'adressait à la salle. (93)

The disturbance comes, initially, from Regius's students. But the disputation closes with an even greater uproar from the Aristotelians in the room: 'ingens totius Auditorii orta est supplosio, quâ Medicus explodi videbatur' ('il se déclencha dans tout l'auditoire un chahut énorme par lequel on semblait conspuer le médecin', 23/94). The students give an image of the power of each movement: the greater force of the Aristotelian crowd and the greater power of the Aristotelians' arguments come hand in hand.

Regius was effectively silenced by the involvement of the university senate and the magistrates, and Descartes subsequently became directly engaged in the quarrel. The magistrates only halfheartedly enforced their ban on publishing anti-Aristotelian material, and Descartes thought the civic authorities, interested in limiting the power of Voetius and the *nadere reformatie* branch of the church, might be sympathetic to him.[60] His *Letter to Dinet* began to circulate around this time, and was published in the second edition of the *Méditations* in 1642.[61] Descartes started writing the letter in January of that year in response to Bourdin's Seventh Objections.[62] As the Utrecht Quarrel unfolded, he decided to add a long second section to the letter attacking Voetius publicly.[63] While Descartes' thought had gained support in the Netherlands, its reception remained limited to academic circles; it was not a popular philosophy.[64] By contrast, appealing to the concerns of the authorities, and with a nod to the 1610 uprising, he painted Voetius as a zealot and a troublemaker:

> Cluet Theologus, Concionator, Disputator; magnamque sibi apud plebejos homines gratiam potentiamque conciliavit, ex eo quòd […] ferventem & indomitum pietatis zelum præ se ferat, interdumque etiam dicteriis scurrilibus plebeculæ aures demulceat […] (AT 7.584)
>
> C'est un homme qui passe pour théologien, pour prédicateur ; un dialecticien connu, qui a obtenu une grande réputation et un grand crédit parmi la populace, de […] [ce qu']il affiche son zèle indomptable pour la religion, tout en caressant par ses sarcasmes l'oreille du menu peuple […] (Descartes and Schoock 1988, 142)

[60] Rinsum and Koops 2016, 10. For the history and constitution of the magistrates, and tensions particularly with clerical forces in the city, see Kaplan 1995, Chapter 2.

[61] AT 7.563-603, translated in Descartes and Schoock 1988, 131-51.

[62] AT 3.523.

[63] AT 7.582-603. See Descartes and Schoock 1988, 128, and Verbeek 1992, 19.

[64] Verbeek 1992, 6. For a useful contrast with the reception of Gassendi, see Lennon 1993, 26, and more generally H. Brown 1967.

The quarrel was pushing Descartes in uncharacteristic directions, towards questions of religion and of politics, which he developed at greater length in the *Letter to Voetius*.[65]

In response to the *Letter to Dinet*, Voetius did two things. He turned to institutions, appealing to the university senate, which responded by issuing the *Testimonium Academiæ Ultraiectinæ* and *Narratio historica*.[66] And he turned to books, commissioning one of his allies at the university, Martin Schoock, to write a polemic against Descartes and his followers. This was the *Admiranda methodus*, which appeared anonymously in 1643. It provided the motor for the next stage in the quarrel: Descartes, thinking it had been written by Voetius himself, responded with the *Letter to Voetius*.[67] Descartes' two letters were condemned by the university senate, which left Descartes open to legal action. He avoided this, but spent much of the remainder of the 1640s trying to get the Magistrates to support him; this culminated in the *Lettre apologétique aux magistrats d'Utrecht* of 1647, the longest defence he ever wrote of his philosophy.[68] It went unanswered: sympathetic to Descartes or not, the magistrates had no interest in stirring up the case again.

4.2 Schoock on Cartesian communities

Martin Schoock had read philosophy and theology at Frankener and Leiden before returning to his native city, Utrecht, where he studied with Descartes' disciple Reneri at its newly founded Illustrious School.[69] He graduated in 1636 with a thesis *De natura soni et echus*, and when the school was converted to a university he became its first professor of philosophy.[70] Despite this early brush with Cartesianism, by his late twenties he had settled into a mainstream Aristotelianism which, his later textbooks make clear, he maintained for the rest of his life.[71] He had also cast his lot with Voetius on religious questions early on, and published an Dutch-language anti-Remonstrant tract in 1638.[72] By the time the Utrecht Quarrel was in full swing, he had moved on from the city: first to Deventer, where he taught Greek and geography, and then to Groningen, where he had a chair in logic and physics. Polemical hostility

[65] AT 8.2.1-194, partially translated in Descartes and Schoock 1988, 327-99. For more on the political content of these letters see Verbeek 1990, and for the co-occurrence of politics and theology see Carraud 1993.

[66] Descartes and Schoock 1988, 73-4.

[67] For more on the letter to Voetius see Kambouchner 1998.

[68] AT 8.2.199-317. See Bos 1999 for the date of this text's composition, which is later than Adam and Tannery thought.

[69] For Schoock's life and career see Dibon 1954, 180-8, Schmutz 2008b and Descartes and Schoock 1988, 48-61.

[70] His thesis was published the following year as Schoock 1637.

[71] See in particular Schoock 1658 and Schoock 1660. For more on Schoock's Aristotelianism see Rijen 1997, 63-8, and Descartes and Schoock 1988, 50.

[72] Schoock 1638.

to Cartesianism became one of the shaping forces of Schoock's career: in the 1650s he planned a multi-volume treatise against Cartesianism, of which only the first volume, *De scepticismo*, ever appeared.[73]

Schoock was in his late twenties when he wrote the *Admiranda methodus*.[74] The text is unusual among the published material which drove the Utrecht Quarrel: it is the only standalone book that did not start life as a disputation or a letter. It was published in 1643 as a duodecimo volume of just under 400 pages by Johannes Janssonius van Waesberge, a member of a prominent Dutch publishing family who had established his own shop in Utrecht only the year before.[75] Van Waesberge clearly maintained his relationship with the Voetian end of intellectual life in Utrecht, and later in the 1640s published five volumes of Voetius's collected disputations.[76] (Though he also worked with material by the new philosophers, putting out Gorlaeus's second treatise, *Idea physicæ*.)[77] The *Admiranda methodus* is likely to have been one of van Waesberge's earliest commissions, and the number of printing errors indicates the book was put together hastily.[78] The text begins with a lengthy preface (*2^{r}-***9^{v}/157-72), followed by other paratexts: a poem, an epigraph, additions and errata to the preface, and, finally, a brief introduction (1-14/173-86). The main text is in four sections. The first deals with Descartes' followers and what is required to be a Cartesian (14-59/187-209). The second attacks Descartes' metaphysics, natural philosophy, and mathematics directly (59-171/211-65). The third is on the weakness of Descartes' arguments against scepticism and atheism (172-245/267-305). The fourth argues that Cartesianism tempts his followers towards scepticism, atheism, and enthusiasm; this case is made using an extended, and notorious, analogy with Vanini (245-73/307-20). The only closing paratext is a table of contents.

When they consider it at all, historians of ideas have typically dismissed the *Admiranda methodus* as a 'libellous pamphlet' (in the words of one prominent early twentieth-century survey).[79] It certainly inaugurated a flurry of anti-Cartesian pamphleteering across western Europe.[80] But the recent reevaluation of the interest of the Utrecht Quarrel has brought with it a reassessment of Schoock's book.[81]

[73]Schoock 1652. See Del Prete 2003.

[74]Schoock 1643, translated in Descartes and Schoock 1988, 157-320. Inline references in this section are to these editions.

[75]For the family, see Frijhoff and Spies 2004, 268-9, Willems 1880, xli-iii and lix-lxi, and Eeghen 1960-1978, 4.157-9. For the locations and operating dates of van Waesberge's businesses (he eventually moved to Amsterdam), see Gruys and Bos 1999, 76.

[76]Voetius 1648-69.

[77]Gorlaeus 1651. See Lüthy 2012, 33.

[78]Descartes and Schoock 1988, 155.

[79]Acton and Ward 1902-12, 4.788.

[80]See Verbeek 1997.

[81]For reassessments of the *Admiranda methodus* as a whole see especially Savini 2011, 71-102, as well as Savini 2008, the response to this paper in Del Prete 2008b, and the commentary in Descartes and Schoock 1988. For

His attack on Cartesianism is founded on a wholesale rejection of Descartes' arguments. He thinks, in particular, that the appeal to clear and distinct perception to ground knowledge is illegitimate. But his approach is distinctive primarily for its concern with the moral consequences of Descartes' thought as they play out within the university; Schoock's argument against Descartes relies on a compelling description of these consequences as much it does on direct refutation of his philosophy.[82] For Schoock, these consequences show up in the community of readers and followers of Cartesianism: firstly in the internal structure of this community, which he describes as authoritarian; and secondly in the positions (scepticism, atheism, and enthusiasm) which members of this community are drawn towards. They make themselves known, too, in the destabilising effects a group of Cartesians can have on the broader institution of which they are a part. The University of Utrecht is an example, for Schoock, of an institution haunted by Cartesianism in this way, and the Utrecht Quarrel itself shows clearly the moral failures of a Cartesian community. The first part of this section deals with Schoock's description of this community in Part 1 of the *Admiranda methodus*. The second part deals with Schoock's account of the harms of Cartesianism in Part 4 of his book.

4.2.1 The internal dynamics of Cartesianism. The preface to the *Admiranda methodus* opens with the founding of the Illustrious School in Utrecht. Even then, Schoock says, 'cujusdam Renati des Cartes nomen primo mussitari, dein, quod philosophorum aquila diceretur, apud nobiles quosdam & magnates maxime, jactari inceptum est' ('on parlait en chuchotant d'un certain René des Cartes, et ensuite, comme on le disait un aigle parmi les philosophes, il fut beaucoup question de lui parmi certaines personnes de qualité et surtout parmi certains hommes de pouvoir', 157, translation altered). The image is of Descartes as a fascinating, absent figure within the university from its earliest moments. His chief representative was Reneri, who tried to impress on his students the promise of Descartes' work, 'tam perspicuum & solidis demonstrationibus suffultum Philosophiæ systema […], ut nunquam perfectius Sol aspexerit' ('un système de philosophie […] si clair et soutenu par de démonstrations si solides que ce serait le plus parfait qu'on ait jamais vu sous le soleil', 157). This was 1636; Schoock respected Reneri and, as we have seen, spent that year working under him on a cautiously modernist natural philosophy thesis. It was only the following year, with the publication of the *Discours*, that Schoock could read Descartes' work for himself:

Schoock's charges of atheism, scepticism, and enthusiasm, see Heyd 1995, Chapter 4, Savini 2002, and Verbeek 1991. Volpilhac 2015, 259-61 deals with Schoock's complaint that Descartes is opposed to learning.

[82] Savini 2011, 73.

> [D]e improviso anno 1637 Leydæ liber quis Gallicus, nullum authoris nomen præferens, quadruplicique titulo [i.e. the *Discours*, 'Dioptrique', 'Météores' and 'Géométrie'] insignis e vulgatur ; cujus patrem simulac virum sc. ex annalium memoria Cartesium esse intellexi, eum mihi comparavi & pro qualiconque scientiæ modulo in Gallica lingua, quam primum pertinaci diligentia evolvere cœpi, identidem ex me quærens ; hiccine esse ille *ἀντὸς* inter philosophos, qui brevissimo temporis spatio magna illa Aristotelis, Platonis, nomina obliterare posset ? nihil tamen definire audebam, quod existamarem me ex turba infelicium illorum hominum esse, quos ut mysteriorum suorum incapaces non semel in Methodo author proscribit, & ad sacræ ignorantiæ insulas ablegatos cupit. Postea alios, quos credebam nomen quod inter eruditos ferre, in consilium adhibere cœpi […] sciscitari ; ex quibus cum discerem, in spisso libro, quicquid nonnullis videretur, magno conatu maximas nugas agi ; per otium, ut idem propius explorare possem, librum sepositum relegere cœpi […] (Preface, *3^{v}-*4^{r})
>
> Voilà cependant qu'en 1637 parut soudainement à Leyde un livre français, anonyme et remarquable par son quadruple titre. Or je compris que le père en était notre homme, ce même Descartes dont j'entendais parler depuis si longtemps. Je me le procurai donc et me mis à le lire, avec effort tout d'abord en raison de ma piètre connaissance du français, mais sans cesser de me demander si c'était là le philosophe qui, dans le plus court délai, saurait faire oublier les grands noms d'Aristote et de Platon. Je n'osais pourtant rien conclure, croyant que j'appartenais à la foule des malheureux dont l'auteur déclare publiquement plus d'une fois dans sa *Méthode* qu'ils sont incapables de comprendre ses mystères, et qu'il veut les bannir aux îles de la sainte ignorance. Plus tard, je commençai à consulter d'autres personnes que je pensais avoir un certain renom parmi les érudits […]. Or, ayant appris que, pour leur part, ils estimaient qu'il n'y avait, dans ce livre concis, que des balivernes, je le mis de côté pour le relire dès que j'aurais le loisir d'y consacrer plus d'attention. (158)

Schoock has switched from institutional history to autobiography. The structure of the *Admiranda methodus*, with its lengthy preface, already paralleled that of the *Discours*, and here he is appropriating Descartes' own opening move in that text. Descartes had started with a description of the promise made to him about the education he was to receive: 'on me persuadoit que, par leur moyen [i.e. des lettres], on pouvoit acquerir une connoissance claire & assurée de tout ce qui est utile à la vie' (AT 6.4). He then narrated his encounter with the *lettres* themselves, and the collapse of this hope: '[je prenois] la liberté de […] penser qu'il n'y avoit aucune doctrine dans le monde, qui fust telle qu'on m'avoit auparavant fait esperer' (5). That failure motivated his decision to seek truth solely 'en moymesme, ou bien dans le grand livre du monde' (9). Schoock transposes this movement: it is now Descartes' philosophy, rather than scholasticism, which makes false promises to students. As in Descartes' story, the promise collapses when the work is actually encountered; rather than driving Schoock to seek

stability *en soi-même*, however, he moves in the opposite direction, appealing outwards to 'eruditum'. Descartes had used autobiography to paint scholastic teaching as seductive but hollow; Schoock uses the same strategy to turn the charge back on Descartes himself.

Schoock, then, has gotten out from the Cartesian spell. Part 1 of the *Admiranda methodus* describes those who stay. Schoock structures his discussion around five criteria which Descartes supposedly sets for his followers; each chapter takes up one of these in turn. The first criterion targets the past. Cartesian method is an 'ars oblivionis', and everything learnt so far must be discarded: 'Omnium quæ didicit oblivisci debet Cartesianus discipulus; quo felicius contemplari' ('Le disciple cartésien doit oublier tout ce qu'il a appris afin de pouvoir d'autant mieux contempler', 18/189). The second targets the future. One must henceforth stay away from books: 'Cum libris nullum unquam nobis futurum commercium' ('Nous n'aurons rien à voir avec les livres', 27/193). The third is about the supremacy of Descartes' authority and the consequent irrationality of the movement: 'Cartesii præceptoris authoritas instar omnium rationum futura est' ('L'autorité de Descartes me tient lieu de toutes raisons', 33/197). The language of political tyranny is present throughout: Descartes acts 'velut […] in republica literaria dictator' ('comme s'il était dictateur de la République des Lettres', 22/190). The fourth again targets the future. Echoing the argument of the preface, the point is about hope:

> Semel si Cartesium sectari incepero, nunquam ab eo divortium faciam, sed spe plenissimus eorum etiam resolutionem ab eo aliquando exspectabo, quæ alii ab homine quo cognisci non posse, frustra jactant. (43-4)
>
> Si je me mets à suivre Descarte, je ne le quitterai jamais, mais, plein d'espoir, attendrai de lui la solution de toutes les questions qui, selon d'autres, ne peuvent être résolues par personne (202)

The fifth is an injunction against entertaining any other doctrine: 'omnis doctrina […] abeat in contemptum' ('toute doctine […] sera livrée au mépris', 54/207). The list of authorities Schoock gives is constructed to highlight the diversity of the intellectual world that is supposedly being abandoned: Aristotle, but also Plato; Aquinas and Albert, but also Scotus, Averroes, and Occam; Scaliger, finally, as a representative of humanism (52/206). In setting these demands on his followers, Descartes is following the logic of an intellectual culture which rewards such abuses: 'Ad principatum in republ[icam] literaria obtinendum compendiosissimum subsidium authoritas confert' ('Le moyen le plus court pour obtenir la souveraineté dans la République des Lettres est l'authorité', 31/196).

Schoock does not think this is a novel set of demands to impose on one's followers. Instead, they simply reproduce those at play within religious enthusiasm: 'Sed noster per omnia similis est En-

thusiastis' ('Mais notre ami est en tous points le pareil des Enthousiastes', 30/195). Schoock wants to present this, on the one hand, as something wearily familiar to Northern European readers in the early seventeenth century, and particularly to city authorities concerned about civic unrest: he compares Cartesianism, in the passage just quoted, to David Joris's Anabaptism and to Valentin Weigel's Lutheran mysticism.[83] ('Fatale seculi hujus sidus virum bonum quoque afflavit', 'Le souffle fatal du siècle a touché notre homme comme tant d'autres', 31/195.) Confessional differences between the Catholic Descartes and these Protestant enthusiasts are irrelevant to Schoock, who is picking the cases which would strike his audience closest to home; this parochialism reminds us how tightly bound the *Admiranda methodus* is to the local context of the Utrecht Quarrel. On the other, he wants to set Descartes' error within a far longer history of similar movements. The comparison with the Pythagorean cult is particularly prominent here: Schoock labels Descartes a 'novus Pythagoras' (16), and repeatedly draws analogies between Descartes' use of mathematics and Greek number mysticism.[84]

Schoock was not the only one to draw the comparison between Cartesianism and enthusiasm. The general idea of a connection between new intellectual trends and cultishness were already established: earlier in the century, Garasse had characterised Théophile and his other targets as the leaders of a 'pernicieuse Cabale'.[85] As the uptake of Cartesianism gained speed in the second half of the seventeenth century, its opponents spoke about 'Cartesiomania'.[86] Gabriel Daniel makes it clear that, even in the 1690s, people were still 'traitant [Descartes] éternellement de visionaire, d'extravagant, & même quelquefois d'Hérétique & d'Athée'.[87] As we saw at the close of the last chapter, such terms of criticism were used to attack Cartesians like Malebranche. The Swiss-born English theologian Meric Casaubon provided the clearest parallel to Schoock's attack.[88] Writing a decade later, he drew parallels between Cartesianism and mysticism, and presented this as a threat to public order:

> [Descartes'] abilities I question not: his *Method*, having so much affinitie with this *Mysticall Theologie*, against which I think too much cannot be said, I could not passe it without some censure. I am one, I confesse, that think reason should be highly valued by all creatures, that are naturally rationall. […] I doubt, whether by this there would have been one sober

[83]For Joris, see Waite 1990, and for Weigel see Bosch 2000 and Weeks 2000.
[84]For instance, at 128-9/243-4. For more on this comparison, which Voetius often uses, see Heyd 1995, 112.
[85]Garasse 1623, 'L'Autheur au lecteur'.
[86]The term was coined in Revius 1654. See Des Chene 1995.
[87]Daniel 1690, 206. 'Visionaire' is rendered as 'Enthusiast' in the contemporary English translation of Gabriel's book, and as 'fanaticus' in the Latin. See Heyd 1995, 116.
[88]For Casaubon's anti-enthusiasm in general see Heyd 1995, 72-92. For his criticism of Descartes see Heyd 1995, Chapter 4, and Grafton 2000, 13-14.

> man left in all *Spain*, had not the *Alumbrados* […] been suppressed in time. (Casaubon 1655, 130-1)

There is more of an anti-Catholic edge to Casaubon than we find in Schoock. While he condemns both Protestant and Catholic mysticism, most of the naturalising or anti-enthusiast sources he appeals to are Protestant, and he is particularly critical of Catholic authorities who endorse accounts of mysticism.[89] In the present passage, the analogy drawn between Descartes and the Alumbrados, a sixteenth-century Spanish mystical sect, is being used to tie Descartes to Jesuit mysticism in particular: Ignatius of Loyola had been suspected of sympathies for the sect early in his career, and the alleged link between the Jesuits and the Alumbrados was a longstanding feature of anti-Jesuit thought.[90] (Such accusations of enthusiasm were, indeed, one of the factors which drove Ignatius to write his autobiography.)[91] In Casaubon's case, this was not just conspiracy theorising; as we have seen, there were certainly lines of influence between Jesuit spiritual practice and Descartes' work.[92]

But this religious tradition was not the only one Casaubon situated Descartes' work within. He also connects Descartes to a current of writing on method by Llull, Ramus, Trithemius, and Comenius which promised new, ever faster ways of attaining knowledge.[93] The contrast, in Casaubon's case, was with the laborious and unapologetically erudite high humanism of his father, Isaac Casaubon.[94] Schoock, too, draws the analogy with Ramus, and views Descartes' search for method as a rejection of learning.[95] He differs from Casaubon, however, in viewing this rejection, not just as undesirable, but as deceptive: reformers claim to do without traditional authorities, but nonetheless rely on them. So Ramus's followers typically rely on Aristotle, either explicitly or implicitly:

> plerique qui eum æstimant aut Aristotelico-Ramei haberi velint, aut si ab uno Ramo nomen ferre pulchrum putent, ejus tamen egestati ex Periateticæ Philosophiæ cornucopiâ succurrant. (7)
>
> la plupart de ses adeptes souhaitent être dénommés 'aristotélo-ramistes' ou, s'il préfèrent se nommer d'après Ramus seul, portent secrètement secours à son indigence grâce à la corne d'abondance de la philosophie péripatéticienne. (183)

Descartes, too, appeals to authorities, in spite of his injunction to forget all past knowledge: Descartes

[89] Heyd 1995, 87-8.
[90] See Fernández 1983 and Longhurst 1957. We find a similar line of attack on Descartes in Casaubon (1665) 1999.
[91] McManamon 2013, 1-2.
[92] See Jones 2006, 56, and Chapter 3 above.
[93] Heyd 1995, 114.
[94] Heyd 1995, 123. For more on Meric Casaubon's defence of learning, see Spiller 1980 and Hunter 1982.
[95] See in particular his introduction, and especially 3-8/182-4.

is at pains to demonstrate his knowledge of 'dogmata Hippocratis, Galeni, Aristotelis, Platonis, Themistii, Aphrodisæi, Averrois, Avicennæ, Alberti, Thomæ, Scoti, Occami' (22/190), and there is a tacit reliance on past authors in the *Méditations* (31/195). The charge of hypocrisy is repeated throughout Part 1 of the *Admiranda methodus*: Schoock claims Descartes fails to meet each of his own criteria. One should pay little attention to books; but he often complains in the *Responses* that his own books have not been read seriously enough (29/194). Descartes' word trumps reason; but he claims to be interest only in the strongest rational arguments (33/197). The promises of the *Letter to Dinet* are undermined by the results contained in the *Essais* (45/203). He argues for the wholesale rejection of existing doctrines, but grows angry when people do the same to his own work (56/208).

Schoock presents the relationship between Descartes and Regius as symptomatic of Cartesianism's anti-rational and authoritarian nature. Descartes' support for Regius in the Utrecht Quarrel is not a principled defence of a fellow philosopher, but a *quid pro quo*: *'vir acerrimi* scilicet *ac perspicacissimi ingenii* condecoratur, quia obsequio reliquos magistri Renati sectatores serio superare laboravit ('il est honoré comme un esprit subtil et pénétrant, parce qu'il s'est efforcé de surpasser en obéissance les autres sectateurs de Maître René', 36/198). Regius's teaching, his performance in disputations, and his books show that he does not deserve this degree of support on his own merit. Schoock's main piece of evidence for this is a disputation which took place on December 22, 1641, presided by Stratenus, the other professor of medicine. The *Narratio* lists eighteen corollaries against Regius defended by a medical student during the disputation. These attack him on questions of anatomy and botany.[96] In the first case, they took up points Regius defends in his *Physiologia*.[97] In the latter case, they clearly responded to his botany teaching, although the written record of this is much less substantial.[98] Regius does not, in fact, come out of the disputation very badly: Corollary 9, for instance, was 'Naturalis circulatio sanguinis non datur' ('Il n'y a pas de circulation naturelle du sang'); Corollary 12 was 'Posse quempiam absque cibo & potu diu vivere, asserimus' ('Nous affirmons qu'on peut vivre longtemps sans boire ni manger'). But Corollaries 13 to 18 picked out a set of factual errors in botany on Regius's part, particularly arising from confusions between different species. The student ended the final corollary by echoing the Voetian charge that Regius's philosophy undermined good taxonomic practice. As Schoock fleshed out the accusation:

> Coroll[arium] XVIII. exprobravit, ex eorum infelicium Botanicorum numero est, qui secun-

[96]The text is given at *Narratio Historica* 1643, 24-5/95.
[97]Regius 1641b.
[98]Descartes and Schoock 1988, 466n47.

> dum novæ […] Philosophiæ Botanicæ scita existamant licere, *Plantarum nomina ignorantibus, aliena nomina ignotis plantis indere*. (37)
>
> Or, d'après le corollaire XVIII, il serait un de ces infortunés botanistes qui, en vertu des résultats de la nouvelle philosophie botanique […] croient qu'il est permis 'aux ignorants de donner à des plantes qu'ils ne connaissent pas les noms d'autres plantes'. (199, translation altered)

Schoock appears to have viewed these errors as a knockdown demonstration of Regius's incompetence. It is noteworthy, once again, how parochial his appeal is: his account of the disputation is garbled, and would have best been understood by readers who had attended it, or heard reports of it as part of the ongoing quarrel, and his attack on Regius is, in any case, based on unpublished material available only to those who had attended, or found secondhand reports of, Regius's classes.

It was such relationships of personal influence and interest, on Schoock's view, which bound together the following which Descartes had accumulated at Utrecht. The next two parts of the *Admiranda methodus* present Schoock's direct attack on Descartes' philosophy. In Part 4, he returns to his account of Descartes' followers and his relationship to them. I turn to this now.

4.2.2 Availability and the dangers of Cartesianism. In his preface to the *Admiranda methodus*, Schoock had described his own early response to Descartes' claim in the *Discours* that a full understanding of his work was available to only a few of his readers. We find similar responses occurring among a range of readers in connection with each of Descartes' major books. In his preface to the *Méditations*, as we have seen, Descartes had insisted that his readers 'seriò mecum meditari' ('meditate seriously with me'), and that only a few would be able to: 'quales non nisi admodum paucos reperiri satis scio' ('Such readers, as I well know, are few and far between', AT 7.9/CSM 2.8). When the authors of the appendix to the Sixth Objections attacked Descartes' account of innate ideas, they agreed that they knew basic mathematical truths 'ex ideis [suis]', but denied that basic propositions in metaphysics about the mind-body distinction or the existence of God could be known in the same way (AT 7.421/CSM 283). Descartes' claim, as they understood it from his preface, was that the equivalence between these two sorts of knowledge would only become apparent if they consented to follow him: 'Dices, te non posse nobis hanc veritatem in os, nisi meditemur tecum, ingerere' ('You will say that you cannot graft this truth into us unless we are prepared to meditate along with you'). They bristled at the implication that, if their meditation failed to produce conviction, it was because of their lack of ability:

> En septies legimus quæ scripsisti […]; necdum tamen persuademur. Neque tamen existimamus te potius dicturum mentes omnes nostras bruto fascino infectas, & Metaphysicis

> rebus, quibus a 30 annis assueti sumums, prorsus ineptas […] (AT 7.421)
>
> Well, we have read what you have written seven times […] but we are still not convinced. We do not believe you will allege that our minds are in the grip of a brutish stupor and are wholly unfitted for metaphysical subjects, when we have had thirty years practice in them! (CSM.283-4)

They read Descartes' requirement that readers meditate with him as a demand to put reason on hold: viewed in more neutral light, Descartes' arguments 'non [sunt] tanti ponderis […] ut mentes hominum doctorum […] sibi possint atque debeant subjicere' ('do not have the kind of weight or strength that could or should conquer the minds of learned men', 421/284). The implication, which Schoock makes so explicit, is that Descartes' arguments are designed instead to conquer the minds of those who are weaker, or less experienced in philosophy, than him. As with Schoock, the Sixth Objections account of Descartes' strategy of persuasion is being offered in a polemical context. But it is possible to find more measured texts which record the same experience of being seduced by, and then turning away from, Descartes. In an appendix to a letter to Bayle written in February 1693, Christiaan Huygens gave an autobiographical account which echoes Schoock's narrative in the preface to the *Admiranda methodus*:

> Mr. des Cartes avoit trouvé la manière de faire prendre ses conjectures et fixions pour des veritez. Et il arrivoit a ceux qui lisoient ses Principes de Philosophie quelque chose de semblable qu'a ceux qui lisent des Romans qui placent et font la mesme impression que des histoires veritables. […] Il me sembloit lorsque je lus ce livre des Principes la premiere fois que tout alloit le mieux du monde, et je croiois, quand j'y trouvois quelque difficultè, que c'etoit ma faute de ne pas bien comprendre sa pensée. Je n'avois que 15 à 16 ans. Mais y ayant du depuis découvert de temps en temps des choses visiblement fausses, […] et à l'heure qu'il est je ne trouve presque rien que je puisse approuver comme vray dans toute la physique ni metaphysique, ni météores. (Christiaan Huygens 1888-1950, 10.403)

Huygens was born in April 1629, and his mid-teens coincided with the first publication of the *Principia*; he was 63 when he wrote this, perhaps reading his earlier experience through the lens of a now-established anti-Cartesian tropes. But he frames the charge in a way we have not yet seen. Descartes' success in seducing *improvida juventus* is, for Huygens, a result of the fabular character of his book. Huygens points to Descartes' account of *tourbillons* as a particularly successful instance of such writing.[99] That account is emphatically hypothetical.[100] Introducing it, Descartes not only refuses to assert

[99] 3.65 onwards, AT 8.1.116/9.2.136.

[100] Popkin 2003, 200, is dismissive of Descartes' hypothetical framing of his work, but does not explain why Descartes makes such extended use of it: see Roux 1998, 216, and for the language of hypotheses in the *Principia* see 215-29.

the truth of what he has written, but rejects parts of it as false. The French translation put it more emphatically than the Latin: 'tant s'en faut *que je vueille qu'on croye toutes les choses que j'écriray, que mesme je pretens en proposer icy quelques unes que je croy absolument estre fausses*'.[101] He reiterated the point at the close of the *Principia*: he is willing to claim that his explanations 'talia [sunt], ut omnibus naturæ phænomenis accuratè respondeant' ('sont *telles que tous les effets qu'elles peuvent produire se trouvent* semblables à ceux que nous voyons dans le monde'), but will not make the stronger claim that they are true.[102] Descartes presented this hypothetical framing for his texts as a matter of philosophical freedom: it permitted him to freely construct explanations which seemed to fit the observed phenomena well, without requiring any potentially controversial commitments to the facts of the matter. For Huygens, by contrast, the strongest consequence of this hypothetical framing was affective: it allowed Descartes to give his work the character of a novel, and so exercised a seduction on the young reader out of proportion to the value of his argument.

For Schoock, the authors of the Sixth Objections, and Huygens, Descartes' emphasis on the skill required to follow him is designed to seduce inexperienced readers, and to cover up the weakness of his arguments. Schoock describes this as a perversion of a widespread practice, within classical philosophy, of testing the skill of one's students before one starts teaching them:

> Quemadmodum antiquæ philosophiæ magistri, qui fumos juventuti vendere nolebant; ingenium ante explorare solent, quam aliquem in disciplinam recipere, ne forte oleum & operam perderet in addiscenda disciplina, ad quam perficiendam capax ingenium adferre non poterat: ita & *Renatus des Cartes*, vir antiquis scilicet moribus ut fide, in popello stropharum suarum ignaro candidus & à fallendi studio alienissimus videatur, revera autem omnia errata infelicibus discipulis hebetique eorum ingenio imputare possit […] (14-15)
>
> Dans l'Antiquité, les maîtres de philosophie, pour prouver qu'ils ne voulaient pas leurrer la jeunesse, avaient coutume, avant que d'admettre quiconque comme élève, de s'assurer de ses dispositions afin de ne pas gaspiller leur peine à lui enseigner une science pour laquelle il serait inapte. René Descartes aussi, de son côté, a adopté ces mœurs antiques afin que le menu peuple, ignorant ses ruses, le croie de bonne foi et aussi éloigné que possible de mauvaises intentions, mais qu'à rebours il puisse imputer toutes ses erreurs à ses infortunés disciples et à leurs entendements obtus. (187, translation altered)

Classical philosophers had two reasons for administering tests for studentship. The first was practical: to make sure that they were teaching at the right level. The second was a matter of public performance:

[101] 3.44-5, AT 8.1.99/9.2.123. The same point is repeated at 4.1, AT 8.1.203/9.2.201. For more on such disavowals in Descartes' work, and his characterisation of several of his texts as stories, see Chapter 2 above.

[102] 4.204, AT 8.1.327/9.2.322. For more on this passage, and Descartes' sympathetic comparison of Aristotle's views on hypothetical explanation with his own, see Cavaillé 1991, 262-3.

the practice of selection became a way of offering public reassurance that they had the interests of their students in mind. (We can see the practice at work in Aristotle: in the *Nicomachean Ethics*, for instance, where he says that the young are in general not fit to study political philosophy, or in the *Politics*, where he argues that not everyone should receive a theoretical education.)[103] Descartes' motivation, by contrast, is not to restrict access to his work. Rather, it is to disavow responsibility for any harm his work might do to its readers. This leaves us with at least two questions: We looked in detail in Chapter 2 at the way the harms of scepticism were conceived in the period; how does Schoock in particular conceive these harms? And does Descartes bring them about deliberately, or are they just collateral damage? Schoock sets out to answer these in Part 4 of the *Admiranda methodus*. This brief last part of the book is in four chapters. In the first, Schoock argues that Descartes' method 'ad Scepticismum viam sternit' ('ouvre le chémin au scepticisme', 245/307, translation altered). The second makes the same point about enthusiasm. The metaphor in the title, this time, is about following: 'Eadem Methodus recta ad Enthusiasmum ducit' ('Le même méthode mène directement à l'enthousiasme', 253/312, translation altered). The third makes the same point about atheism. Schoock uses a Cartesian building metaphor for the title: 'Atheismi muros dum subvertere Cartesius laborat, fulcit ac ædificat' ('Descartes, tout en s'efforçant de démolir les murs de l'Athéisme, ne fait néanmoins que les renforcer et les grandir', 261/315). The fourth claims that Cartesianism leads to lunacy (268/318). I go through these in turn.

Schoock does not call Descartes a sceptic. Rather, he calls him a 'Semi-Scepticus'. Semi-sceptics are

> eorum, qui vocari possunt Sceptici per consequentiam, quorum hic mos potissimum esse solet ; in speciem contra primæ notæ Scepticos [i.e. Pyrrhonic or Academic sceptics] denotare, certissimam evidentissimamque variarum rerum scientiam jactare, ac denique nova veri *κριτήρια* circumferre […] (246)
>
> ceux qu'on pourrait appeler des sceptiques par implication. Ceux-ci en effet sont avant tout accoutumés à fulminer particulièrement contre les sceptiques de la première espèce ; de se vanter contre eux [i.e. other sorts of sceptic] d'une science supérieure et très certaine, et enfin de faire étalage de nouveaux critères du vrai […] (308)

There are two parts to this portrait: semi-sceptics are defined firstly by their refusal of the classical styles of scepticism that had been recovered in the late Renaissance, and secondly by the weight they place on their newly formulated criteria for truth. It was commonplace to define full sceptics in terms of their rejection of criteria for knowledge or truth: Gassendi, for instance, spoke of 'Scepticos (quo nomine omneis Criteria tollenteis complector)' ('Sceptics (under which term I gather all those who

[103] *Nicomachean Ethics* 1095a and *Politics* 1333a. For more on these passages see, respectively, Burnyeat 1980a and Stalley 2009, 573.

deny [the existence of] criteria)').[104] Semi-sceptics, by contrast, are defined by their support for pathological examples of such criteria. Schoock has Descartes' doctrine of clear and distinct perception in mind. Why do these criteria generate a sort of scepticism? Because they are too stringent: 'Quid enim adea evidenter ut verum cognoscitur, corca quod aliquando animus no posset fluctuare, aut saltem dubitandi occasionem offendere?' ('En effet qu'est-ce qui peut être si clairement connu comme vrai que l'âme ne pourrait plus avoir aucune hésitation, ni ne plus rencontrer aucune occasion de douter ?', 248/308). Anything can be thrown into doubt, at least briefly. Schoock considers two sorts of cases. Even evident truths about the natural world can be challenged either by 'experimenta […] (quod facile fieri potest) ab aliquo libro naturæ vacante depromantur' ('expériences […] arrachées (et rien n'est plus facile que cela) par quelqu'un du libre de la nature qui est ouvert à tous'), or by the arguments of someone 'in philosophicis sacris exercitatissimo' ('qui connaît tous les secrets de la philosophie', 248/308). These *expériences* and experts need not be right. Schoock's point is that there is no statement in the sciences which is not vulnerable to the seductions of 'delirum aliquod caput, Cartesio forte non dissimile' ('une tête délirante, pas trop différente de Descartes'):

> Immota sciendi principia […] tamen variarum objectionum fuligine ac nebulis ita obscurari, ut doctissimi etiam […] circa illa turbentur […] sed animo fluctuent. (249-50)
>
> C'est que les principes immuables de la science […] peuvent […] sous l'action de la suie et des brouillards que produisent les diverses objections, être tellement obscurcis que même les plus savants […] ne peuvent s'empêcher […] de voir leur esprit vaciller dangereusement. (309)

The only science whose principles could meet Descartes' criteria would be one which was entirely safe from a phenomenon like Cartesianism; such a science, for Schoock, is a chimera. Not even divine truths are isolated from such doubt (this is Schoock's second sort of case): that is precisely the point of the Biblical stories of Job, Asaph, and Jeremiah, all of whom doubted the existence of divine providence (249/309).

Descartes' exposure of his students to powerful sceptical arguments is supposed to be justified by analogy between doubt and illness. Schoock quotes the *Letter to Dinet*:

> [N]ullas dubitandi rationes usisse à me propositas, eo fine ut ipsas persuaderem, sed contrà ut refutarem: eodem plane modo, quo Medecinæ scriptores morbos describunt, quorum curandorum Methodum volunt docere. (251-2, quoting AT 7.573-4; 'Medicinæ […] docere' is in turn a quotation from the Third Responses, AT 7.172)

[104] Gassendi 1658, *Syntagma philosophicum*, 1.79.

> [J]e n'ai avancé aucune de ces raisons de douter dans le but qu'on en fût persuadé, mais au contraire afin de les réfuter. C'est donc exactement la façon dont procèdent 'les auteurs de médicine (qui) décrivent les maladies dont ils veulent apprendre la cure'. (310, quoting 137)

Descartes' point is that examining reasons for doubt is like examining the causes of an illness one wishes to cure: such examination is necessary, in both cases, to understand the disease, and done properly it brings no risk of infection. Schoock has little patience for the justificatory metaphors connecting scepticism with medicine. Descartes misrepresents the risk such arguments pose to his readers; as we saw in Chapter 2, Schoock says the better Cartesian metaphor would be that of the path:

> Per lutosam & paludosam viam is agmen meare debeat, non tantum multi ex militibus calceis mulctantur, sed varii quoque ad talos usque cæno immersi, hostibus præda fiunt. (252)
>
> Si le train d'une armée doit passer par le marais et prendre des voies bourbeuses, il est inévitable que de nombreux soldats perdront leurs chaussures, et que d'autres s'embourberont pour devenir le proie des ennemis. (310)

Like Bourdin, Schoock is appropriating the metaphor of the follower for polemical ends. In spite of Descartes' public gesture of selecting his students, he has made doubt too easily available to those who cannot handle it safely. Schoock presents this as a reasonable constraint on *libertas philosophandi*:

> Quanquam enim libenter damus philosopho licere aliquando ex falsis hypothesibus in beritatis gratiam, quam unam intendit, progredi, nullam interim aut injuriam Deo facia, aut quo præjudicio ea, quæ indubitatæ veritatis sunt, gravare laborat. (251)
>
> Nous concédons volontiers au philosophe le droit de prendre comme point de départ de fausses hypothèses afin d'arriver par ce biais à la vérité qui est le seul but qu'il poursuit, à condition cependant de ne faire aucune injure à Dieu ou, autrement dit, sous réserve que quelque préjugé ne le conduise à bousculer ce qui est d'une vérité indubitable. (309)

The practice of assuming the negative in proofs had long been an object of suspicion for anti-sceptical writers. In *Les Deux véritez*, Jean de Silhon had argued 'qu'on ne peut tenir la negative sans evidence, & sans raisons qui la demonstrent, que sans ceste evidence, ceux qui la maintiennent se rendent criminels de leze Majeste Divine au premier chef, si tant est qu'il y ait Dieu'.[105] But whereas Silhon's point is about the sceptic's good standing with God, Schoock's point is emphatically about the danger the sceptic exposes his audience to.

[105]Silhon 1626, 13-14.

Chapter 2 of the *Admiranda methodus* returns to the question of enthusiasm. In Part 1, Schoock had tried to establish a close analogy between the constitution of Cartesianism and that of a religious movement. In Part 4, he is looking to establish something stronger: a causal link between Cartesianism and heresy. Once again, Schoock is emphatic that Descartes himself is not an enthusiast: 'Nihil homini affingere cupio' ('Je ne veux rien attribuer à l'homme', 253/312, translation altered). Cartesianism dismantles external checks on subjective error. But these checks do not just guard against scientific error; the same structures guard against religious error. The regulating authorities of Schoock's Christian Aristotelianism come in a block and, when attacked by a philosopher, their ability to suppress religious error diminishes:

> Quando primo enim à sensibus abducitur ad contemplationem eorum axiomatum, quæ ei insculpta videntur, exuitur amussi ac norma sua, sibique relicta facile axioma quod fingere potest, quod si normæ exhibeatur, postea falsum ac sublestæ fidei deprehendatur […] Quam facile vero erroneum quod axioma, inimicum pietati, adversarium scripturæ, menti sibi relictæ & judice suo carneti obrepere potest? (256-7)
>
> Dès qu'il [i.e. the understanding] se détourne de ses sens pour contempler les axiomes qui lui semblent être gravés en lui-même, il renonce à sa règle et à sa norme ; abandonné à lui-même, il s'imagine aisément en effet l'un ou l'autre axiome qu'une fois mis à l'épreuve, il reconnaîtra plus tard comme faux et peu sûr. […] Avec quelle facilité tel axiome erroné, ennemi de la foi et contraire à l'Ecriture, n'arrive-t-il pas à s'insinuer dans un esprit abandonné à lui-même et privé de l'assistance de son juge ? (313)

Schoock is motivated here, in part, by a general distrust of theoreticians, particularly those seeking greater abstraction: 'diabolus […] abstractivis magistris & superbis meditantibus quam vicinus esse solet' ('le diable se trouve toujours à côté des maîtres de l'abstraction et des théoriciens orgueilleux', 258/313, translation altered). But he thinks Cartesianism is particularly vulnerable to heresy because of the distinctive role the innate idea of God plays in Descartes' metaphysics. Earlier in the *Admiranda methodus*, Schoock had dismissed Descartes' desire 'cum Theologia […] nullum omnino commercium colere' ('éviter d'avoir l'air de frayer avec la théologie', 173/268). Schoock imagines an instance of a heretical argument a Cartesian might entertain:

> Deus in me est, & ego in Deo, ergo per Deum inexistentem omnia ago & consequenter neque pecco neque peccare possum, quia per Deum inexistentem omnia ago […] (259)
>
> Dieu est en moi, et moi, je suis en Dieu ; par conséquent c'est par Dieu qui existe en moi que je fais tout ce que je fais, de sorte que ne je commets ni ne puis commettre aucun péché, tout ce que je fais étant fait par Dieu existant en moi. (314)

Schoock's point is not that this is a coherent argument, or that it follows in any sensible way from Descartes' thought. It is a portrait of the sort of argument *improvida juventus* might give if stripped of all external checks on their reasoning; his point is that it is plausible to expect to see such arguments arising in the wake of the new philosophy. Again, Schoock is formulating his anti-Cartesianism using well-established Calvinist attacks on enthusiasm: Calvin himself had attacked those who 'disent que c'est Dieu qui vit en nous, qui donne vigueur à noz corps ; qui nous soustient & faict en nous toutes les actions appartenantes à la vie'.[106] Schoock quotes a late sixteenth-century report that Hendrik Niclaes, founder of the Familia Caritatis, had openly declared that 'Ego sum Deus'.[107]

So far, Schoock's argument has not required him to make any claim about Descartes' intentions: in Chapter 1, scepticism is presented as an unintentional, though predictable, consequence of setting one's criteria for truth too stringently; in Chapter 2, enthusiasm is presented as an unintentional, though predictable, consequence of eroding external checks on argument. Chapter 3 takes up the question of Descartes' relationship with atheism. This is where Schoock comes closest to ascribing malice, rather than neglect, to Descartes.

How plausibly can Descartes deny responsibility for the harms he causes his readers? Of the triptych of errors Schoock considers, Descartes is most vocal in his opposition to atheism:

> Etenim si verba semper virtutem arguerent, iisque tuto fides adhiberi deberet, ab Atheismi levissima etiam suspicione homo noster alienissimus asset […] Quid volunt enim sequentia verba […]: *Addam* (rationes meas) *tales esse, ut non putem ullam viam humano ingenio patere, per quam melires inveniri unquam possint* […] (261-2, quoting AT 7.4/9.1.6)
>
> A le croire, en effet, lui qui parle toujours vertu, personne ne pourrait être plus libre même du plus léger soupçon d'athéisme […] Car que signifient ces paroles […] : 'Et je dirais de plus qu'elles (c'est-à-dire ses démonstrations) sont telles que je ne pense qu'il y ait aucune voie par où l'esprit humain en puisse jamais découvrir de meilleures […]' (315-16)

Schoock is quoting from the *Epistola sacræ facultatis theologiæ parisiensis decano & doctoribus* which prefaced the first three editions of the *Méditations*. The last third of this text draws an analogy between Descartes' arguments and the geometrical proofs of Archimedes, Apollonius, and Pappo. His arguments, Descartes says, compare to theirs in terms of length, the dependencies which exist between their different parts, and demand a 'lector attentus' (rendered in French as 'un esprit tout entier'). Yet fewer readers are capable of understanding Descartes' arguments: 'Nec certe plures in mundo Metaphysicis studiis quàm Geometricis apti reperiuntur' ('Et en vérité, il ne s'en trouve pas tant dans le

[106] Calvin 1547, 61. See further Mothu 2009, especially paragraphs 105-12.

[107] Coornhert 1581, 'Voorreden', A2^{v}; the original Dutch is 'Ic selue ben Godt'. For more on Niclaes, see Moss 1981, 7-22.

monde qui soient propres pour les Spéculations Metaphysiques, que pour celles de Géométrie'). This is for two reasons: because his reasoning makes greater demands on the reader, requiring 'mentem a præjudiciis plane liberam' ('un esprit entierement libre de tous préjugez'), and because the culture is generally unwilling to consider philosophy as capable of proofs as certain as those in mathematics.

For Schoock, Descartes' insistence on the unavailability of his arguments to the majority of his readers stands in conflict with his claim to offer the strongest possible arguments against atheism and heresy. Heretical belief and atheism are not being thought of here as mutually exclusive positions: the early modern atheist was defined not so much be unbelief as by their (at least partial) sympathy to a complex of positions which deemphasised God's role in creation, viewed matter as existing eternally, and sought naturalistic explanations for Biblical miracles.[108] Arguments like those Descartes claims to offer ought to be conceived of as *machinæ*, war engines, in the battle against unbelief. (These are machines, among other things, for tearing down walls: Schoock is staying close to the building metaphor he used in the title of the chapter.) We have already seen that this metaphor of arguments as 'machines de guerre' against heresy was widespread, and that, as long as they were strong enough and were used properly, even sceptical arguments could serve this purpose: Hervet, an early editor of Sextus, said that *Against the Mathematicians* offered 'copiam argumentorum adversus nostri temporis hæreticos'.[109] The strongest such machines must be able to conclusively defeat any atheist; they ought to do so, moreover, in such a way that the atheist is compelled to admit defeat, and that any onlookers recognise and understand the arguments. Arguments which are incomprehensible to the majority of those who encounter them simply cannot play this role:

> Etenim, quisquis animis Atheorum machinas admovere cupit, talibus, quibus everti possint, uti debet. Quemadmodum enim in castris nulli alii arietes probantur, quam quibus mœnia concui queunt: similiter contra Atheos nullæ aliæ rationes valent, quam quibus vinci ac converti possunt. (264-5)
>
> Si, dans le but d'ébranler les cœurs des athées, on dispose ses machines de guerre, il faut les choisir telles qu'elles puissent les abattre. Car tout comme dans l'armée on n'use pas d'autre béliers que ceux qui peuvent renverser les murs, de même, contre les athées, seuls on de la valeur les argument qui peuvent les convaincre et les convertir. (316-17)

Schoock's point is not just that Descartes' arguments cannot play the role he claims for them. Supposedly, Descartes has also succeeded, among his followers, in discrediting any competing proofs

[108] Phillips 1997, 240-1. For an overview of the historiography of atheism in the early modern period see Wootton 1992. For atheism in France in the seventeenth century see in particular Kors 1990, 2016a, and 2016.

[109] Sextus 1569, Dedicatory Letter, ã2^{r}-ã2^{v}. See further Chapter 2 above.

for God's existence. By dismantling the existing scholastic defences against atheism, and then failing to provide a comprehensible alternative, Descartes has failed to offer his followers any reason for believing God exists. This is indistinguishable in practice from atheism:

> Ut enim suspecta redditur veritas, quando ostenditur nullis eam rationibus niti; ita & Atheismus docetur, quando argumentis, quibus solis, aliis repudiatis, nitendum esse jactatur, omis efficacia ac successus eripiuntur. (265)
>
> Tout de même qu'on rend suspecte une vérité en montrant qu'elle manque de fondement, de même on enseigne l'athéisme lorsque, après avoir répudié les autres, on dérobe toute efficacité et tout succès aux seuls arguments qui restent encore contre l'athéisme. (317)

Schoock's argument here is independent of any direct criticism of Descartes' philosophy. His attack stands or falls without reference to the correctness of Descartes' arguments; it relies solely on their difficulty for ordinary readers. Earlier in Part 2, Schoock had criticised the ready availability of powerful sceptical arguments within Descartes' work. He is now attacking the contrasting unavailability of Descartes' solutions to these sceptical problems. His central critical point in Part 2 is about the asymmetry between these two sets of resources.

Schoock has said that Descartes teaches atheism. There exists a prominent contemporary model for the sort of tacit promotion of atheism he is accusing Descartes of: this is Lucilio Vanini. Schoock sees four points of close analogy: Vanini, like Descartes, explicitly opposed atheism; he too claimed to offer arguments 'contra quas nullum pertinaciæ scutum, aut clypeus consistere posset' ('qu'aucun épi ni bouclier ne peut résister'); he too spent much of his intellectual energy dismantling existing arguments against atheism; and his own positive arguments were also ultimately 'elumbia & siculnea' ('chétifs et timorés', 213/316), enough so that they left readers with no viable arguments for God's existence.

Vanini had been executed in 1619 on charges of atheism and blasphemy, leaving behind two radically rationalist works, *Amphitheatrum* and *De admirandis naturæ reginæ*, which systematically attacked medieval and Renaissance theology.[110] In 1623, Mersenne's *Quæstiones celeberrimæ Genesim* presented the case of Vanini as a key instance of modern atheism; later the same year, Garasse's *Doctrine curieuse* adopted and popularised Mersenne's account.[111] The last years of Vanini's life, typically filtered

[110] Vanini 1615 and 1616. For a translation and critical edition, see Vanini 2010. The major primary sources related to his trial are collected in Leopizzi 2004. There has been a good deal of recent secondary work on Vanini. For recent general studies see especially D. Foucault 2003 and 2005, as well as the essays collected in Raimondi 2000a and 2003. For the charge that Vanini was a hidden atheist, see Cavaillé 2002, Chapter 1, Horsley 2015, Raimondi 2000b, and more generally Snyder 2009.

[111] Mersenne 1623 and Garasse 1623. For more on Mersenne and Vanini see Hine 1976 and Raimondi 1995.

through Mersenne's reading, became a topic for contemporary historians of France like Gabriel Barthélemy de Gramond, whose *Historiarum Galliæ ab excessu Henrici IV* contained an account of the trial.[112] Most references to Vanini were not this detailed, though: he became simply a stock example of an atheist, serving in this role well into the eighteenth century, where he is referenced, for instance, by Berkeley in his *Three Dialogues*.[113] As a point of reference, Vanini belongs to the north: Dutch, English, French, German authors make use of him frequently, while it is substantially less common to find his name mentioned in Italian texts. This was partly because the final years of his life played out in England and France; his books were published in Lyons and Paris, and the major early accounts of his death were by French authors. But it was also because Vanini became a representative of the naturalising, atheistic Italian humanist tradition which was supposedly flourishing in Italy.[114] So we find Jean de Silhon writing, forty years after Vanini's death:

> Enfin l'Italie a porté quelques esprits broüillons & vains, qui a quelque prix que ce fust ont voulu faire du bruit dans le monde […] & qui pour rendre leur audace plus illustre n'ont épargné ny la Religion, ny l'Immortalité de l'Ame, ny les autres creances qui sont les plus saintes & les plus inviolables parmy les hommes. Tels ont esté Cardan & Lucilio Vanini […] (Silhon 1662, 33)

The comparison with Cardano, as well as Pomponazzi, remained popular throughout the seventeenth century. Garasse, who called Vanini a 'pauvre papillon ; lequel du fonds de l'Italie s'est venu brusler au feu de Languedoc', grouped him with Cardano, Pomponazzi, Agrippa, and Paracelsus.[115] In 1678, Samuel Parker was still using the Vanini-Cardano pairing to conjure up the spectre of Italian atheism.[116] But these are all comparisons to figures who were by then long dead. It is exceptionally rare to find writers comparing their contemporaries (alive or dead) to Vanini, particularly in the first half of the century, when the stakes were high: Garasse's campaign against Théophile, which had used the comparison, had been fatal for the poet.[117] The practice became more common in the late seventeenth and early eighteenth centuries, where we find comparisons with supposedly atheist philosophers like Hobbes and Spinoza. Even here, though, it is unusual to find comparisons which are as extended as Schoock's. Berkeley's *Three Dialogues* shows how superficial such references typically were:

[112]Gramond 1643, 208-10.
[113]Berkeley 1713, 76.
[114]We encountered this tradition in Chapter 1 above.
[115]Garasse 1623, 43 and 849.
[116]Parker 1678, 194.
[117]For more on Théophile's condemnation see Viau 1999, 1.vii-xxxiii, and for the texts produced in this period see 2.xv-xxix.

> Those miserable Refuges, whether in an eternal Succession of unthinking Causes and Effects, or in a fortuitous Concourse of Atoms; those wild Imaginations of *Vanini*, *Hobbes*, and *Spinosa*; in a word, the whole System of Atheism, is it not intirely overthrown, by this single Reflexion on the Repugnancy included in supposing the Whole, or any Part, even the most rude and shapeless of the visible World, to exist without a Mind? (Berkeley 1713, 76)

Descartes was sometimes added to this mix. The German statesman Veit Ludwig von Seckendorff, for instance, grouped Descartes, Hobbes, and Vanini together in passing in his 1685 *Christen-Stat*.[118] Nor was it just those hostile to these authors who made such comparisons. The *Traité des trois imposteurs*, which dates from the same period as Berkeley's *Dialogues*, is a sustained attack on revealed religion using Hobbesian and Spinozist materials, and explicitly incorporates material from Vanini's *De arcanis*.[119] But, while the *Traité des trois imposteurs* remained notorious, the comparison with Vanini had lost some force by the late seventeenth century. His reputation had improved somewhat. Even the earliest accounts of his death had been inflected with a certain admiration for his devotion to philosophy. So the contemporary account in the *Mercure françois* described him going to die in good spirits: 'Sortant de la Conciergerie comme joyeux & allegre, il prononça ces mots en Italien ; allons, allons allaigrement mourir en Philosophe'.[120] This admiration planted the seeds for a later rehabilitation. Bayle used Vanini as an example of virtue among atheists, and consequently against the argument that atheism entails immorality: '[…] il n'est pas plus étrange qu'un Athée vive vertueusement, qu'il est étrange qu'un Chrêtien se porte à toute sorte de crimes'.[121] La Mettrie offered a similar defence in the next century.[122] A systematic, book-length defence even appeared, Peter Friedrich Arpe's *Apologia pro Vanino*.[123] But Schoock was far closer to Garasse than to Bayle, in terms of both chronology and temperament: his extended analogy between Descartes and Vanini was rhetorically extreme and potentially dangerous.

Schoock closes with a brief chapter on madness. As Descartes acknowledges in the *Letter to Voetius*, there had been rumours circulating in the city that Regius's students had gone mad after leaving Utrecht.[124] While Schoock does not mention them, Descartes seems to have thought, plausibly, that

[118]Seckendorff 1693, 28 (in 'Additiones', new pagination). See also Malcolm 2002, 481, and his Chapter 14 more generally for comparisons between Hobbes and Vanini.
[119]Berti 1996, 221-7.
[120]Quoted in Horsley 2015, 100; the same account is given almost verbatim in Anonymous 1619.
[121]Bayle 1683, 532.
[122]La Mettrie 1753, 1.35.
[123]Arpe 1712. See Mulsow 1996, 230-2. For more on Vanini's reception in the early eighteenth century, see Berti 1996.
[124]AT 8.2.183, Descartes and Schoock 1988 394.

he wrote this chapter to sway an audience that had already heard such rumours, and was willing to give them credit. Schoock's final attacks turn on the same sort of confusions about naming which he mocked Regius for in Part 1, and in this context he is willing to grant Descartes the image of a doctor he had used to describe himself in the Third Responses and the *Letter to Dinet*. But the appropriate comparison is with Menecrates of Syracuse, a doctor whose conceit led him to mistake himself for Jupiter:

> Menecrati haut sine ratione Renatum Cartesium compares, sive ejus fastum & jectantiam, superius aliquoties à nobis prodita, sive importunitatem in omnibus cujuscunque notæ viris doctis irritandis consideres. (268)
>
> On comparera avec bonheur Descartes et Ménécrate, tantôt pour son arrogance et sa vantardise, exposées par nous plus d'une fois dans les pages qui précèdent, tantôt pour son effronterie à irriter partout les savants de quelque réputation. (318)

The story of Menecrates' conceit is common among classical authors; Schoock is using Plutarch's version from the 'life of Agesilaus'.[125] The second point in the passage just quoted misfires: as Plutarch's own account makes clear, Menecrates was widely respected for his skill, and later medical writers consistently show respect for his views.[126] Schoock offers three arguments for the connection between Descartes' method and madness. Firstly, the *lector attentus* Descartes demands is not just attentive, but fixated, and fixation is the primary cause of madness. (Schoock has a parenthesis: '(si libeat vel phreneticorum carceres invisere)' ('(il n'est qu'à visiter les lieux où l'on enferme les frénétiques'), 270/319).) Secondly, someone who 'abstrahi mentem à sensibus vult' ('veut abstraire l'esprit des sens', 271/319, translation altered) will ultimately do the same thing to the images of things contained in the imagination. Such images regulate the concepts we apply to things in the world: without them, we become like '[quidam], qui Phreneticorum aulam exornant, stramen putare esse aurum' or 'metallorum pretiosissimo' ('les gens, ornements des asiles de fous, qui tiennent de la paille pour de l'or' or 'le plus précieux métal', 272/320, translation altered). Thirdly, abstraction from the faculties of sense and imagination leads eventually to a neglect of the memory. This plays a similar regulatory function to the imagination: without it, 'luteam domum palatium, festucam trabem, pulverem aurum, &c. vocare poterit' ('il pourra appeler une chaumière un palais, une paille une poutre, de la poussière de l'or, etc.', 272/320, translation altered). Once again, Schoock may be echoing the *Discours*, for this can serve as a reference to Descartes' own concerns (however genuine) about the soundness of his moral and scientific

[125] In *Parallel Lives*. For other references see Plutarch's *Apophthegmata regum et imperatorum*, 5, and *Apophthegmata Laconica*, 59, as well as Aelian, *Varia historia*, Book 21, and Athenaeus, *Deipnosophistæ*, Book 7.

[126] Brill's New Pauly, 'Menecrates', 3.

achievements: 'Toutefois il se peut faire que je me trompe, & ce n'est peutestre qu'un peu de cuivre & de verre que je prens pour de l'or & des diamans' (AT 6.3).[127] Schoock is trying to recast Descartes' statement as a confession of the dangers his work entails.

Descartes, in turn, took up the terms of criticism used by the *Admiranda methodus* when he responded to it in the *Letter to Voetius*. Assuming that the book had been written by Voetius, he accused his opponent of abusing his religious authority to stir up the passions of his followers:

> [H]inc denique concionator, qui auditores suos ad iram & odium in alios homines excitat […] quamvis nihil egregii dicat, nihil boni, ac sæpe etiam statum controversiæ, de quâ disputat, nulli intelligant […] majore cum studio à devotâ plebe auditur […] quàm alii multò eloquentiores, sed qui eam non tam ad aliena vitia odio habenda, quàm ad propria emendanda adhortantur. (AT 8.2.48)
>
> Lorsqu'un prédicateur excite ses auditeurs à la colère et à la haine contre d'autres hommes […] il a beau ne rien dire de remarquable, ne rien dire de bon, et souvent même son auditoire ne rien comprendre à la question […] il sera mieux écouté par la multitude dévote […] que d'autres beaucoup plus éloquents, mais qui, au lieu d'appeler sa haine sur les vices d'autrui, l'exhorteraient à se corriger des siens. (Descartes and Schoock 1988, 354)

As we have already seen, Descartes claimed that Voetius's abuses as a preacher went hand in hand with his failures as an educator.[128] The *Admiranda methodus* was a paradigm of just the sort of text designed to suppress the development of independent reason in the young. Descartes deploys Schoock's image of the careless doctor against him: in his reliance on authorities and lists of names, and in the poverty of his argument, he is

> ut mali Medici, qui, vera & simplicia remedia ignorantes, magnâ pharmacorum vel intuilium vel noxiorum multitudine solent ægros suos fatigare […] (AT 8.2.54)
>
> [comme] les mauvais médecins qui, dans leur ignorance des remèdes les plus simples et les meilleurs, accablent leurs malades sous une multitude de médicaments inutiles ou dangereux […] (Descartes and Schoock 1988, 358)

And yet, as we saw in Chapter 1, Regius — whose relationship to Descartes was one of the key targets of the *Admiranda methodus* — was sympathetic to Schoock's attack on Descartes and his teaching style. Responding to the demand that he omit several theses from the *Fundamenta Physices*, Regius reminded Descartes that many in Utrecht saw the promises of the *Discours* and the *Méditations* as better suited to a religious leader than a philosopher: 'Il est inutile de leur alléguer que vos raisonnements se

[127] For more on this passage see Chapter 2 above.
[128] See Chapter 3 above.

trouvent enfin tels que vous les avez promis. Car ils vous répliquent qu'il n'y a point d'enthousiaste, point d'impie, point de bouffon qui ne pût dire la même chose de ses extravagances et de ses folies'.[129] This letter, the last Regius wrote to Descartes, challenged his master to refute the charges of authoritarianism that had taken shape in the course of the Utrecht Quarrel. Throughout his career, Descartes had tried to minimise the obligations generated by his texts; he had now to recognise that he could not impose such obligations at will on his students and readers. The subsequent history of the 'Explicatio mentis humanæ', the *Notæ*, the *Principia*, and the second edition of the *Fundamenta Physices* shows that, at least in the eyes of his former student, Descartes failed in this.

[129]Descartes 2002, 190, AT 4.255.

Conclusion

Descartes' negotiation of the responsibilities arising from teaching is persistent and prominent throughout the period from 1637 to 1648, and shapes the way in which major early responses to his work are formulated. His concerns spring particularly from the teaching of sceptical arguments, and from his efforts to maintain his project's integrity as his followers take it up. In Chapter 1, we saw how these concerns shape the *Principia*. Chapter 2 argued that Descartes' conception of his responsibilities are rooted in a widespread early modern conception of the risks of scepticism, and that they are visible, within the *Discours*, in his remarks about exemplarity and publication, as well as in the actual business of publishing the text. In Chapter 3, these concerns were linked to a positive conception of the gains Descartes hoped to secure for his students against pressures within Aristotelianism. Finally, in Chapter 4, we saw that Descartes' critics mobilise this understanding to frame early attacks on the interactions between Cartesianism and existing scholastic institutions. In closing, I suggest three directions in which to develop topics raised in the thesis. They are not about education to an equal degree; instead, they are linked by a shared concern with historiography, and with the dynamics underlying contested representations of Descartes. The first is about the prehistory of a supposedly Cartesian sceptical problem; the second is about Descartes' own ambiguities and their role in shaping responses to his work; and the third is about late seventeenth-century debates about his achievement.

1 Other minds and medieval scepticism. Recent work has shown that any history of scepticism which passes over the Middle Ages is incomplete.[1] This recovery of medieval scepticism is important in its own right; it is important, too, for understanding the prehistory of sceptical concerns which are thought, rightly or wrongly, to originate with Descartes. Much work has been done to identify late

[1] See Bolyard 2017, Lagerlund 2010, and Perler 2012.

antique and medieval precursors to Descartes' sceptical and anti-sceptical arguments.[2] But features of the historiography still need reassessing. One such feature is the history of the problem of other minds; I suggest that such a reassessment will involve tracing the history of an Augustinian problematic, connecting questions about other minds to questions about teaching, into the Middle Ages. Since at least the late eighteenth century, the problem has been thought to originate with Descartes; modern work largely reproduces this story.[3] The claim is twofold: that Descartes poses the problem of other minds himself in the *Discours* and the *Méditations*, at least in passing, and that he provides the inspiration and the necessary conceptual tools for later authors like Malebranche to raise it at length.[4] But it is not at clear that Descartes sees a distinctive problem about other minds in Meditation 2.[5] Malebranche, by contrast, certainly is worried by the problem. We can only infer, he claims, that others have minds:

> [I]l est manifeste que nous ne les connoissons [i.e. les ames des autres hommes et pures intelligences] que par conjecture. Nous ne les connoissons presentement ny en elles-mesmes, ny par leurs idées, & comme elles sont differentes de nous, il n'est pas possible que nous les connoissions par conscience. (Malebranche 1674-5, 1.381)

But are either the problem or the solution here primarily Cartesian? It may be more natural to see Malebranche taking up a set of Augustinian questions about other minds. These are part of a complex problematic in Augustine, where they typically occur alongside questions about the possibility and mechanisms of teaching.[6] How do we learn the meanings of words?[7] How, particularly as children, do we understand particular gestures or utterances to express particular intentions?[8] How are we justified in attributing intentions, or even minds, to others?[9] What role do these attributions play in our childhood and in our adult life, and what would these be like without them?[10] The problematic fractures after Augustine, but each of its component questions maintains a presence in medieval thought, sometimes as a direct result of his influence and sometimes as a matter of similar questions developing in parallel traditions. Questions about word acquisition are pursued within debates about Augustine's doctrine of illumination by Aquinas, Scotus, and Henry of Ghent.[11] Concerns with ostension and ambiguity are present in Arabic commentaries on Aristotle: in the *Book of Glimmerings*, for instance,

[2] See, for instance, Matthews 1992 on the *cogito* and Gregory 1992 on the evil genius argument.
[3] Reid 1785, 168. For a similar modern account, see Avramides 2001, 8.
[4] AT 6.55-6 and 7.32/9.1.25. For the first claim, see Avramides 2001, 50-1, and, for the second, 72-3.
[5] My thanks to Katherine Morris for this point.
[6] For the idea that this is a unified problematic see Engelland 2014, 101.
[7] *Confessions* 1.8.13.
[8] This is one of the questions in the ostension discussion in *De magistro*, 10.33-13.46. See Chapter 3 above.
[9] *De Trinitate*, 8.6.9.
[10] *Confessions* 1.8.13-1.9.14 and 6.5.7. See also Engelland 2014, 87-8.
[11] See the references in Chapter 3 above.

al-Ashᶜarī asks how we distinguish between voluntary and involuntary movement — between, for instance, a meaningful wave of the hand and a tremor brought on by illness.[12] In the thirteenth century, Peter John Olivi engaged directly with questions about our knowledge that others have minds:

> Et quia istud quodam miro modo sentimus aliis hominibus inesse sicut et nobis, idcirco invenimus nos potentes ut […] possimus aliis hominibus coniugi et non brutis seu irrationalibus. (Olivi 1922-6, q. 57, responsio)
>
> We sense in a certain wonderful way that this is in other human beings as in ourselves, and on that account we find ourselves to have an ability such that […] we can join ourselves to other human beings and not to animals or to things lacking reason. (Cross 2014, 146)

The claim that we are 'aliis hominibus coniugi' by this knowledge is a point about the role of this knowledge in our common life. That question is taken up at greater length, again, within the Ashᶜarite school: al-Bāqillānī, for instance, argues that the possibility of action relies on the recognition that others have mental lives similar to our own.[13] We need to understand how seriously late antique and medieval writers take such questions, and the connections they see between them, before we can judge whether the problem is primarily a seventeenth-century invention, and before we can understand Descartes' own role in it.

2 *Fables and hypotheses.* As we have seen, much critical work on Descartes in recent years has involved unpicking alleged misreadings which emerged almost as soon as his work appeared.[14] This leads to a further set of questions about *why* these misrepresentations arose.[15] In the *Letter to Voetius*, Descartes responded to the portrait given of him in the *Admiranda methodus* with a mixture of fury and bewilderment. Schoock had claimed Descartes required his readers to forget all opinions and experience.[16] But, Descartes replied, no sane person could have meant what Schoock says he meant:

> Longe enim aliud est præjudicia, sive opiniones temere ante receptas, deponere […] et aliud, eorum oblivisci, quod fere numquam est in nostra potestate. (AT 8.2.37)
>
> It is one thing to set aside preconceived opinions, that is, to cease to give one's assent to opinions that we rashly accepted on another occasion […] it is something else entirely to forget such opinions, which is virtually never in our power. (CSM 3.221)

[12] Kukkonen 2016, 46.
[13] Kukkonen 2016, 45.
[14] See the Introduction.
[15] For such questions see, for instance, Gilby 2011, 451, and Le Doeuff 1980, 124.
[16] Schoock 1643, Part 1, particularly 18 (Descartes and Schoock 1988, 189). See Chapter 4 above.

In Emma Gilby's paraphrase: 'What is it […] that Voetius thinks he is recommending? Some kind of enforced oblivion?'[17] Descartes goes on to theorise this lack of interpretive charity in the *Letter* and, more obliquely, in his account of generosity in the *Passions*.[18] But are there internal features of Descartes' work which put a strain on this charity? Does his writing invite misreading?

I suggest that Descartes' description of his work in terms of fables, stories, and hypotheses is one such feature. Such descriptions have been well studied.[19] They are bound together by at least three overlapping purposes they serve in Descartes' work. Firstly, they pick out stylistic features of the work. That allows Descartes to present himself as attentive to the reader's needs: as he wrote in *Le Monde*, 'afin que la longueur de ce discours vous soit moins ennuyeuse, j'en veux envelopper une partie dans l'invention d'une Fable […]' (AT 11.31). And, as we have seen, it lets him prescribe methods of reading for his work: 'J'aurois aussi adjousté un mot d'advis touchant la façon de lire ce livre, qui est que je voudrois qu'on le parcourust d'abord tout entier ainsi qu'un Roman […]' (AT 9.2.11-12). Secondly, such descriptions allow Descartes to disavow commitment for particular explanations: he himself does not accept, he claims, some of the cosmological explanations in the *Principia* (AT 8.1.99/9.2.123). And, thirdly, such descriptions express a probabilistic conception of the sort of natural-philosophical explanations Descartes can offer. At the end of the *Principia*, he explains that his explanation of a particular phenomenon will necessarily be hypothetical, because the principles he has established as metaphysically certain could match a range of explanations in addition to his own.[20] He will be happy if his hypotheses seem to match the facts:

> [N]on dubium est, quin summus rerum opifex omnia illa, quæ videmus, pluribus diversis modies potuerit efficere. Quod equidem verum esse libentissimè concedo, satisque à me præstitum esse putabo, si tantùm eu quæ scripsi talia sint, ut omnibus naturæ phænomenis accuratè respondeant. (AT 8.1.327)
>
> [I]l est certain que *Dieu* a une infinité de divers moyens, par chacun desquels *il peut avoir fait que* toutes les choses de ce monde *paroissent telles que maintenant elles paroissent, sans qu'il soit possible à l'esprit humain de connoistre lequel de tous ces moyens il a voulu employer à les faire*. Ce que je ne fais aucune difficulté d'accorder. Et je croiray avoir assez fait, si *les causes* que j'ay expliquées sont *telles que tous les effets qu'elles peuvent produire se trouvent* semblables à ceux que nous voyons dans le monde […] (AT 9.2.322-3)

Descartes draws a comparison here with Aristotle's method; doing so, he effectively gives probabilistic

[17] Gilby 2011, 456.
[18] Gilby 2011, 457. For *le droit de la charité*, see Carraud 1993, and for generosity see in particular Rodis-Lewis 1998.
[19] See in particular Cavaillé 1991.
[20] Roux 1998, 220.

scholastic explanation a permanent place in his system.[21] Descartes' language of fables and hypotheses is motivated by a set of defensive strategies, then: it gives him means of control over styles of readership and over his own commitments, and it allows him to accommodate his method and conclusions within a conventional Aristotelian approach. It is often ambiguous which strategies are at play in a particular moment of a text. Different strategies stand out for different readers; Descartes' language of fables and hypotheses provides crucial terms for criticism of his work by contemporary Aristotelians, by later seventeenth-century modernisers, and by *philosophes* in the next century. So Schoock wrote in the *Admiranda methodus*:

> Pari enim jure posteriorem hanc evidentiam quis simull assignare posset Æsopi fabulis, Hesiodi Theogeniæ, & Valentinianorum Æonibus. […] Quæ omnia ab otioso speculatore ficta fateor quidem per evidentiam narrationis proponi, sed ubi evidentia probationis aut certitudinis? (Schoock 1643, 73-4)
>
> Car, avec le même droit, on pourrait attribuer cette dernière évience aux *Fables* d'Esope, à la *Théogonie* d'Hésiode et aux *Eons* des valentiniens. […] Toutes ces choses imaginées par un penseur paresseux sont présentées, je l'accorde, avec l'évidence d'une histoire, mais où se trouve l'évidence d'une preuve certaine ? (Descartes and Schoock 1988, 217-18)

As we have already seen, Christiaan Huygens felt that the demands on his readers which Descartes made by describing his work as a *roman* disguised the weakness of his own thought.[22] Pascal, too, described Descartes' philosophy as 'le roman de la nature, semblable à peu près à l'histoire de Don Quichotte'.[23] In the eighteenth century, with Newton's work eclipsing Descartes' even in France, Voltaire described the narrative style of the *Principia* as a betrayal of Descartes' earlier work, a return to an outdated, Aristotelian style of systematic philosophy:

> La Géométrie étoit un guide que lui-même [i.e. Descartes] avoit en quelque façon formé, & qui l'auroit conduit surement dans sa Physique ; cependant il abandonna à la fin ce guide, & se livra à l'esprit de Systême. Alors sa Philosophie ne fut plus qu'un Roman ingénieux, & tout au plus vraisemblable pour les philosophes du même tems. (Voltaire 1734a, 114)

(In other early editions, the final sentence reads '[…] vraisemblable pour les ignorans'.)[24] In different ways, each of these readers detaches Descartes' language of fables and hypotheses from the full complex of strategies underlying it. In Schoock's view, such descriptions only confirm Descartes' break

[21] Roux 1998, 226-7.
[22] See Chapter 4 above.
[23] Pascal 1964-, Lafuma 1008.
[24] Voltaire 1734b, 128.

with Aristotelianism. Huygens sees them, not as methodologically substantive, but as merely coercive. Voltaire sees them as a step backwards in the modernisation of natural philosophy. The diversity of these responses, none of which represent the full range of motivations underlying Descartes' talk about fables and hypotheses, is a consequence of the complexity of his own approach, in which multiple defensive strategies overlap within a single set of self-descriptions. Such descriptions, and the readings they provoke, can be studied together to understand how Descartes' language promotes divergent interpretations, and the potential for misinterpretation.

3 Descartes' achievement. We saw above that the character of early Cartesianism has undergone a reevaluation.[25] Internal debates within Cartesianism about reading and misreading Descartes have a distinctively self-aware character which has not been studied enough: Cartesian theory contains tools for theorising the tendency to resist or misrepresent intellectual reform, especially through its account of childhood prejudice and the role of such prejudice in forming and perpetuating what he saw as bad philosophy.[26] Among early Cartesians, Arnauld makes the most sophisticated use of these tools for understanding and influencing the internal dynamics of early Cartesianism. Chapter 4 of Arnauld's *Des Vrayes et des fausses idées* tells a story about the way in which visual metaphors distort our conception of the mind. We learn as children that we see things either directly, when they are before our eyes, or indirectly, as in a mirror. When as adults we come to theorise the mind, we import this childhood understanding and assume that 'la vue de l'esprit' also sees objects in these two ways:

> Comme tous les hommes ont esté d'abord enfans, & qu'alors ils n'estoient presque occupez que de leur corps, & de ce qui frappoient leurs sens, ils ont esté long temps sans connoistre d'autre vue que la vue corporelle, qu'il attribuoient à leurs yeux. Et ils n'ont pu s'empescher de remarquer deux choses dans cette vue. L'une qu'il faloit que l'objet fust devant nos yeux, afin que nous le pussions voir, ce qu'ils ont appellé *presence*; & c'est ce qui leur a fait regarder cette presence de l'objet comme une condition necessaire pour voir. L'autre qu'on voyoit aussi quelquefois les choses visibles dans les miroirs, ou dans l'eau, ou d'autres choses qui nous le representoient ; & alors ils ont cru, quoyque par erreur, que ce n'estoit pas les corps mêmes que l'on voyoit mais leurs images. Voilà la seule idée qu'ils ont eue long temps de ce qu'ils ont appellé voir […] [S]'estant imaginé que la vue de l'esprit estoit à peu prés semblable à celle qu'ils avoient attribuée aux yeux, ils n'ont pas manqué […] de transferer ce mot à l'esprit avec les mêmes conditions […] (Arnauld 1683, 20-2)

But this extension to the mind generates a problem. The mind is immaterial; how could material

[25] See in particular Schmaltz 2017, and more generally the Introduction above.
[26] See in particular AT 6.13, 7.17/9.1.13, and 8.1.5/9.2.25; see Chapter 1 above.

objects be present to it, as in the first way of seeing? If the mind cannot see material objects directly, it must see them as the eye sees an object in a mirror:

> [Q]uelques-uns avoient reconnu que l'ame estoit immaterielle, & les autres qui la croyoient corporelle la regardoient comme une matiere subtile, enfermée dans le corps, dont elle ne pouvoit pas sortir pour aller trouver les objets de dehors, ni les objets de dehors s'aller joindre à elle. Comment donc les pourra-t-elle voir [?] […] Pour sortir de cette difficulté, ils ont eu recours à l'autre maniere de voir, […] qui est de voir les choses, non par elles mêmes, mais par leurs images, comme quand on voit les corps dans des miroirs. […] [I]s ne se sont plus mis en peine que de chercher qu'elles pouvoient estre ces images ou ces *estres representatifs* des corps […] (22-3)

This leads to the image of the mind as a camera obscura, looking at images projected onto an internal screen (26). (The image is still tempting: modern critics sometimes read Descartes himself as proposing the camera obscura as a model of the mind.)[27] Unchecked, such errors limit progress in the sciences. Arnauld thinks that both scholastics and materialists like Gassendi are similarly beholden to the visual metaphor of the mind (26-7).[28] Descartes' critique of the use of such metaphors is, for Arnauld, his primary achievement in philosophy, and Arnauld's occasion for writing is the resurgence of the visual metaphor within allegedly Cartesian work. His critique of Malebranche arises from his astonishment that someone can have received Descartes' philosophy so clearly and yet submit to the temptation to talk about representative ideas:

> Je ne m'estonne pas que la plus part des Philosophes ayent raisonné de la sorte, aprés avoir reçu aveuglement ces deux principes comme incontestables […] Mais que l'auteur du livre *de la Recherche de la Verité*, qui fait profession de suivre une route toute different les ait reçus aussi bien qu'eux sans autre examén, rien en verité n'est plus étonnant. […] Il sçait que quand on se voit dans un miroir c'est soy-même que l'on voit, & non point son image. Il sçait bien que ces petits estres voltigeans par l'air, & dont il devroit estre tout remply, que l'Ecole appelle des *especes intentionnelles*, ne sont que des chimeres. (27-9)

There has still been relatively little work done on the Arnauld-Malebranche debate.[29] This has obscured how distinctive Arnauld's reading of Descartes is. Some of that distinctiveness can be seen by noting how Arnauld's frustration with Malebranche recalls a reading Cora Diamond has given of Berkeley's *Three Dialogues*. Diamond described the sceptic Hylas as afflicted by a persistent sense that his intellectual sight is distorted:

[27] See for instance Stone 2006, 43-4, and Crary 1990, Chapter 2. Descartes is emphatic that this is not his point: see AT 6.130.

[28] This echoes the connection Descartes draws between Epicureans and scholastics in the *Principia*; see Chapter 2 above.

[29] See the references in Chapter 3 above, and particularly Moreau 1999.

> Hylas has taken himself all along to be like someone wearing distorting spectacles: he has (or so he has thought) only the dimmest grasp of things as they really are, independent of perception, because he knows them only indirectly, through perception. The removal of the glasses is the recognition, through philosophical discussion, that his perceptions never were something between him and the real: he has all along (unbeknownst to his bemused self) been perceiving what *is* real. With the 'removal' of the glasses, he is able to take a totally different view of the reality of what he perceives; he no longer peers vainly for something beyond it. (Diamond 1981, 43)

On Diamond's reading, Berkeley is not so much interested in a mistake on Hylas's part as in a strangely persistent fantasy to which he continually recurs (45). Unlike Hylas, Malebranche is not frustrated by the distortions he assumes are present in his sight. But he shares with Hylas the fantasy that his vision is mediated, and Arnauld opposes this much as Berkeley does. Where Berkeley's point is anti-sceptical, however, Arnauld's is broader, targeting a mistake which he thinks affects contemporary scholastics and sceptics alike. In doing so, he is giving an account, not just of Descartes' achievement, but of the pressures and betrayals Cartesianism is vulnerable to as it tries to maintain the break it has achieved with misleading images of the mind. The integrity of Descartes' legacy relies on his followers' ability to resist the temptations of these images. Arnauld's debate with Malebranche gives us a way of understanding how early Cartesians theorised the reading, and misreading, of Descartes' work.

These three directions offer distinct ways of approaching the historiography of Cartesianism: by understanding the medieval background we still need before we can assess Descartes' contribution to scepticism; by understanding the features of his work which promote the contested readings so prominent in the literature; and by understanding his early readers' own attempts to theorise and navigate the reception of his work. For the moment, I have tried to show in the thesis that Descartes' concerns about teaching his thought — about his responsibilities and his legacy, about what his followers and his enemies will do with his work — pervade his writing.

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