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The Metaphysics of Henry More

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Jasper Reid

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Jasper Reid

The Metaphysics of Henry More

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Chapter 1

Introduction

1 The Place of Henry More in Seventeenth-Century Thought

In his own time, Henry More, D.D., (1614–1687)¹ was regarded as one of the most eminent philosophical authorities in England. Indeed, one could even make a case for treating him as *the* most eminent. Thomas Hobbes was certainly well known, and was acknowledged as a serious thinker: but the contents of his thoughts were widely reviled, while More charted a course that managed to remain near enough orthodox from a philosophical, theological and political point of view. John Locke was beginning to figure out his ideas, but he did not actually get round to publishing them until a couple of years after More's death. And, aside from those two, it is hard to think of another English philosopher of the period who could seriously challenge More for the title. Most of the others who were active at this time—one might perhaps think of Sir Kenelm Digby, or Walter Charleton, or maybe Richard Burthogge, or of More's fellow Cambridge Platonists, such as Ralph Cudworth, John Smith or Nathanael Culverwel—did not even come close to matching More in terms of either the philosophical breadth or the sheer volume of their published works.

¹ On More's life, see Grosart's 'Memorial-introduction' to *The Complete Poems*; the *Conway Letters*; Crocker 2003, and the shorter Crocker 1990a; Hall 1990b, particularly ch. 5; and also Brown 1969. Ward 2000 can be extremely useful on occasion, even if Ward has, with some justification, been accused of achieving 'the difficult task of writing a Biography without giving any information respecting his hero' (by Benjamin Street, as quoted by Grosart in *The Complete Poems*, p. ix, col. a). A similar assessment was made by John Tulloch in 1872: 'Ward's Life is interesting, but vague, uncritical, and digressive, after the manner of the time.' (Tulloch 1874, vol. 2, p. 304 n. 1). At this distance, we can unfortunately say *exactly* the same thing about Tulloch's own long discussion of More. More himself provided some autobiographical and bibliographical details in the epistle to the reader of the 1660 edition of *An Explanation of the Grand Mystery of Godliness*, and again in the *Praefatio generalissima* to his *Opera omnia* (vol. 2.1, pp. i–xxiv). The *Praefatio generalissima* is especially useful for pinpointing the dates of composition of some of More's works, as are the *Conway Letters*.

More's career spanned nearly half a century, and he certainly made the most of that time. In the preface to *An Explanation of the Grand Mystery of Godliness*, his ninth book, More promised his reader 'no small hopes that this Discourse may prove the last from my hand that shall exercise thy patience'.² He went on to produce around twenty more. More's work covered topics as diverse as metaphysics, ethics, natural science, Biblical exegesis, natural theology and mystical theosophy, as well as touching more tangentially on epistemology, psychology, politics and even (in the third of the *Divine Dialogues*) social anthropology. Even those of his contemporaries whose output did approach (though not exceed) his own in terms of range or at least size—Joseph Glanvill or Margaret Cavendish, for instance—looked up to More, be it for leadership or as a subject for respectful criticism.

Cavendish is especially worthy of mention here. In her *Philosophical Letters* of 1664, the Marchioness of Newcastle made detailed and extensive examinations of the views of those figures whom she took to be the most important philosophical and scientific authorities of the age. As we might expect when looking back from a twenty-first-century viewpoint, she examined Descartes, Hobbes, J.B. van Helmont and William Harvey. But what might seem more surprising to a twenty-first-century reader—one who is perhaps rather too indoctrinated by the traditional textbook account of the early modern philosophical canon—is that she not only saw fit to place More in this company, but in fact devoted about as many pages of her book to More as to Descartes and Hobbes *put together*! Even Hobbes himself—from More's own point of view, the arch-enemy, whom he took great care in thoroughly refuting—is alleged to have commented that, '*if his own Philosophy was not True, he knew of none that he should sooner like than MORE's of Cambridge*'.³ As for Descartes, when Cudworth and Samuel Hartlib concocted a plan to initiate a philosophical engagement with the great man, it was to More that they assigned the task of actually writing the letter.⁴ The ensuing correspondence is one of the most revealing for scholars of Cartesianism; and it might indeed have been followed by a similar correspondence between More and Gassendi. More initially seemed willing to enter into such a correspondence, but then bowed out, complaining to Hartlib that 'Gassendus is too tedious a philosopher for me.'⁵

Nearly four decades later, More was still active. He is indeed perhaps the only figure who can claim to have engaged personally with both Descartes *and* Newton. More and Newton's times at Cambridge overlapped by a quarter of a century, and they might conceivably have already been acquainted before the younger man even arrived there. (Newton grew up in More's native Grantham; he attended the Free School there, where More himself had studied before progressing to Eton.

² *An Explanation of the Grand Mystery of Godliness* (1660 edition), p. v (To the Reader, §1).

³ Ward 2000, p. 55. Reported, with some discussion, in Laird 1937, p. 243; Lichtenstein 1962, pp. 169–170; Henry 1986a, p. 195. This slightly surprising claim, it must be acknowledged, is wholly unsubstantiated.

⁴ Regarding these machinations, see Webster 1969, here at p. 364.

⁵ Webster 1969, p. 375 and (here) p. 376, quoting More to Hartlib, 5 November 1649.

An assistant-master at the school, Dr Joseph Clark, was a former student of More's, as well as being the brother of the man with whom the young Newton lodged, and More would stay with him when he was in town).⁶ But, even if they did not get to know one another in Grantham, they certainly did so in Cambridge. Indeed, Newton even ended up being one of only 15 people specifically named in More's will, receiving a funeral ring.⁷ In a letter of 1680, More mentioned a discussion he had had with Newton, concerning the interpretation of prophecy—a keen interest for both of them—and he also used the occasion to remark: 'Mr Newton has a singular Genius to Mathematicks, and I take him to be a good serious man.'⁸

Beyond prophecy, however, it is impossible to know and risky to speculate about what else More and Newton might have discussed face to face. It is perhaps unfortunate for us, from a scholarly point of view, that they lived in the same town, and hence could easily meet up for face-to-face discussions, because what that means is that they did not leave a written correspondence behind them. Frustratingly, the very fact that the circumstances were so conducive to a debate between them is precisely what prevents us from having much of a record of any such debate. But Newton was certainly aware of More's work on the metaphysical underpinnings of natural philosophy. His library contained More's *Philosophicall Poems, An Antidote Against Atheism* and *The Immortality of the Soul* among several other works, some of them being inscribed as personal gifts from the author.⁹ In his notebook of the mid-1660s, known as *Questiones Quaedam Philosophicae*, Newton referred to and quoted from *The Immortality of the Soul* in particular, drawing on More's discussions of atoms, and of physiology and the location of the common sensorium.¹⁰ It is not unrealistic

⁶ See *Conway Letters*, pp. 98, 392, 394, 398, 400, 482. There are several biographical details to be gleaned from Turnor 1806, concerning More, and Newton, and the More family, and the Newton family, and (at p. 176) even the Clark brothers. Also see Newton 1959–1977, vol. 1, p. 306 n. 2; Hall 1990b, pp. 82, 102–103, 202–206; and Hall 1996, pp. 7–8.

⁷ *Conway Letters*, p. 482 (The Will of Henry More). Dr Clark was also mentioned, and received some medical books.

⁸ *Conway Letters*, p. 479 (More to Dr John Sharp, 16 August 1680). On More and Newton on prophecy, see Cajori 1926; and also Hutton 1994, Iliffe 1994, and the other papers in that volume.

⁹ The other works were mostly on prophecy rather than metaphysics, but not exclusively so: *Apocalypsis Apocalypseos* (1680), *Discourses on Several Texts of Scripture* (1692), *A Plain and Continued Exposition of the Several Prophecies of... Daniel* (1681), *Tetractys Anti-Astrologica* (1681), *Observations upon Anthroposophia Theomagica, and Anima Magica Abscondita* (1650) (bound with those works by Thomas Vaughan), and *Paralipomena Prophetica* (1685). Newton also had *An Answer to Several Remarks upon Dr Henry More his Expositions of the Apocalypse and Daniel* by 'S.E. Mennonite' (1684), and the anonymous *Remarks upon Dr. Henry More's Expositions of the Apocalypse and Daniel* (1690). See Harrison 1978, pp. 87, 195–196, 205, 210, 226. Hall 1990b, pp. 277–278, presents a table of precisely which of More's works were found, and how many times, in the libraries of various different members of the Royal Society; and he identifies Newton, alongside John Ray, as having possessed the equal largest number, nine each.

¹⁰ See Newton 1983, pp. 341, 383, 385, 393, together with the other references to More as listed in the index, both those within Newton's text and those in the editors' commentary.

to suppose that Newton might have taken up the opportunity he had to discuss such ideas with the man himself. We do know, for instance, that Newton personally endeavoured to get More to join an ultimately abortive project for a Cambridge-based ‘Philosophick Meeting’.¹¹ And, indeed, we can discern certain Morean themes here and there in Newton’s own works, such as in his claims about the relationship between God and absolute space, to be discussed further below.

In between More’s interactions with Descartes in the 1640s and Newton in the 1680s, he also engaged—in print if not in person—with virtually all of the best minds of his generation. He arrived on the scene just about early enough to qualify as part of the first wave of English philosophers to react to Galileo’s discoveries, and he made use of them in his own theory of the physical world, readily pledging allegiance to the doctrine of the motion of the Earth and—at least for a while—to Galileo’s theory of tidal motion.¹² He was also an early champion of William Harvey’s theory of the circulation of the blood, writing a tribute to Harvey’s achievement in verse.¹³ And he was elected to the Royal Society in 1662 as one of its earliest members. Admittedly, at least if we trust Henry Stubbe’s account, he did not keep up with the weekly contributions thereafter, which amounted to a de facto resignation.¹⁴ (Though More did respond to this allegation, complaining: ‘It was a great marvel to me, that he should pretend to know better than my self, whether I still be of the *Royal Society*, or no. For *I take my self still to be of it, and I am sure I have not left it*’).¹⁵ Even while he was involved with the Society, there is no evidence that he actually had any hands-on involvement in its experimental research projects.¹⁶ But he was intimately familiar with their results. Among the many other eminent

¹¹ Newton 1959–1977, vol. 2, p. 415 (Newton to Aston, 23 February 1684/5); Hall 1990b, pp. 169–170.

¹² See Staudenbaur 1968, especially pp. 566–568, 576–578; Hall 1990a, pp. 38–40; Hall 1990b, pp. 275–276.

¹³ See Shugg, Sherwin and Freyman 1972.

¹⁴ See Stubbe 1671, p. 64.

¹⁵ More to Glanvill, in an undated (but 1671) letter printed in Glanvill 1671, pp. 154–155. On More’s exchange with Stubbe concerning the Royal Society, see Hall 1990b, pp. 177–179; Crocker 2003, pp. 151–156; Hutton 2004, pp. 130–133.

¹⁶ The Society did regard More’s work as having—despite appearances, as the reviewer (probably Henry Oldenburg) acknowledged—sufficient relevance to its own for it to be worth including a review of *Enchiridion metaphysicum* in its *Philosophical Transactions*: Oldenburg 1671. But few of its members had much sympathy with it. On More’s position within the Royal Society, see Hall 1990a, pp. 40–45; Hall 1990b, ch. 9, especially pp. 168–170, 174–175, together with appendix 3 (pp. 277–278). But Hall misinterprets—indeed, misquotes—Pepys’s diary as containing a record of More’s presence in person at the Society on the occasion of a visit by Margaret Cavendish. In the entry for 30 May 1667, Hall quotes Pepys as having written: ‘here was Mr. Moore of Cambridge, whom I had not seen before, and I was glad to see him’. (Hall 1990b, p. 169). But, quite aside from the fact that Pepys, had he been talking about our philosopher, would undoubtedly have called him ‘Dr. More’ rather than ‘Mr. Moore’, the fact is that he did not even write that much. The reference is instead to one ‘Mrs. Moore... and I was glad to see *her*!’ (Pepys 1953, vol. 2, p. 473, emphasis added).

scientific figures with whom More interacted in print, he both criticised and was criticised in turn by Robert Boyle and Robert Hooke.¹⁷

Away from natural science, when Cromwell received the great Jewish scholar, Menasseh ben Israel, into England in the 1650s, More met with him and they discussed the pre-existence of the soul together.¹⁸ Admittedly, in relation to Judaism, More behaved as something of a magpie, only really interested in those fragments of Jewish doctrine that he might be able to use for his own purposes. As David Katz has persuasively argued, More probably did meet but made no real effort to pursue Cambridge's own resident expert on Judaism, Isaac Abendana.¹⁹ Nevertheless, in the 1670s, More would be numbered among the contributors to Christian Knorr von Rosenroth's *Kabbala denudata*, the most extensive compendium of texts from or concerning the authentically Jewish Cabbala thus far published in any language.²⁰ Or, again, More was one of the very first authors anywhere in the world to publish a detailed and thoughtful critique of Spinoza. The latter's *Tractatus theologico-politicus* appeared in 1670: More wrote his response, *Ad V.C. epistola altera*, in 1677, and published it in 1679.²¹ When Spinoza's *Ethics* appeared posthumously in 1677, More's reply was even quicker. His *Demonstrationis duarum propositionum... confutatio* was written in 1678 and, again, published in 1679. (With Spinoza already dead, it goes without saying that what we do not have in this case, as we do in so many others, is the benefit of a reply to More's criticisms, or any reciprocal criticism directed back against More's own position).

As far as the demand for More's writings was concerned, Ward reports: 'they were in such Request, or so bought up, when time was, that the late Mr. *Chiswel* told a Friend of mine, *that for twenty Years together, after the Return of King CHARLES the Second* [i.e. the period 1660–1680], *the Mystery of Godliness, and Dr. MORE's Other Works, ruled all the Booksellers in London.*'²² Even two decades

¹⁷ More criticised both Boyle and Hooke in his *Enchiridion metaphysicum* of 1671 (and he criticised Boyle, at least, in many other places too). Boyle replied to More's criticisms in *An Hydrostatical Discourse occasion'd by some Objections of Dr. Henry More* (1672); Hooke replied in *Lampas: or, Descriptions of some Mechanical Improvements of Lamps and Waterpoises* (1677). More responded to them both in the scholia that he added to the *Enchiridion* in its 1679 edition. On the relations between More and Boyle (especially), see Greene 1962; Shapin and Schaffer 1985, pp. 207–224 and passim; Hall 1990b, pp. 181–198; Henry 1990; Jenkins 2000; Crocker 2003, pp. 157–162; Hutton, pp. 133–137.

¹⁸ See *Two Choice and Useful Treatises*, second part, p. 27 (*Annotations upon Lux Orientalis*, on ch. 4, pag. 41), and Berg 1989.

¹⁹ Katz 1990.

²⁰ See Coudert 1999, ch. 6; Crocker 2003, ch. 12; Hutton 2004, ch. 8.

²¹ More had been aware, at least, of Spinoza's book even earlier than this. In a letter to Robert Boyle, of 4 December 1671, he wrote: 'it is not a week ago, since I saw a letter, that informed me, that *Spinosa*, a Jew first, after a Cartesian, and now an atheist, is supposed the author of *Theologico-Politicus*'. Boyle 2001, vol. 4, p. 232.

²² Ward 2000, p. 101. Also see Nicolson 1925, p. 433; and Tulloch 1874, vol. 2, pp. 303 and 340–341.

after his death, there was still sufficient demand for More's works that Joseph Downing—who had already published his posthumous *A Collection of Aphorisms* and *Divine Hymns* in 1704 and 1706 respectively—published, in the five years from 1708 to 1713, not only a first collected English edition of More's *Theological Works*, and Richard Ward's *Life* of More, bound together with More's own *Select Letters*, but also new editions of *A Collection of Several Philosophical Writings*, *Enchiridion ethicum*, and the *Divine Dialogues*. These volumes contained, between them, no fewer than eleven of More's most important works, and a whole host of shorter supporting pieces to boot. They were no mere reprints either: a great deal of painstaking work had gone into translating the Latin notes and scholia that More had added to the revised editions of these works in his *Opera omnia* of 1675–1679.

Outside England, More's Latin works, and the Latin translations of the works originally published in English, assured him a European readership.²³ Among those European authors who took the time to comment in detail on More's philosophy, one might for instance mention Leibniz or J.C. Sturm.²⁴ Still further afield, Norman Fiering reports that, as a matter of fact, 'no other writer had as much influence on American academic philosophy between 1690 and 1720 as More.'²⁵ To name just one philosopher of Colonial America—but the greatest one of all—Jonathan Edwards's early opinions do seem to have been at least partially influenced by More's.²⁶

²³ Shortly before the publication of the two philosophical volumes of More's *Opera omnia*, a distinct Latin translation of *The Immortality of the Soul* was prepared by Christian Knorr von Rosenroth, and published by Francis Mercury van Helmont as *D. Heinrici Mori Tractatus de anima, ejusque facultatibus et naturali immortalitate* (Rotterdam: Isaaci Naerani, 1677). This edition is now quite rare, but copies of it can still be tracked down. But it was pretty heavily abridged: most (though not all) of bk. 1 is present; but bk. 2 is rattled through rather swiftly; and, as for bk. 3, the final eight chapters there are dropped altogether. Robert Crocker reports (citing Watt's *Bibliotheca Britannica* of 1824, vol. 2, at 682 g) that there may have been an earlier edition of this in 1675. But there no longer seems to be any definite trace of that one and, for my part, I am somewhat sceptical over whether it ever really existed at all. Watt was not infallible. Also missing, presumed lost, is a French version of the same work, which was apparently done in manuscript by Pierre Briot at around the same time, and to which Leibniz seems to have had access. See Grua's note in Leibniz 1948, vol. 2, p. 509 (and, while there, take a look at Leibniz's own comments at pp. 509–511); together with Brown 1990, pp. 77, 91 n. 2; Crocker 1990c, pp. 226, 247 n. 3; and Crocker 2003, pp. 183, 195 n. 5, 211, 236 n. 9.

²⁴ Sturm examined More's theory of the Hylarchic Principle (Spirit of Nature), as developed in 1671's *Enchiridion metaphysicum*, in an appendix to his *Collegium experimentale sive curiosum* of 1676. More replied in the scholia he added to the 1679 edition of the *Enchiridion*. As for Leibniz, his discussions of More, scattered (as is so much in Leibniz's work) across a diverse collection of papers and letters, also tend to focus primarily on his Hylarchic Principle. More seems to have been oblivious to these mostly private, posthumously published remarks, most of which postdated his own death anyway, and he made no reply to Leibniz.

²⁵ Fiering 1988, p. 91. See also the similar remark at Fiering 1981, p. 16.

²⁶ See the editor's references to More, as listed in the index, in Edwards 1980.

Admittedly, it is true that there were many people who really did not think very highly of More at all. For instance, whereas More's first biographer maintained that he had been credibly informed that Descartes had claimed 'that he knew no person who more thoroughly understood his Philosophy then one *More of England*',²⁷ Descartes' own first biographer was utterly dismissive: 'M. Descartes had other friends in England of greater importance, and less capable of the fickleness that appeared in the conduct of M. More.'²⁸ Nevertheless, he did receive a great deal of attention and, indeed, support from a great many quarters, and from popular ones as well as scholarly. In 1673, More's fame within the republic of letters was sufficient that Aphra Behn could comfortably refer to him (without actually naming him) in the epistle to her 'good, sweet, honey, sugar-candied reader' which preceded *The Dutch Lover*, safe in the knowledge that the afore-mentioned reader would be capable of picking up on the allusion. True, the allusion was not a flattering one. Behn observed how, having been promised topics such as the immortality of the soul, the mystery of godliness and ecclesiastical policy, readers were instead finding themselves treated 'with Indiscernibility, and Essential Spissitude (words, which though I am no competent Judge of, for want of Languages, yet I fancy strongly ought to mean just nothing) with a company of Apocryphal midnight tales cull'd out of the choicest insignificant Authors.'²⁹ But, that complaint notwithstanding, it would at least have been common knowledge at whom it was aimed. So central was More to the intellectual life of the period that, many years later, when Joseph Henry Shorthouse prepared a novel set in Restoration England (*John Inglesant*, 1881), he could not resist giving a More a cameo role in the story.

Regarding the Apocryphal midnight tales of which Behn complained, it is also worth mentioning Joseph Glanvill's *Saducismus Triumphatus*, for this work—a major popular success in its day—served to cement not only Glanvill's but also More's reputation still further. Although Behn herself might have turned up her nose, there was, just as there has always been, a lively popular fascination with ghost stories, and Glanvill's book had already been progressing through several editions (and, indeed, titles) before More got his hands on it on the death of its author in 1680. Having originated in a 1666 work called *A Philosophical Endeavour towards the Defence of the Being of Witches and Apparitions*, More gave it its new name in 1681, and it promptly entered into another rapid sequence of editions in this new guise.³⁰ But More did not merely reprint Glanvill's already-popular text: he added new texts of his own. Some of these were simply further accounts of apparitions, but others were more immediately concerned with abstruse matters of metaphysical analysis.

²⁷ Ward 2000, p. 338. It is not at all clear who Ward's informant was supposed to have been, or just how credible such testimony can be considered.

²⁸ Baillét 1691, vol. 2, p. 363 (bk. 7, ch. 15).

²⁹ Behn 1996, p. 160.

³⁰ See Coleman O. Parsons' introduction to the 1966 reprint edition of *Saducismus Triumphatus* for an account of its publishing history, together with an assessment of the popularity of books of its kind in England at the time.

After the book's readers—be they philosophers or lay-people—had first devoured Glanvill's discussions of witches, and before they arrived at the collection of relations of apparitions, they would find himself being led through some extremely arid and rarefied philosophical regions, with More as their guide.

It is, of course, true that More is not as well remembered today as some of his contemporaries are: but that is changing. There has been a move in recent decades to expand the historical philosophical canon beyond the traditional names so familiar from undergraduate survey courses. If one is going to get properly to grips with the ideas of any historical philosopher at all, be they great or small, one needs to endeavour to free oneself from anachronistic prejudices, and to enter as far as is possible into that figure's own mind, viewing things through their own conceptual framework and grasping their own motivations (while simultaneously guarding against actually being biased by these, of course, so as to retain a scrupulously objective standpoint). But this is only going to be achievable once one has first grasped the wider intellectual context that was shaping the outlook of all those who worked within it; and, by and large, the 'great' figures are nowadays considered such precisely because they were struggling *against* the tide. It was the philosophers of the *second* rank whose work served to establish the context that informed not only their own ideas but those of the big names. As much as such mainstream figures might be less well remembered nowadays, they were considered important in their own time precisely because they were so instrumental in consolidating a common conceptual backdrop for philosophical activity. Henry More is just such a figure. As John Passmore has put it: 'To ignore the Platonists... is to run the risk of misunderstanding and grossly oversimplifying the history of British speculative ideas and moral attitudes, which are too often taken to be wholly dominated by empiricist and utilitarian concepts.'³¹

So, even if the only reason to study More was to gain a clarificatory and analytical insight into the ideas of other authors, that would already be reason enough. Quite aside from his more general role in contributing to the overall structure of seventeenth-century thought at large, his works also provide important insights into the ideas of a wide array of specific figures. One does really have to go quite a long way to find a thinker of the period whose work remains untouched in More's writings. Besides those great names already mentioned—Descartes, Hobbes, Spinoza, Boyle, Newton, et al.—More also engaged philosophically with dozens of comparatively less well-known figures, such as Thomas Vaughan, Jakob Boehme, Richard Baxter, Francis Glisson, Matthew Hale, John Norris, F.M. van Helmont and Anne Conway, to name but a few.³² Many of More's criticisms of his contemporaries are profoundly insightful, and shed important light on both the content and the sustainability of

³¹ Edwards 1967, vol. 2, p. 11a (article on 'Cambridge Platonists').

³² Crocker 2003 surveys many of More's debates with other figures, including some that have not been examined elsewhere. I am not going to be touching on every one of these in the present work: but, for those specific cases that I do examine, further suggestions for secondary literature will be given in their proper places below.

their ideas and arguments. Even in those cases where More's criticisms do miss their targets—for sometimes they do—they nevertheless help to bring into vivid focus many of the reasons why the works of these other individuals were deemed so controversial (or so popular, as the case may be) in their day. One might perhaps compare More with a figure like Antoine Arnauld. Both of them were widely respected philosophers in their own day. (Arnauld was somewhat controversial, from the point of view of the Catholic Church, for his Jansenist principles; More was somewhat controversial, from the point of view of the Church of England, for his views on the pre-existence of the soul: but both were largely tolerated). Through correspondence and published works, both of them produced revealing critiques of the philosophical ideas of other major figures of the period: in Arnauld's case, one thinks of the Fourth Set of Objections and the correspondence with Descartes, the even more voluminous correspondence with Leibniz, and the truly colossal polemic exchange with Malebranche.

But then, the fact is that both Arnauld and More did much more than merely criticise their contemporaries. Both of them also came up with a number of genuinely innovative and occasionally quite influential theories that were all their own. Arnauld's direct realism, for instance, was an original and an important contribution to seventeenth-century philosophy of perception, and it is increasingly receiving the scholarly attention it deserves.³³ And More, likewise, is very far from being worthy of study *only* in relation to other authors. He was also a tremendously distinctive thinker in his own right, who developed several highly idiosyncratic views.

For instance, although there were plenty of other atomists around in the seventeenth century, most of them felt that, even if no natural power could divide an atom, an omnipotent God should still remain capable of doing so. More, by contrast, regarded the division of an atom as a strict, metaphysical impossibility, one that not even omnipotence could overcome. Even more unusually than that, More believed in a *plenum* of atoms, adopting one plank of the traditional atomistic system while spurning its usual accompaniment, the void. More unusually still, he refused to allow that individual atoms could possess any shapes whatsoever, in stark contrast to the classical atomists, who had treated the varied shapes of atoms as absolutely key in explaining the differences in the qualities of their compounds.

Or, again, whereas most of his contemporaries were satisfied with the notion that corporeal matter was simply created out of nothing, More stood somewhat apart by carefully continuing to explore the notion of a purely potential *prime* matter, and struggling over several decades to find a coherent way to explicate that classical idea in modern terms. In parallel with this, he also devised a theory of immaterial space that would cast a long shadow over later discussions, Newtonian and otherwise. And then, in parallel with that, he devised a theory of spiritual extension that was even more groundbreaking. Perhaps the first person ever to do so, More argued directly against the traditional 'holenmerian' theory of spiritual presence that had so dominated Classical, Medieval and Renaissance discussions, in favour of a

³³ See, for instance, Nadler 1989.

sophisticated alternative whereby the human soul and a spatial God could possess parts outside parts without thereby being rendered corporeal. The fact that this spiritual extension was supposed to be, in some sense, four-dimensional just serves to make it all the more remarkable. Or, just to give one final example among still others that might be mentioned: More's keenness to test the boundaries of the new, mechanical science of his era generated, over the course of his long career, a number of carefully thought-out positions, which synthesised elements of both modern mechanism and ancient vitalism in an evolving variety of different and original ways.

These, and others like them, are the topics that I shall be examining in detail in this book. As I have said, More's overall project did traverse most branches of philosophy and theology, both pure and applied: but, for reasons of space and focus, I shall gloss over many of these in the present work. But at the heart of More's thought, and the central hub where those various branches all met, was a metaphysical system that was an innovative, a widely discussed and, at least partially, an influential contribution to seventeenth-century philosophy. The goal of this book is to elucidate More's metaphysical views, both corporeal and spiritual. Although several of the various individual components of More's metaphysics have been regularly discussed in the secondary literature (with greater or lesser degrees of adequacy and accuracy), there has been less effort to examine them all together as a corporate whole. But, for More himself, they were all intimately related to one another in one great chain of being. By appealing to the actions of spiritual beings in his explanation of some or ultimately all physical phenomena, by clothing all created spirits in corporeal vehicles of varying degrees of subtlety, and by making all things 'live, and move, and have their being' in God in a strikingly literal sense, More was blurring the line between physics and metaphysics, if not obliterating it completely. To consider his theory of spiritual reality separately from his theory of matter, or vice versa, will be to risk misunderstanding both of them: so we will need to look at both.

Moreover, even individually, some elements of More's system have, to date, been neglected by commentators altogether. To give just one example: nobody seems to have noticed that, in his early writings, More was firmly committed to the view that, notwithstanding the fact that some bodies might be united to really distinct spirits, they *additionally* needed to be granted some minimal form of intrinsic life, all of their own. To be fair, it is understandable that this point might have been missed, given that it was a thesis that More himself vigorously opposed in some of his later writings. But then that fact leads into another lacuna in the existing secondary literature: the existing studies have not done justice to the degree to which More's philosophy *changed* over the decades. Anyone who regards the corpus of More's writings as a single unit, without maintaining a due sensitivity to its chronology and the shifts that occurred in his views, will be in danger of misunderstanding all of it, whether early, middle or late. For his views did also change on many other issues besides this, sometimes progressing gradually along a constant path, but sometimes reversing through a hundred and eighty degrees (and occasionally even then going on to reverse such reversals). His friendship, as he explained when introducing one

such reversal, was more with truth than with himself.³⁴ Whenever the force of evidence and argument mounted up against one of his own formerly cherished opinions, he was always willing to abandon it, either to switch to another pre-existing viewpoint, or to dream up a completely new one of his own. So the approach of the present work will be a dynamic one, paying to such shifts the attention that they are due.

2 More's Goals, Targets and Influences

More set out his fundamental objective in The Preface General to *A Collection of Several Philosophical Writings*. 'The great Cement', he wrote, 'that holds these several Discourses together is *one* main Design, which they jointly drive at, and which, I think, is confessedly generous and important; namely, *The knowledge of God, and therein of true Happiness*, so far as *Reason* can cut her way through those darkneses and difficulties she is incumbred with in this life.'³⁵ Just as so many other philosophers and theologians had been doing for centuries, More wished to demonstrate the existence of God, to shed some light on his nature, to prove the immortality of the human soul, and to provide some account of the happiness that a deserving soul could expect after its separation from its terrestrial body. But, notwithstanding the timeless universality of his fundamental concerns, More was thoroughly embedded in the general intellectual climate of the day. Despite the extensive use he made of classical texts in his work when it suited him to do so, he was very much a modern philosopher, who, as we have already seen, placed himself at the very centre of some of the hottest debates of the seventeenth century. As far as More was concerned, anyone who would deliberately oppose any of these notions, or whose arguments would tend even unwittingly to undermine them, was a valid target. Consequently, More *had* to be sensitive to the currents of his own time, because the threats to what he viewed as true religion and spirituality were themselves specific to that time. In the seventeenth century, there was little to be gained from rehearsing old arguments against ideas that had been fully extinguished a thousand years earlier. Instead, new arguments had to be found, to combat new dangers.

More viewed the threats of the day as stemming from three main sources: Roman Catholicism, enthusiasm, and materialist atheism.

His critique of Roman Catholicism was largely conducted on a basis of revealed religion, involving the close analysis of scripture, and it generates fewer philosophically interesting issues than many of his other discussions. Consequently, this topic will not feature very much in the present work. But it is at least important to understand More's position: and that position was one of animosity. In a century of Popish plots, Protestant paranoia, persecution in each direction, and regular outright warfare,

³⁴ *The Complete Poems*, p. 90b (*Democritus Platonissans*, To the Reader).

³⁵ *A Collection of Several Philosophical Writings*, The Preface General, p. iv (§2).

More placed himself firmly at the forefront of the campaign to provide an unassailable intellectual justification of Anglican Protestantism against Roman Catholicism. He might not have shared the vitriolic, often bloodthirsty hatred that so many seventeenth-century Protestants harboured towards the Catholics (and, of course, vice versa), but nevertheless he felt that their views were profoundly incorrect and Antichristian. Indeed, throughout More's extremely voluminous corpus of directly theological works, although a number of different topics do crop up along the way, the central, dominant theme is a minute critique of Roman Catholicism. More approached this topic from all manner of directions, in an sustained attempt to show that the authority of the Church of Rome was entirely unjustified and that its dogmas were riddled with contradictions, while the Church of England was eminently rational in all of its teachings, and that its existence, structure and doctrines were all perfectly grounded in the teachings of scripture and the early Fathers. In recognition of his considerable efforts, More's *Opera omnia* earned themselves a place on the Catholic Index of Prohibited Books in 1696.

But More was always keen to steer his philosophical and theological deliberations down a middle path, and to avoid the excesses of *both* sides in any debate. Thus, despite the fact that he was a committed libertarian in religion, very much one of the 'latitude-men' as the Cambridge Platonists were known in their own day,³⁶ he was nevertheless deeply concerned about the untoward by-products of such latitude. As England was thrown into chaos and confusion by the Civil Wars of the 1640s, a multitude of ultra-Protestant sects began to spring up. Thanks to the climate of religious toleration of the period, still shaky but nevertheless on the rise, many of these managed to survive through the Commonwealth and into the Restoration period. Indeed, some—most prominently, the Society of Friends, or 'Quakers', founded in 1648 by George Fox—have even survived into our own time. First, the Anglican Church had thrown off the shackles of the Roman Catholic Church. Then the Puritans had (for a while, at least) triumphed over a Church of England that they deemed to be insufficiently Protestant. It was only to be expected that some people would feel that even mainstream Puritanism had still not gone far enough, and would set out to find new prophecies and to build new religious communities of their own. More himself was a staunch Anglican, with no great love for mainstream Puritanism, let alone its more extremist off-shoots.

The central concern that underlay More's distaste for these groups was their enthusiasm. Notwithstanding the more mundane connotations that the word took on as it began to filter into mainstream language, in the seventeenth century 'enthusiasm' referred specifically to the view of certain people that they had been specially singled out by God to receive personal and supernatural revelations of divine truths. Enthusiasm, in this sense, was nothing new: but it was definitely increasing. There might possibly have been a handful among these radical sects that were free of it, but there were not many. Indeed, in England throughout most of More's career, the

³⁶ See *An Explanation of the Grand Mystery of Godliness*, pp. 361–370 (bk. 10, chs. 10–12). For a contemporary (1662) account of the 'latitude-men', see Patrick 1963. For more recent views, see Nicolson 1929; Dockrill and Lee 1994; Crocker 2003, ch. 6.

Catholics were on the run, so that, of the two, More felt that it was the enthusiasts who were providing the more pressing danger. 'I dare pronounce with a loud voice aforehand,' he wrote, 'That if ever *Christianity* be exterminated, it will be by *Enthusiasme*. Of so great consequence is it rightly to oppose so deadly an evil.'³⁷

More's own attitude—and an attitude in which he was by no means alone—was that these pretended inspirations were nothing more than the effects of melancholy on an overheated imagination. In short, he viewed enthusiasm as a symptom of mental illness. In his writings, More directed his criticisms of enthusiasm against a number of targets, including sects like the Quakers, together with another, slightly older group known as the Family of Love, surrounding one Hendrik Niclaes. He also found the clear traces of similar—and similarly deluded—enthusiasms in a number of mystical theosophists such as Jakob Boehme (1575–1624) and Thomas Vaughan (1622–1666), and he wrote directly against each of these.³⁸ The subtitle of *Enthusiasmus Triumphatus* (1656), the centrepiece of More's writings on the topic, serves to sum up his general objective: *a Brief Discourse of the Nature, Causes, Kinds and Cure of Enthusiasm*.

The reason why More felt that it was so important to 'cure' the enthusiasts of their delirium was because it was causing them to depart from the tenets of true Christianity, to just the same degree as the Roman Catholics were being compelled by their Church to swallow absurd and Antichristian dogmas. More's own Christianity was a thoroughly *rational* religion, and this was what both the Catholics and the enthusiasts were turning their backs on. More did not reject the traditional Christian mysteries, the comprehension of which was bound to exceed the capacities of the human mind. But what he certainly did feel was that anything that directly contradicted the dictates of natural reason had no place in true religion. This, however, was what the Roman Catholic Church was insisting on, with its (as he saw it) literally incoherent dogmas such as that of Transubstantiation—'infallible contradictions', as More derisively termed them.³⁹ That Church was not permitting its adherents fairly to weigh up these dogmas against the dictates of their God-given faculty of reason. Had they been allowed to do so, they would quickly have found them wanting. The enthusiasts, by contrast, although they might have had the *opportunity* to appeal to that faculty, were voluntarily declining to do so, favouring instead their own pretended inspirations. The thing that set the enthusiasts' inspirations apart from the natural light of reason was that the latter was a universal capacity, common to all mankind. The very fact that these enthusiastic inspirations were, by definition, private to the individuals in question was, from More's point of view,

³⁷ *An Explanation of the Grand Mystery of Godliness* (1660 edition), p. vi (To the Reader, §6).

³⁸ The principle study of More's treatment of enthusiasm in general is Fouke 1997. See also Crocker 2003, ch. 4 and passim. On the controversy with Vaughan in particular, see also Burnham 1974; Brann 1980; Guinsberg 1980; Crocker 1990b, pp. 144–47. On More and Boehme, see Hutton 1990b.

³⁹ More produced long lists of such 'infallible contradictions', for instance in *A Modest Enquiry into the Mystery of Iniquity*, pp. 464, 484–485 (bk. 2, ch. 4, §5; ch. 8, §§19–21).

sufficient to prove that they amounted to a false light, not coming from God but instead arising out of the melancholy temperaments of those individuals themselves. As More told his reader, his ultimate goal was ‘to make thee so wise, as neither to impose upon thy self, nor be imposed upon by others, in Matters of Religion; and so Orthodox, as to become neither *Enthusiast* nor *Romanist*, but a *true Catholick* and *Primitive Apostolick Christian*.’⁴⁰ The Romanists were being deceived by their Church; the enthusiasts were deceiving themselves: but, either way, neither was following the correct path of rationality.

But of considerably greater relevance to our current project than those two, More’s third main target was materialist atheism. Whereas Roman Catholicism was to be combated primarily on the basis of revealed theology, and enthusiasm was reduced to a psychological or even physiological aberration, it is the case of materialist atheism that leads us most directly into the realm of metaphysics.

More viewed the rise and spread of atheism as a second consequence of the way in which the era’s political climate was ‘loosening the Minds of Men from the Aw and Tyranny of meer customary Superstition, and permitting a freer perusal of matters of Religion than in former ages’.⁴¹ On the one hand, the increase in religious toleration that followed this liberation from Roman Catholic domination had generated the excesses of the enthusiasts. On the other hand, the new free-thinking tendency elsewhere seemed to be manifesting itself in outbreaks of full-blown atheism. Naturally, then, just as More had sought to discover the nature, causes, kinds and cure of enthusiasm, it was also incumbent on him to do the same for atheism—hence his *Antidote* against that alarming disorder.⁴² As for atheism’s nature, causes and kinds, More connected it directly with philosophical materialism. There is, perhaps, no necessary conceptual link between materialism and atheism: but they do, nevertheless, seem to be natural partners; and, certainly as far as More was concerned, all of the real-life materialists of the period were atheists, and vice versa.

More viewed Hobbes as the leading proponent of this position.⁴³ Hobbes, freely by his own admission, was indeed a materialist, claiming that the very notion of an ‘immaterial substance’ was a contradiction in terms. At the same time, he did continue to insist that he was a faithful theist and Christian. But More felt that such claims simply could not be taken seriously. Hobbes also admitted explicitly that not even God was to be excluded from the scope of his materialism—that God was a body.⁴⁴ From More’s point of view, no ‘god’ like *that* was genuinely worthy of the name; and, if this was the only ‘god’ that Hobbes was prepared to countenance, then Hobbes was an atheist, pure and simple. Besides which, even leaving God out of it,

⁴⁰ *A Brief Discourse of the True Grounds of the Certainty of Faith in Points of Religion*, p. 770.

⁴¹ *An Antidote Against Atheism*, p. 9 (bk. 1, ch. 1, §1).

⁴² On the background to *An Antidote Against Atheism*, see Ward 2000, pp. 234–236, and Gabbey 1982, pp. 198–199.

⁴³ On More’s critique of Hobbes, see Mintz 1962, ch. 5.

⁴⁴ Hobbes 1994, p. 540 (Appendix, ch. 3, §§5–6). See Pasnau 2007, pp. 285–289.

if the human soul was itself corporeal, then it would surely be divisible and consequently destructible, with no real prospect of achieving everlasting heavenly happiness. As More saw it, all religion, all morality and all philosophy would be swept away. Consequently, in works from *The Immortality of the Soul* (1659) onwards, he was at pains to criticise Hobbes in detail.

Subsequently, when Spinoza came into view, More was inclined to read him in Hobbesian terms. Here was someone else who was prepared to say explicitly that God was extended, and that all material things existed in him. More's materialist reading of Spinoza might have been on considerably shakier ground than his materialist reading of Hobbes, and his accusation of atheism was equally dubious. Nevertheless, the accusation was made. Spinoza's *Tractatus theologico-politicus* seemed to be undermining religion, and his *Ethics* seemed to be undermining the more philosophical side of theology (not to mention ethics itself), and so More wrote the above-mentioned tracts against the two of them, published in his *Opera omnia* (vol. 2.1, 1679).

Still in the same general area, a considerably more nuanced case is that of Descartes. More's attitude to Descartes fluctuated over the course of his career.⁴⁵ On initially encountering his mechanical physics in the mid-1640s, he was extremely taken with it. Even in this early stage of his career, More's support for Cartesianism was by no means blind and uncritical (as their 1648–1649 correspondence demonstrates). But, broadly speaking, it was warm and solid. Later, however, he came to feel that Descartes' theories of thoroughly transcendent spirits and purely mechanical bodies were jointly excluding God from the world and undermining his very existence. He did not actually believe that Descartes himself was an atheist, even covertly, and he deliberately sought to clear him of such a charge in his *Epistola ad V.C.* (written around 1658, published 1662). He did, however, come to feel that Descartes' mechanical philosophy was not only inadequate in explaining natural phenomena, but that it lent itself much too readily to more deliberately atheistic uses. Consequently, More's later works came to be filled with firm denunciations and careful refutations of Descartes' principles.

The evolution of More's attitude to Descartes in particular, and to the issue of mechanism in general, can provide a framework for a wider examination of his philosophical influences—which will also lead us into an excursus into the earlier history of philosophy as More conceived it—and help to shed further light on his overall philosophical objectives.

Descartes did not feature in More's very first philosophical work, *Psychodia* [*Psuchōdia*] *Platonica* (1642). Indeed, More did not there display much awareness of (or, at any rate, interest in) contemporary philosophical discussions at all. The authors whom More named in the course of these philosophical poems were

⁴⁵ The most complete account of More's relationship to Descartes is Gabbey 1982. In addition, Anderson 1933, ch. 4; Lamprecht 1935; Laird 1937, pp. 243–246; Bréhier 1937, pp. 21–27; Koyré 1957, chs. 5–6; Saveson 1960; Webster 1969; Rogers 1985, pp. 291–294; Hall 1990b, ch. 8; Gabbey 1995; and Crocker 2003, pp. 66–70 (and *passim*), all have something to offer.

almost exclusively classical figures, including Hermes Trismegistus, Pythagoras, Democritus, Plato, Aristotle, Epicurus, Lucretius and Plotinus. He was especially keen on Plotinus and the Neoplatonists; or, to avoid that anachronistic term (which would have meant nothing to More), the Platonists. Within Platonism, other important influences on More's early thought included Proclus, Porphyry and Michael Psellus; and he was also very keen on the Platonising Fathers of the Church—Origen was a particular favourite. He did show some awareness of modern physics, particular in relation to issues surrounding the heliocentrist controversy: but, as far as philosophers in the narrower sense were concerned, the most up-to-date figure to have had a clear and significant influence on More's earliest poems seems to have been Marsilio Ficino (1433–1499), who had already been lying in his grave for nearly a century and a half, and who was, in any case, just another proponent in this same Platonic tradition.⁴⁶

But most prominent among these, and by far the greatest early influence on More, was Plotinus. We can actually date More's discovery of Plotinus fairly precisely. In a letter of 1673, he recalled his first acquisition of Plotinus's *Enneads*: 'I bought one when I was *Junior* Master for 16 shillings, and I think I was the first that had either the luck or courage to buy him.'⁴⁷ More graduated Master of Arts in 1639, and he began writing his philosophical poems in early 1640.⁴⁸ By the time of the publication of *Psychodia Platonica* in 1642, he had already thoroughly digested Plotinus's version of Platonism, and that first batch of poems was utterly riddled with Plotinian doctrines. Indeed, as More observed at the outset, 'My task is not to try / What's simply true. I onely do engage / My self to make a fit discovery, / Give some fair glimpse of Plato's hid Philosophy.'⁴⁹ On the other hand, these were no mere expositions of other people's views, hidden or otherwise. As More also remarked in a note on the canto wherein this observation is to be found, 'even in the midst of Platonisme... I cannot conceal from whence I am, viz. of Christ... To which *Plato* is a very good subservient Minister; whose Philosophy I singing here in a full heat; why may it not be free for me to break out into an higher strain, and under it to touch upon some points of Christianity?'⁵⁰ Moreover, in his later works, he made plenty of references back to these poems, either to indicate his continuing endorsement of views that he had expressed therein; or, where he had changed his mind, to indicate that he had indeed changed *his* mind. The poems were certainly inspired by the Platonists, but not uncritically so, and the views expressed can legitimately be regarded as those of More himself.

⁴⁶ On the influence of Ficino's *Platonic Theology* on More's philosophical poems, see Staudenbaur 1968 and Jacob 1985.

⁴⁷ *Letters on Several Subjects*, p. 27 (More to Edmund Elys, 27 December 1673).

⁴⁸ See the individual title-page for *Psychozoia* in *Psychodia Platonica* (1642 edition); along with *Opera omnia*, vol. 2.1, p. viii (*Praefatio generalissima*, §11).

⁴⁹ *The Complete Poems*, p. 13a (*Psychozoia*, cant. 1, st. 2).

⁵⁰ *The Complete Poems*, p. 10b (To the Reader, upon the first Canto of *Psychozoia*).

In his next publication, *Democritus Platonissans* (1646), the situation was quite different. More did still continue to name and to be heavily influenced by (or, as the case may be, to react against) all the same old figures, but both his awareness of and his interest in the groundbreaking new work that was being done in his own time had now become greatly increased as a result of his discovery of Descartes.⁵¹ Descartes' *Principia philosophiae* of 1644 seems to have been the first of his works that More noticed; and, although he certainly did subsequently read Descartes' other works and those of his followers, the *Principles of Philosophy* always remained, from his point of view, the key text of Cartesianism. And yet, as far as More was concerned, Descartes' skill was almost entirely limited to his treatment of the physical world, and More never showed much sympathy for the *Meditations* or for Descartes' more strictly metaphysical philosophy in general. Ward reported: '*Des-Cartes* his *Metaphysicks* I could never perceive that he much admird; but his *Physicks* he did exceedingly.'⁵² And More himself confirmed this impression: 'I believe his excellence is on account of his other writings rather than of his metaphysical *Meditations*, which I certainly could in no way admire, even when I enjoyed them extremely wonderfully along with the rest of his writings. For, although he is seen to suppose with me that incorporeal substance is the legitimate and adequate object of metaphysics, I could however never approve of his demonstrations of their existence or his explanations of their nature, if you would except the first argument of the divine existence.'⁵³

But then, More simply had no need for Descartes' metaphysics. He had already discovered to his mind an unsurpassable metaphysical treatment of the spiritual world in the works of Plotinus and the other Platonists. However, such a spiritual philosophy was only ever going to provide half the story, and it needed to be augmented with an account of physical phenomena. The trouble with the Platonists was that, while they might have been extremely capable on questions pertaining to God himself and to created spirits, they tended to gloss over issues pertaining to the physical constitution of the universe, providing a much less satisfactory treatment of those things if, indeed, they bothered to offer one at all. In Descartes' mechanical philosophy, More felt that he had found an exemplary physical system. Even in the first flush of his engagement with Cartesianism, he already realised that certain

⁵¹ Also Lord Herbert of Cherbury (1583–1648). *Democritus Platonissans* is introduced by a pair of passages drawn from Descartes' *Principles of Philosophy* (pt. 3, §§1–2) and Herbert's *De causis errorum*. See p. 58 below.

⁵² Ward 2000, p. 339.

⁵³ *Enchiridion metaphysicum*, vol. 1, pp. IV–V (Preface to the Reader, §3). It seems likely that the 'first argument' for the existence of God, for which More here expresses approval, refers to the Ontological Argument. More himself endorsed this argument elsewhere in his works, whereas he never displayed any real approval for Descartes' other main argument, from the presence in our minds of an idea with infinite objective reality. Although the reference in this passage is to the *Meditations*, where the Ontological Argument comes after that other one (in the Fifth and Third *Meditations* respectively), it does come first in the alternative presentation that Descartes provided in the *Principles of Philosophy* (pt. 1, §§14 and 18 respectively).

details were going to need to be corrected, on physical as well as on metaphysical issues. But, as far as the general thrust of Descartes' approach was concerned, More was not only greatly enamoured with it in itself, but crucially he felt that it was consistent with and could be joined to the Platonists' account of the nature of the spiritual realm and of God himself.

However, More still did not feel that he was actually blending *new* ideas together with the more entrenched wisdom of the Platonists. He felt rather that *both* of these philosophical systems, the Cartesian account of the physical realm as well as the Plotinian account of the spiritual, were continuations of a single tradition that was considerably more ancient than either one. Over on the more theological side of things, More was very keen to defend himself from the charge that he was introducing novelties into religion. He insisted that, on the contrary, it was the Catholics who had most egregiously added to scripture and who, under the pretence of explicating the doctrines of the Fathers of the Church, had actually abandoned them. The Christian Church, More argued, had been free from idolatry and Antichristianism for about the first four hundred years after Christ, but it had then become corrupted when it was established at Rome, initiating a 1260 year reign of Antichrist.⁵⁴ We may smile now at the lucky coincidence that led to More's just happening to be alive during the very period when the glorious Millennium could be expected: but we should nevertheless respect the fact that he did sincerely believe that the restoration of true Christianity to the world was imminent, and that, through his own works, he could even assist in bringing about its final triumph. In order to achieve true Christianity, it was necessary first to reject the dogmas of the Church of Rome. But then, in casting about for a satisfactory replacement, one should not presume to replace the Roman Catholic novelties with still greater novelties, but should instead endeavour to revive the most ancient wisdom of all—a wisdom of which both Plotinus and Descartes were showing the vestigial traces.

One of the key texts of this most ancient wisdom was, unsurprisingly, the Bible itself. More certainly believed that the Bible could be trusted to deliver some basic truths in religion and morality: but he also felt that there were limits to its usefulness. First, some of its teachings were deeply obscure, and hidden under a symbolic veil. In those cases, More felt that, after a lot of work, they could nevertheless be extracted and made more perspicuous. In his *Synopsis Prophetica*, for instance, he began by providing a taxonomy of the various different types of obscurity that were employed in the Apocalypse, setting out an alphabet of prophetic symbols with their 'real' meanings explained, and listing some general rules for interpreting prophecy. With that groundwork done, he could then go on to interpret the text in detail, with (he felt) so much success that he could finally declare: 'And truly I find nothing in the *Apocalyps*, though the Style seems *mysterious* and *Aenigmatical*, but what is very rational, and look upon it as the most *Faithful* and *Philosophical* Writing that ever was penned.'⁵⁵

⁵⁴ *Synopsis Prophetica*, pp. 634–635 (bk. 2, ch. 6, §§1–5).

⁵⁵ *Synopsis Prophetica*, p. 713 (bk. 2, ch. 23, §5).

Elsewhere, however, no amount of interpretation would be able to elicit all that might be desired from the Bible, for it simply remained silent on certain key philosophical issues. It discussed 'not the *Mundus Philosophorum*, but the *Mundus Plebiorum*'.⁵⁶ It addressed the ordinary man in his own terms, and, although it was to be trusted on matters of theology, morality and history, there was never any intention that it should be regarded as a textbook of metaphysics, physics or mathematics. As More wrote, in reference to such texts as Genesis 1:16 and 1 Kings 7:23 or 2 Chronicles 4:2: 'Verily I shall believe the *Scripture* to be the *Measure of Philosophy*, when it hath been *demonstrated* unto me, That the *Moon* is bigger than the *Stars*, and *three Diameters* equal to the *Circumference* of a *Circle*.'⁵⁷ On such points as these, the prophets were speaking 'not according to the Astronomically truth of the thing, but according to sense and appearance', and, again, were speaking 'according to the common use and opinion of Men, and not according to the subtilty of *Archimedes* his demonstration'.⁵⁸

Nevertheless, More did still believe that these inspired prophets did *know* such truths, even if it did not always suit their own rhetorical purposes to mention them in their religious texts. More was a firm believer in *prisca sapientia/prisca theologia*, an oral, cabalistical tradition of esoteric teachings among the ancient prophets—a notion that was already well-entrenched long before More took it up.⁵⁹ The ultimate originator of this supposed chain of ancient wisdom was, in many quarters, taken to have been the legendary Egyptian philosopher-king, Hermes Trismegistus. Hermes was identified, on the one hand, with Theuth who (as no less an authority than Plato himself informs us) 'invented number and calculation, geometry and astronomy, not to speak of draughts and dice, and above all writing'.⁶⁰ If Hermes Trismegistus invented writing itself, then his book, the *Poemander*, could be regarded as the most

⁵⁶ *The Apology of Dr. Henry More*, p. 484, (ch. 1, §6). See also More's comment to Baxter in *Two Choice and Useful Treatises*, second part, pp. 187–188 (*Annotations upon the Discourse of Truth, The Digression*).

⁵⁷ *A Collection of Aphorisms*, p. 8 (part 1, aphorism 27). The dating of these aphorisms is uncertain. Even at the time of their posthumous publication, the editor, in his (unpaginated) epistle to the reader, found himself unable to say on what occasion they had been written. But there is a large amount of internal evidence that they were probably written in the 1640s, or, at the latest, the early 1650s. The parallel here between aphorism 27 and More's 1651 remarks to Vaughan (see the next note immediately below) provides just one example of resemblances between these remarks and More's published works of this period. In my subsequent references to aphorisms from this little book, I shall have occasion to point out a couple of other such parallels: see p. 83 n. 33 and p. 164 n. 94. In addition, Gabbey 1992, pp. 115–121 (at 118–119), points out another one, comparing a metaphorical reference to 'neurospasts'/puppets at p. 13 (part 2, aphorism 27) both with a discussion in More's 1642 poems (cf. *The Complete Poems*, pp. 48b–49b: *Psychathanasia*, bk. 1, cant. 2, sts. 27–37, especially st. 34) and with Cudworth's *A Sermon Preached before the House of Commons* of 31 March 1647 (cf. Cudworth 1743, separately paginated second part, p. 64).

⁵⁸ *The Second Lash of Alazonomastix*, pp. 108–113, here at pp. 112 and 111 respectively (upon page 51, line 25, observation 12).

⁵⁹ See Yates 1991, passim: see '*Prisca theologia*' in the index.

⁶⁰ Plato 1963, p. 520 (*Phaedrus*, 274d).

ancient text in existence, and this work—which contains various striking ‘anticipations’ of later Christian doctrines—had a significant influence on the development of Renaissance philosophical ideas. But then, on the other hand, there were also several attempts to identify Hermes directly with certain specific Biblical prophets, in order further to validate his philosophical authority by giving it a proper footing in divine inspiration. Perhaps Hermes/Theuth was one and the same man as Enoch, the sixth descendent after Adam, who was said to have walked with God (Genesis 5:22, 24); or maybe Joseph, who was, after all, supposed to have been made governor of Egypt (Genesis 41:40–43); or Moses, who was supposed to have been adopted into the Egyptian royal family (Exodus 2:10).⁶¹ Now, in 1614, the philologist, Isaac Casaubon, showed that the *Poemander* and other Hermetic works were actually of a much later origin, postdating the initial development of the Christian doctrines that they were supposedly anticipating. But More was just one among a great many people who continued to feel, even post-Casaubon, that, ‘though there may be suspected some fraud and corruption in several passages in that Book, in reference to the interest of Christianity’, it could nevertheless, on other points, be trusted as a genuine and accurate presentation of the thought of an extremely ancient Egypt.⁶² To name but one particularly noteworthy example, Ralph Cudworth shared this attitude with his colleague.⁶³

But, assuming that Hermes Trismegistus was not in fact the same person as Moses, from More’s point of view it was the latter who really got things going in philosophy. Besides giving the Law to the Israelites, and doing all of the other things recorded in the Pentateuch, More’s Moses was also a very sophisticated philosopher: ‘in the expounding of *Moses*,’ he wrote, ‘I think I may lay down this for a safe Principle, That there is no considerable Truth in *Nature* or *Divinity* that *Moses* was ignorant of.’⁶⁴ Moses may not have written his more abstruse doctrines down—not explicitly, at any rate—but he had a philosophical cabbala of secret insights, which he preached orally to his most intellectual acolytes.

Thus, for instance, in theology More believed that Moses had a proper grip on the doctrine of the Holy Trinity, many centuries prior to the establishment of this as an explicit religious tenet in the time of Christ.⁶⁵ More was keen to clear the Trinity of

⁶¹ On the identification with Enoch, see Baldwin 1967, pp. 47–49. On Joseph, see Gale 1671, pp. 12–14; and also More’s own discussion of this suggestion, in *Tetractys Anti-Astrologica*, pp. 22–23 (annotations upon ch. 14, §5). On Moses, see Ficino 2001–2006, vol. 6, p. 83 (bk. 18, ch. 1), together with p. 303 n. 16; though also compare Ficino’s preface to his edition of the *Poemander*, as quoted in Copenhaver 1992, p. xlviii; and see Hankins 1990, vol. 2, pp. 459–464 (appendix 17).

⁶² *The Immortality of the Soul*, p. 115 (bk. 2, ch. 12, §10).

⁶³ Cudworth 1743, pp. 319–334/Cudworth 1845, vol. 1, pp. 540–565. More generally, see Yates 1991, ch. 21. Also, on the position of Isaac Newton in relation to the Hermetica, see McGuire 1977; not to mention McGuire and Rattansi 1966, and Casini 1984.

⁶⁴ *Conjectura Cabbalistica*, p. 72 (*The Defence of the Philosophick Cabbala*, upon ch. 1, vers. 1); see also p. iii (Preface, §4).

⁶⁵ *Conjectura Cabbalistica*, p. 73 (*The Defence of the Philosophick Cabbala*, upon ch. 1, vers. 1).

the charge that it was a pagan invention, borrowed by the Fathers of the Church from the Platonic or Pythagorean school, which might seem to undermine its claim to a rightful place in true Christianity.⁶⁶ But the response to this charge was simple. Any similarities between the Christian and the pagan Trinities were not to be explained by the borrowing of the former from the latter. Rather, the pagan Trinity had itself been borrowed from a still earlier stage in the Judeo-Christian tradition.⁶⁷

Second, in metaphysics, More believed that Moses endorsed the doctrine of the pre-existence of the soul⁶⁸—a great favourite of his own, as we will see in our final chapter below.

Third, in cosmology, he believed that Moses had endorsed the doctrine of the motion of the Earth around the Sun, another doctrine to which he pledged his own firm support. It was commonplace at the time for the Copernican system to be associated with the ancient Pythagoreans, and More himself was happy to describe it indifferently as the 'Copernican or Pythagorean' hypothesis. That latter association was backed up by the considerable authority of Aristotle,⁶⁹ and it was endorsed by most of the modern heliocentrists too. As for going further, however, and projecting heliocentrism onto Moses himself, More might have been on considerably shakier grounds, and he had to concede that Moses did not openly write in this way in the Pentateuch. But he argued that certain remarks could be construed as hints that this was his real opinion. More's *Conjectura Cabbalistica* was an attempt to elicit philosophical principles from mystical clues contained within the text of the first three chapters of Genesis. While it ultimately had to remain somewhat conjectural, More did nevertheless feel that such a project could be carried out with a reasonable degree of reliability. But in any case, he said, 'that *the Motion of the Earth* has been lost, and appears not in the remains of the Jewish *Cabbala*, this can be no argument against its having once been part thereof.'⁷⁰

Fourth, in physics, More believed that Moses was an atomist and, indeed, that he was the first inventor of atomism. This notion was based on some rather flimsy evidence (out of Strabo, Iamblichus and others) that atomism had been devised by a Sidonian or Phoenician by the name of 'Mochus' or 'Moschus', together with the speculation—guided by the belief that whoever had first managed to get a grip on the invisible, microscopic essence of corporeal matter must surely have been someone

⁶⁶ *An Explanation of the Grand Mystery of Godliness*, pp. 5–7 (bk. 1, ch. 4, §§1–7).

⁶⁷ *Conjectura Cabbalistica*, p. 73 (*The Defence of the Philosophick Cabbala*, ch. 1, upon ch. 1, vers. 1). This was also an issue of great concern to Cudworth, who discussed it ad nauseam in the colossal fourth chapter of *The True Intellectual System of the Universe*. (The chapter itself drags on for 450 quarto pages, accounting for half of the book; and this topic takes up a considerable portion of it). See Cudworth 1743, pp. 546–632/Cudworth 1845, vol. 2, p. 311–486.

⁶⁸ *Conjectura Cabbalistica*, pp. 156–157 (*Appendix to the Defence of the Philosophick Cabbala*, ch. 6, §§1–2).

⁶⁹ Aristotle 1984, vol. 1, pp. 482–483 (*On the Heavens*, bk. 2, ch. 13; 293a15–293b16).

⁷⁰ *Conjectura Cabbalistica*, p. 157 (*Appendix to the Defence of the Philosophick Cabbala*, ch. 6, §§2–3, here §2).

very wise indeed—that this name ‘Mochus’ was probably just a corruption of ‘Moses’, and that they were one and the same man.⁷¹ This was, indeed, a popular view in More’s time (and earlier, throughout the Renaissance). Again, one might cite Cudworth as another notable believer in the Mosaic origins of the atomic theory.⁷²

After Moses, and until the time of Christ, the most important new work in philosophy did then come to be carried out within pagan circles, both in the written texts that survived into More’s day and our own, and also in the continuation of that esoteric, oral tradition. Crucially, though, there was still a direct lineage that connected this work back to that of Moses, so that the divine inspiration of the latter could, at least partially, provide a solid foundation for the former. The next major figure in the chain was Pythagoras. More believed that Pythagoras may very well have been a Jew himself and that, at any rate, he certainly studied the Mosaic philosophy under the Jewish doctors at Sidon, and fully embraced the whole range of Moses’ (supposed) teachings, both physical and spiritual. Without hesitation, More’s Pythagoras accepted the Trinity, the pre-existence of the soul, the motion of the Earth and the atomic theory. Pythagoras was then, in turn, broadly followed in such opinions—particularly those on the spiritual side, though now with some uncertainty and confusion on the physical side—by Plato.⁷³ After all, as Numenius famously asked: what was Plato, but Moses speaking Attic Greek?⁷⁴ After Plato, things developed still further down the same path with the work of Aristotle. Although More never showed any special fondness for Aristotle, he did at least concede that, notwithstanding his errors, Aristotle would often argue ‘like an Orthodox Scholar of his excellent Master *Plato*; to whose footsteps the closer he keeps, the less he ever wanders from the Truth.’⁷⁵

Increasingly, though, these twin philosophies of matter and spirit, which had formerly been united within a single system under Moses and Pythagoras, were beginning to come apart. Atomism fell into the hands first of Leucippus and Democritus, and then of the Epicureans, while the Mosaic conception of immaterial

⁷¹ *Conjectura Cabbalistica*, pp. 110–114 (*Appendix to the Defence of the Philosophick Cabbala*, ch. 1, §§3–8).

⁷² Cudworth 1743, pp. 12–13/Cudworth 1845, vol. 1, pp. 20–21; Cudworth 1996, pp. 38–39. The latter, together with its editorial footnotes, identifies the various classical sources of this notion. More generally, see Sailor 1964.

⁷³ *Conjectura Cabbalistica*, pp. iii–iv, 37–39, 110–113, 156–157 (Preface, §4; Preface to *The Defence of the Threefold Cabbala*, §§2–4; *Appendix to the Defence of the Philosophick Cabbala*, ch. 1, §§2–8; ch. 6, §§1–4); *Refutation of Spinoza*, p. 107; *The Complete Poems*, p. 80a (*Psychathanasia*, bk. 3, cant. 3, st. 43).

⁷⁴ More himself cites this line in *Conjectura Cabbalistica*, pp. iii, 112 (Preface, §4; *Appendix to the Defence of the Philosophick Cabbala*, ch. 1, §5).

⁷⁵ *The Immortality of the Soul*, p. 117 (bk. 2, ch. 12, §15). Thomas Vaughan viewed More as an Aristotelian, probably largely on account of the fact that, in their exchange, More was keen to defend Aristotle from Vaughan’s criticisms: but this did not mean that More was positively committed to any form of Aristotelianism, but merely that he felt that Aristotle deserved vastly more respect than Vaughan was willing to give him—and, indeed, vastly more than Vaughan himself deserved.

spirits, finite and infinite, became the centrepiece of the Platonic tradition. More very much preferred the latter to the former, and he found the materialist irreligion of the Epicureans to be utterly repugnant. The Epicureans had resolved *everything* into atoms and void, thereby ruling out the very possibility of immaterial spirits and of any God worthy of the name. More certainly could not accept that. However, particularly once he had discovered Cartesian physics—not strictly atomistic, perhaps, but definitely corpuscularian—and recognised just how successful that was, he came to a grudging acknowledgement of the value of this earlier physical research in the same general area. As long as the proper domain of atomist physics was properly circumscribed, the Democritic or Epicurean treatment of it did actually have a lot to offer.

More's attitude was that, notwithstanding the use to which mechanical or atomist physics had perennially been put in the name of a materialist atheism, or at least of something very close to it, there was nothing truly inherent to such a physical system that should render it incompatible with a proper (i.e. Platonist) account of the spiritual realm. As we have seen, More felt that these theories had once been united in a single, all-encompassing system, divinely revealed to Moses himself. After so protracted a divorce, it was high time that they should be reunited. Far from their being inherently opposed to one another, these two branches, 'the one travelling in the lower Road of *Democritism*, amidst the thick dust of Atoms and flying particles of *Matter*; the other tracing it over the high and airy Hills of *Platonism*, in that more thin and subtil Region of *Immateriality*, meet together notwithstanding at last (and certainly not without a Providence) at the same *Goal*, namely at the Entrance of the holy Bible.'⁷⁶ It was when More discovered Descartes' philosophy of nature that he began to realise that such a synthesis of these two branches really had become a genuine, living possibility. As he put it: 'the *Cartesian* Philosophy being in a manner the same with that of *Democritus*; and that of *Democritus* the same with the Physiological part of *Pythagoras* his Philosophy; and *Pythagoras* his Philosophy, the same with the *Sidonian*; as also the *Sidonian*, with the *Mosaical*; it will necessarily follow, that the *Mosaical* Philosophy, in the Physiological part thereof, is the same with the *Cartesian*.'⁷⁷

It was for this reason that More became as exuberant as he did in his praise for Descartes. The rapture he felt at the perspicacity, the breadth and the success of Descartes' mechanical account of physical phenomena was, at least for a while, almost boundless. The term 'mechanical' had been absent from *Psychodia Platonica* in 1642, but, from *Democritus Platonissans* (1646) onwards, it became a buzz-word for More, so thoroughly enamoured was he with Descartes' skill in that field.

⁷⁶ *A Collection of Several Philosophical Writings*, The Preface General, p. xii (§11). In place of the word 'Goal', the text here actually gives the word 'Gaol'. But this is obviously a misprint, and the 1662 edition has 'Goale'. More certainly did not regard the Bible as a gaol!

⁷⁷ *Conjectura Cabbalistica*, p. 114 (*Appendix to the Defence of the Philosophick Cabbala*, ch. 1, §8). Gérauld de Cordemoy also believed that the Cartesian system was, to all intents and purposes, the same as the Mosaical, and he claimed that it seemed that Descartes had only become a philosopher by reading Moses. See Ablondi 2005, pp. 112–114.

He gushed to Thomas Vaughan that Descartes had ‘the most admirable Philosophy, that ever yet appeared in these *European* parts since *Noahs* flood’.⁷⁸ Indeed, and significantly, he was even prepared to go so far as to suggest that Descartes’ knowledge of nature might itself have had its basis in a personal inspiration directly from God himself.⁷⁹ Notwithstanding More’s attacks on the enthusiasts’ melancholy ‘inspirations’—the unreliability of which was demonstrated by their authors’ extravagant exuberance, in contrast to Descartes’ own sobriety and modesty, not even acknowledging his own inspiration as such—More did not believe that there was anything impossible about God’s electing someone to receive a supernatural implantation of knowledge into his mind. This was, after all, precisely what he had done with the first great author of this same system, Moses himself; and, even if he had long since ceased to behave in this way, there was nothing to prevent him from starting up again if it suited him to do so. And it might well have so suited him in the middle of the seventeenth century, if the Millennium was as imminent as More believed it was, and God was making the requisite preparations to usher it in. Among the conditions that were necessary before the true Church could finally vanquish Antichrist, it was rather important that it should get its doctrines right, and this should include an accurate system of natural philosophy along with the rest. More viewed Descartes’ role as being one of reviving and rehabilitating the physical branch of the ancient Mosaic cabbala. And he viewed his own role as being one of reuniting this branch with its proper spiritual partner. In one extraordinary remark, More even drew a parallel between himself and Moses, as he indicated the conception he had of himself as the great restorer of the Mosaic philosophy to the world. Recalling the criticisms that some had levelled against him for the extravagantly satirical tone he had adopted in his relatively early writings against Thomas Vaughan, prior to composing his more serious philosophical prose works, More wrote: ‘I did easily bear with their ignorance, deeming it in my silent thoughts in some sort parallel to that of the peevish Hebrew who reproached *Moses* for slaying of the *Egyptian*, not knowing that it was a prelude to his delivering of his whole nation from the bondage of *Aegypt*.’⁸⁰ On accomplishing his revolutionary task of restoring Moses’ complete system of philosophy to the world, More believed that he would thereby have provided the world with an absolutely unassailable system that would not only constitute a thoroughly true account of the nature of the entire universe, but would, in so doing, also prove abundantly useful to the Church, for promoting true Christianity and defending it against assaults from every possible side, delivering mankind from the bondage of Antichristianism, enthusiasm and atheism with one single blow.

⁷⁸ *Observations upon Anthroposophia Theomagica, and Anima Magica Abscondita*, p. 88 (upon *Anima Magica Abscondita*, pag. 55, lin. 13). ‘Sure then Aristotel was before the Flood’, sniffed Vaughan in response. Vaughan 1650b, p. 37 (observation 3).

⁷⁹ *Conjectura Cabbalistica*, p. 114 (*Appendix to the Defence of the Philosophick Cabbala*, ch. 1, §9). More did not presume to offer any explanation of why God would have chosen a Catholic to receive such an inspiration.

⁸⁰ *An Explanation of the Grand Mystery of Godliness* (1660 edition), p. vi (To the Reader, §5). The reference is to Exodus 2:11–14.

And thus, almost as soon as More had begun his philosophical career, his discovery of Descartes caused his philosophy to shift from a fairly faithful Christian Platonism, wherein physical concerns took a back seat to spiritual ones, to a synthesis of such an account of spiritual reality with an approximately Cartesian account of the physical world. The extent of More's mechanism was always somewhat narrower than that of Descartes' own, for not only did he exclude human actions from its domain (as Descartes himself also did), but he also excluded animal behaviour, vegetative activity, and even the activity of the stars in the heavens and certain other ostensibly inanimate bodies. However, he was at least prepared to allow that *most* physical phenomena could be explained by mechanical principles alone.

But then he went and changed his mind again. In Chaps. 8 and 9, we will examine the development of More's views in this area in some detail. Suffice it for now to say that, by the 1660s, he had come to the view that, as a matter of fact, the mechanical philosophy could explain virtually nothing at all. Naturally, then, its principal modern author became a target for criticism. The criticisms of Descartes in More's later writings perhaps never achieved the same level of exuberance as the encomiums for him in his earlier writings had done. Descartes certainly never received the kind of vitriolic invective that More (as, admittedly, a considerably younger man) had hurled at Thomas Vaughan. But these criticisms were forceful ones, even so.

More ultimately came to the view that Descartes' 'gross Extravangancies (such as making Brutes mere *Machina's*, the making every Extension really the same with Matter, his averring all the *Phaenomena* of the World to arise from mere Mechanical causes) will be more stared upon and hooted at by impartial Posterity, than any other pieces of wit he may have light on can be admired or applauded.'⁸¹ Descartes' equation of matter with extension immediately generated the view that immaterial spirits could not be extended; which, for the Cartesians, meant that they did not exist in any place; which apparently amounted to the view that they existed nowhere—the view that More dubbed 'nullibism'. But to say that spirits, and God in particular, did not exist anywhere struck More as tantamount to saying simply that they did not exist. As for mechanism itself, as More wrote elsewhere, 'a greater wound or injury cannot be inflicted to the most essential parts of religion than the presumption of a possible resolution of all phenomena into purely mechanical causes (not even the bodies of plants or animals excepted). Indeed, as if this corporeal world, on condition only that so much motion be supposed to be imposed on matter as is in fact found in it till now, can generate itself. Which, however, is the Cartesian hypothesis.'⁸² To say that natural phenomena could be resolved into purely mechanical causes was equivalent to saying that they did not require any immaterial causes. This would therefore undermine any theoretical need for such spirits to exist at all, which would

⁸¹ *Divine Dialogues*, p. 185 (dial. 3, §3). Although the remark is placed in the mouth of a character (namely, Philotheus) within a dialogue, it does seem to represent More's mature attitude accurately enough.

⁸² *Enchiridion metaphysicum*, vol. 1, p. V (Preface to the Reader, §4).

further undermine confidence in that existence, thereby injuring the interests of religion. Since the interests of religion were always those of More himself, he thus came to the view that it was incumbent on him to oppose Cartesianism, not only in its details (as he had always done), but also in its most fundamental principles. 'For, indeed, as matters now stand, if the Cartesian philosophy, both physical and metaphysical, were allowed to abide, I certainly fear to say in what a proclivity and in how dangerous a precipitancy towards atheism the souls of mortals would be placed, as no sufficiently firm check occurs in its ways of philosophising which prohibits them from lapsing into this insane disease.'⁸³ Much as Descartes himself might not personally have been an atheist, this was the direction that his philosophy was going in. Mechanism led to materialism, and materialism was tantamount to atheism. This drift needed to be halted at its source.

The key, for More, had always been to find the correct *balance* between his theories of physical and spiritual reality. On discovering Descartes in the mid-1640s, he had decided that the physical side had previously been wanting in his own philosophy, and so he sought to provide a proper counterbalance for his spiritualism. During the 1650s and early-1660s, he came to decide that even just to strike an equal balance between the two was already to place an undue emphasis on the physical, and so the spiritual side began to dominate once more. According to More's new conception of matter, far from being sufficient to account for physical phenomena by itself, matter's nature actually revealed, by dint of its very insufficiency, the absolutely unavoidable need for a distinct spiritual realm also to be postulated. However, what we do not get in More's later writings is simply a revival of the more or less faithful Plotinian Platonism that had characterised his earliest poems, those written prior to his discovery of Cartesianism. Too much water had passed under the bridge since then. More's engagement with Cartesianism, and with all of the other systems he examined over the course of his long career, had led him down new paths of enquiry, and prompted him to come up with ideas that were all his own. Whereas the ideas of the earliest poems could be traced directly back to Plotinus, and the immediately subsequent works offered a modified synthesis of Platonism and Cartesianism, the two principal works of More's mature period (*Divine Dialogues* and *Enchiridion metaphysicum*) present a genuinely novel system of his own devising. (Indeed, it is rather telling that Cuphophon, the character in the *Dialogues* who often most closely represents More's own earlier Platonist-Cartesian position—a 'zealous, but Aiery-minded, *Platonist* and *Cartesian*, or *Mechanist*', as More now described him⁸⁴—is presented as *losing* most of his arguments). The emphasis in these late works was still in the same place, on an immaterial realm of spirits and of God in particular, but the details were quite different.

⁸³ *Enchiridion metaphysicum*, vol. 1, pp. VII–VIII (Preface to the Reader, §6).

⁸⁴ *Divine Dialogues*, p. xxxii (cast of characters).

3 Epistemology and Rhetoric

One of those branches of More's philosophy which (focusing as I shall be on his metaphysics) I am not going to examine in detail is his epistemology. But then, like most other English philosophers during this period—in contrast, perhaps, to the period that followed Locke's *Essay concerning Human Understanding*—epistemological concerns were not uppermost in More's mind anyway. However, like them, he did have at least something to say about such matters, and it would be worth saying a few words about his position, with a view to painting a methodological backdrop against which his more metaphysical views might be better understood.

Unlike his metaphysics, More's epistemology does seem to have remained fairly constant throughout his career. He used the word 'reason' as a blanket term to cover all of the mind's various paths to knowledge, and he identified three such paths. In *Enthusiasmus Triumphatus*, the three 'known Faculties of the Soul' were enumerated as 'the *Common notions* that all men in their wits agree upon, or the *Evidence of outward Sense*, or else a *clear and distinct Deduction* from these'.⁸⁵ Again, in *The Immortality of the Soul*, More listed the same three cognitive faculties, now also adding to the external sense its 'faithful Register', namely memory.⁸⁶

More never sought to diminish the value and importance of the senses as reliable guides to truth, in the way one might have expected a Neoplatonist to do. Admittedly, they were never going to reveal the very highest things to us: but, within their own proper domain, their testimony was as unimpeachable as anyone could seriously desire. That is not to say that our senses can never lead us into error: we all know perfectly well that they can, as in cases of optical illusions and such like. We look at a tower in the distance, and it appears to be round, whereas in fact it is square.⁸⁷ But what is the proper way to correct such errors? It is to use these very same senses to correct *themselves*. Nothing else is going to correct them for us. We cannot establish that the tower is square just by closing our eyes and thinking really hard about it: we need to get closer, and then *look* again. Cartesian concerns about the possibility of global error, and the possibility that the corporeal world might not actually exist at all, or might exist but in some radically unfamiliar way, simply did not trouble More at all. He did occasionally engage with and borrow from Descartes' *Meditations* (even though he always preferred his *Principles*): and yet the one portion of it that seems to have left him entirely cold is the First Meditation. As long as the conditions are not obviously such as would make the senses unreliable—too great a distance, poor lighting, etc.—More felt that it would be quite literally *irrational* not to trust their evidence regarding the existence and the qualities of the

⁸⁵ *Enthusiasmus Triumphatus*, p. 38 (§54).

⁸⁶ *The Immortality of the Soul*, pp. 3–4 (bk. 1, ch. 2, axiome 3 and §4).

⁸⁷ The example is from Descartes' Sixth Meditation, CSM 2:53/AT 7:76.

bodies in one's immediate environment. 'But as for perfect *Scepticism*,' he wrote, 'it is a disease incurable, and a thing rather to be pitied or laugh'd at, than seriously opposed. For when a man is so fugitive and unsettled, that he will not stand to the verdict of his own Faculties, one can no more fasten any thing upon him, than he can write in the water, or tie knots of the wind.'⁸⁸

Now, Richard Popkin has made much of remarks like this one about 'a disease incurable', and the other occasional truisms in More's works to the effect that one cannot doubt one's own rational faculties and yet at the same time use those same rational faculties to extricate oneself from such doubt. He has identified these remarks as vestiges of an early '*crise pyrrhonienne*' from which More never managed to extricate himself.⁸⁹ But Alan Gabbey is sceptical of Popkin's ascriptions of 'super-scepticism' and 'ultimate scepticism' to More,⁹⁰ and he has denied that epistemological scepticism was really a serious concern for More at all.⁹¹ In this debate, I side firmly with Gabbey. As far as More was concerned, the three branches of reason—sensation being one of these—were just fine as they were. It was, indeed, a fundamental axiom of More's epistemological system that '[w]hatever is clear to any one of these Three Faculties is to be held undoubtedly true, the other having nothing to evidence to the contrary.'⁹²

Within their own proper domain, then, the senses were perfectly autonomous, and there was no need for any innate ideas to assist in purely sensible matters. Descartes had suggested that, given that there was no similarity between, on the one hand, the ideas of pain, colours, sounds and the like, and, on the other hand, the corporeal motions that stimulated them in sensation, these ideas had to be innate within our minds and were merely prompted out into conscious actuality on the occasion of those corporeal motions.⁹³ More was not persuaded. 'To all sensitive Objects the Soul is an *Abrasa Tabula*', he straightforwardly declared.⁹⁴ However, no matter how reliable and independent the senses might have been within their own proper domain, their domain was still fairly narrow. More was satisfied that a man's thoughts could reach very much further than the senses would allow by themselves, and that he could intellectually penetrate into the eternal truths and the immutable essences of things. Notwithstanding that 'tabula rasa' comment, More certainly could not be described as an empiricist. The very same remark immediately continues: 'but for *Moral* and *Intellectual* Principles, their Idea's or Notions are essential to the Soul'.

⁸⁸ *The Immortality of the Soul*, pp. 2–3 (bk. 1, ch. 2, §1).

⁸⁹ Popkin 1987, pp. 170–174; Popkin 1990, pp. 98–99, 101; Popkin 2003, pp. 176–180, and also see 210–211, 215, and 357 n. 8; also Coudert 1990, pp. 126–128.

⁹⁰ Popkin uses these expressions in Popkin 1990 p. 99.

⁹¹ Gabbey 1993, pp. 81–90.

⁹² *The Immortality of the Soul*, p. 4 (bk. 1, ch. 2, axiome 5).

⁹³ CSM 1:304/AT 8B:359 ('Comments on a Certain Broadsheet', on article 13).

⁹⁴ *Two Choice and Useful Treatises*, second part, p. 19 (*Annotations upon Lux Orientalis*, upon ch. 3, pag. 17).

This second class of principles did not overlap with the class of sensible truths: it was something additional, something that the mind could grasp by very different means. More felt that every man's mind was imprinted with certain innate ideas, essential to the soul; and that, in virtue of these, there were certain general principles to which everyone, the world over, would assent.⁹⁵ The latter were the common notions. They were 'true at first sight to all men in their wits upon a clear perception of the Terms, without any further discourse or reasoning'.⁹⁶ Whatever was not consonant with these, as More proceeded to declare, was mere fancy. The very universality of these common notions was itself a testament to their truth, in stark contrast to the exclusivity of the enthusiasts' supposed personal revelations. The fact that the latter could never be tested by an impartial arbiter itself constituted a reason to distrust them.

More did not, of course, believe that innate ideas were explicitly conscious in the mind from birth. He compared them to the latent skill of a sleeping musician. There would be no actual representation of anything musical in his mind: but, on his being prompted with only the most 'slight and slender intimation'—the first two or three words of a song—he would spontaneously proceed to sing the remainder. Likewise, some kind of stimulus would be required to stir up the innate knowledge that had formerly been purely latent within a man's mind. But, when it was thus roused into consciousness, this innate knowledge would provide his mind with 'a more full and clear conception of what was but imperfectly hinted to her from external Occasions'.⁹⁷ More described these innate ideas as the 'natural Furniture of humane Understanding', and he placed them at the foundation of our moral, mathematical and logical knowledge. Among these notions, he included such things as: '*Cause, Effect, Whole and Part, Like and Unlike, and the rest. So Equality and Inequality, logos and analogia, Proportion and Analogy, Symmetry and Asymmetry, and such like: All which Relative Ideas I shall easily prove to be no material Impresses from without upon the Soul, but her own active Conception proceeding from her self whilst she takes notice of external Objects.*'⁹⁸ Once such ideas had first been stimulated out of their state of latent potentiality, the mind could then recognise that certain relations held between them, and it could thereby achieve knowledge of the common notions: that the whole is greater than the part, that every number is even or odd, and so forth.⁹⁹

Finally, man could infallibly draw deductions from what he had learnt from his senses or from the common notions. Such deductions would be as self-evident as

⁹⁵ See *Antipsychopannychia*, 109–111 (cant. 2, stanzas 22–44). On innate ideas among the Cambridge Platonists at large, see Lamprecht 1926, and also DeBoer 1931. On More's treatment in particular, see Crocker 2003, pp. 70–74.

⁹⁶ *The Immortality of the Soul*, pp. 3–4 (bk. 1, ch. 2, §4).

⁹⁷ *An Antidote Against Atheism*, p. 17 (bk. 1, ch. 5, §3).

⁹⁸ *An Antidote Against Atheism*, p. 18 (bk. 1, ch. 6, §3).

⁹⁹ *An Antidote Against Atheism*, p. 19 (bk. 1, ch. 6, §6). See also *The Immortality of the Soul*, pp. 66–67 (bk. 2, ch. 2, §§9–12), where More sought to refute Hobbes's nominalist account of these common notions.

the fundamental common notion upon which they all collectively rested, namely that a contradiction cannot be true. The Roman Catholics and the enthusiasts, by contrast, turned their backs on all of this. The Catholics were misled by the false authority of their Church into embracing contradictions that violated their rational faculties. The enthusiasts, meanwhile, rejected reason ‘under pretence of expectation of an higher and more glorious Light’, whereas in fact this more mundane and universal reason was already derived directly from Christ himself, ‘who is the Eternal *logos*, the all-comprehending Wisdom and Reason of God, wherein he sees through the Natures and *Ideas* of all things, with all their respects of Dependency and Independency, Congruity and Incongruity, or whatever Habitude they have to one another, with one continued glance at once.’¹⁰⁰

There are passages here and there where More did appear to allow man a further cognitive faculty, superior to all three of these branches of reason, and where he thereby appeared to be verging rather close to enthusiasm himself. For instance, in the *Divine Dialogues*, the character of Philotheus—who can generally be relied upon to speak for More himself—insisted that ‘there is a kind of Sanctity of Soul and Body that is of more efficacy for the receiving or retaining of Divine Truths, than the greatest pretences to Discursive Demonstration’, and he attacked the use of ‘dry Reason unassisted by the *Spirit*’.¹⁰¹ Another character, Philopolis, complained that ‘this seems to open a gap to all Wildness and Fanaticism.’ But Philotheus disagreed: ‘I understand by the *Spirit*, not a blind unaccountable Impression or Impulse, a Lift or an Huff of an heated Brain; but the *Spirit of Life in the new Birth*, which is a discerning Spirit.’¹⁰² This might not have been quite the melancholy fancy of the enthusiasts, then, but nevertheless it would still appear to transcend common human reason.

However, despite Philotheus’s reference to the reception of ‘divine truths’, perhaps we do not have to interpret such remarks as these in a genuinely epistemological manner. When discussing inspiration and enthusiasm in *Conjectura Cabbalistica*, More referred to ‘an ineffable sense of life, in respect whereof there is no true Christian but he is inspired’.¹⁰³ More did not elaborate, but his idea seems to have been something akin to the ‘sense of the heart’ which various other theologians described in considerably more detail.¹⁰⁴ According to the doctrine, when a Christian was reborn in the Spirit, God would grant him a new sense of divine things, but—crucially—the experiences that this new sense would give him would not have any propositional content of their own. He would not learn any new *facts* about God or anything else. Rather, he would achieve a more profound appreciation of the same

¹⁰⁰ *Enthusiasmus Triumphatus*, pp. 38–39 (§54).

¹⁰¹ *Divine Dialogues*, pp. 10–11, 495 (dial. 1, §4; dial. 5, §28).

¹⁰² *Divine Dialogues*, p. 495 (dial. 5, §28). Crocker has examined More’s conception of a ‘new birth’, and his ‘illumism’ in general, in Crocker 2003, passim; see also Crocker 1990b. Otherwise, it has been rather neglected in the secondary literature on More.

¹⁰³ *Conjectura Cabbalistica*, p. 114 (*Appendix to the Defence of the Philosophick Cabbala*, ch. 1, §9).

¹⁰⁴ See, for instance, Erdt 1980, chs. 1–2.

old truths that he had already known intellectually or through revelation. He would already have known that a sentence like ‘God is love’, for instance, expressed a truth: what this new sense would give him was a *taste* of that very love itself. In *The Interpretation Generall* to his poems, More alluded to ‘the vanity of superficial conceited Theologasters, that have but the surface and thin imagination of divinity, but truly devoid of the spirit and inward power of Christ, the living well-spring of knowledge and virtue, and yet do pride themselves in prattling and discoursing of the most hidden and abstruse mysteries of God, and take all occasions to shew forth their goodly skill and wonderfull insight into holy truth, when as they have indeed scarce licked the outside of the glasse wherein it lies.’¹⁰⁵ These theologasters might have had the ‘dry reason’ to which Philotheus would later be referring, but what they lacked was this deeper relish of the truths that they were expressing. More’s discussions of this ‘sense of life’, which God granted to true Christians as they were reborn in the Spirit, are not explicit, one way or the other, on the question of whether there was any new propositional content involved therein: but they do at least permit a reading according to which there would not be. If this reading is correct, then we need not classify it as an additional *epistemological* faculty. More, after all, did not mention it in the same contexts as those in which he discussed the three branches of reason: sensation, common notions and deduction. We will also be able to clear More of the charge of succumbing to his own bugbear of enthusiasm—something that he, at least, was entirely confident that he was not doing—for genuine enthusiasm certainly *did* purport to produce genuine knowledge of new facts.

However, now turning our attention to More’s practical method of discovery, as opposed to his more theoretical epistemology, he did have a fourth source of information at his fingertips: namely, those ancient philosophical and religious texts, the authority of which he held in such high regard. Much as the modern enthusiasts might have been deluded in their own pretended inspirations, More felt that the prophets of the past really had been infallibly inspired by God, and that many important truths could be gleaned from their writings. And not only from the writings of the Biblical prophets themselves, but also of their pupils—recall how More felt that Pythagoras had been trained in the secret teachings of Moses at Sidon—and their pupils’ pupils after them. Of course, these latter texts could never match the writings of the Biblical prophets themselves in the infallibility stakes; and the further removed they were from their original inspired source, the less reliable they would become: but still useful guides, nevertheless. The fact that a certain doctrine had been endorsed by a select group of ancient authors was, *prima facie*, a strong point in its favour. However, such doctrines would still always need to be cross-checked against the tribunal of reason. If they were found wanting, then they would need to be jettisoned, no matter how eminent the authority behind them might have been. Even in the case of the Bible itself, some major interpretative effort might be required before

¹⁰⁵ *The Complete Poems*, p. 163b (*The Interpretation Generall*: ‘Psittaco’).

its true message could be extracted, and this process would, again, need to be conducted rationally. Biblical texts would always be true when interpreted correctly: but, as we saw, More did not think that the correct interpretation was always going to be the literal one. If a Biblical text seemed to suggest that the circumference of a circle was three times its diameter, then reason itself would dictate that the literal reading was not appropriate in this particular instance. Thus, notwithstanding the fact that certain authorities, Biblical and pagan alike, might have taken the lead in steering More's attention in the direction of certain ideas, their role would end there. Reason would always have the final say on whether he should actually endorse these ideas or not.

On the other hand, once he had come to a rational decision within himself, that he should embrace a certain position, when it then came time to present it to his readers, it could not hurt to toss in a few references to particularly esteemed authors. Philosophically speaking, their authority could not prove the truth of the claim in question: reason alone could do that. But an appeal to authority could nevertheless help to convince a sceptical reader. Right across the board, there was a lot of rhetoric in More's writings. He was not interested in discovering dry, sterile truths, merely for his own personal edification. He wanted to *persuade* his readers of such truths, his ultimate goal being nothing less than to save their immortal souls by bringing them to a proper knowledge and love of their creator; and he was prepared to make use of almost any ammunition or strategy he could find that might assist him in this campaign. Ideally, everyone in the republic of letters would have been perfectly receptive to thoroughly rational philosophical arguments, established by clear deductions from common notions and the sorts of sensible phenomena that were familiar to all. But many people simply were not like that. If, then, a quotation from an eminent authority could have the effect of winning a reader round, by awe if not by argument, then so be it.

One might make an analogous point about More's ghost stories.¹⁰⁶ More himself would doubtless have been considerably less credulous of these tales of apparitions if he had not been satisfied that the existence of spiritual world they suggested could be independently supported by rational arguments. Philosophically speaking, the apparitions were no more sufficient by themselves to prove the existence of such a realm than the authority of an eminent ancient thinker was sufficient by itself to prove the truth of his opinions. After all, even in the case of a genuine apparition, the thing that was actually appearing to the senses would still only be the aerial vehicle of the spirit, not the immaterial spirit itself. The unassisted senses could never reach beyond the physical effect, either to prove or to disprove a spiritual cause. However, what such stories *could* do was stir up the emotions of More's less intellectual readers in such a way as to draw them round to his way of thinking. There were more souls out there in need of saving than merely those of the more erudite philosophical community and, if More could not reason them into a belief

¹⁰⁶ See Coudert 1990; Hall 1990b, ch. 7; Crocker 2003, ch. 9; Jesseph 2005, especially pp. 212–215.

in spirits, perhaps he might yet be able to scare them into one. Consequently, More presented his theories in a variety of ways, multiplying arguments to a common conclusion in hopes that every group of readers, from the most intellectual to the least, might find at least one approach that suited its own particular capacity and was to its own particular taste.

Consider, for example, *An Antidote Against Atheism*. This work was divided into three parts. In the first book, More appealed to the Ontological Argument for the existence of God, based on his essence or definition as a supremely perfect being. This argument, as More himself acknowledged, did not even command universal consent within the intellectual community; and he recognised that it was nigh on impossible for the common man to get his head around it at all, and still less to find it compelling. Therefore, in the second book, he changed his tack and pursued the more down-to-earth Argument from Design. But still, much as this argument might have been grounded in the familiar, sensible objects of the material world, it did nevertheless require an intellectual leap, to rise up from these intricate and harmonious bodies themselves, in order to discover the omnipotent spiritual designer behind them all. And so, in the third book, More turned to his ghost stories, in hopes of convincing even the dullest, most sensual reader of the existence of a realm of immaterial spirits (for, once that had been done, it would then be only a short step to the existence of an ultimate spiritual principle to preside over this realm).

More presented a concrete example of the sort of effect he hoped to achieve by this method, in a prefatory letter to Glanvill's *Saducismus Triumphatus*, 'sadducism' (or 'saducism') being the name they gave to a denial of the existence of immaterial spirits.¹⁰⁷ He recalled a conversation he had had with one Father L., who had been a sadducist in this sense. More had initially tried to persuade him by means of dry discourses, but Father L. would always brush him off with a dismissive retort: 'This is Logick, Henry.' Even after Father L. had himself been subject to an apparent apparition, he had still been inclined to disregard it as a mere delusion, so entrenched was his sadducism. But then later, as the man lay dying, More reminded him of the experience, and what he found was that this had a far greater impact on his beliefs than any of his subtle reasonings about the future state of the soul had ever done. More asked him: 'Do you remember the clap on your Back when your Servant was pulling off your Boots in the Hall? Assure your self, said I, Father L. that Goblin will be the first that will bid you welcome into the other World. Upon that his Countenance changed most sensibly, and he was more confounded with this rubbing up his memory, than with all the Rational or Philosophical Argumentations that I could produce.'¹⁰⁸ More hoped that the readers of the third book of *An Antidote Against Atheism*, and of *Saducimus Triumphatus* itself, might encounter a similar epiphany.

More generally, More was always conscious of his readership, and he endeavoured to cater for all sections thereof. He wrote technical Latin works for the cognoscenti;

¹⁰⁷ After Acts 23:8: 'For the Sadducees say that there is no resurrection, neither angel, nor spirit: but the Pharisees confess both.'

¹⁰⁸ *Saducismus Triumphatus*, pp. 23–25, here p. 25 ('Dr H.M. his Letter').

but he also wrote jaunty dialogues in the vernacular, to lure in those readers who might have balked at the prospect of a dry, academic treatise. He would happily use arguments drawn from both intellect and sensation; and, as with Father L., he would even resort to mild forms of subterfuge. Any means that could lead towards the desired end might be justified thereby, the overarching goal being to win his readers round to the important truths of his spiritualist philosophy. When he attacked enthusiasm and Roman Catholicism, it was in hopes of luring the enthusiasts and the Catholics towards the proper use of reason, on which both groups had hitherto been turning their backs, the one in favour of their own imagined inner lights, the other in favour of the supposed authority of incoherent pronouncements issued by a corrupt Church. Once his readers had first been induced to heed the dictates of reason, More could then offer them solid arguments, grounded in whichever of reason's branches happened to be the most appropriate. In using arguments from sensation, More hoped that he could win over those whose latent intellectual powers were insufficiently developed, but who were at least content to trust the evidence of their senses. In constructing new intellectual demonstrations of the same conclusions, More hoped that he could convince those who did place their trust in the powers of the intellect, but who remained unconvinced by the arguments they had seen presented thus far.

Chapter 2

Atoms and Void

1 Background

We will arrive at More's treatment of the twin topics of atoms and void shortly. First, though, and at the risk of plodding over familiar territory, it will be worth our briefly surveying some of the earlier positions in this area. I will certainly not be covering everything here: this is not the place for a thorough trawl through all of the historical minutiae. But I shall be drawing particular attention to certain issues that are going to have a bearing on More's own discussions.

As we have already had occasion to observe, More was of the opinion that the first inventor of the atomist hypothesis was none other than Moses himself. From the point of view of more cautious and objective historical scholarship in our own era, there does not seem to be much evidence to support this contention. Perhaps it is just about conceivable that there might have been something to those suggestions in certain classical authors, about a Sidonian or Phoenician called 'Mochus' or 'Moschus': but, when it comes to the identification between this mysterious individual and the Biblical Moses, that seems to have had little more going for it than Renaissance and Early Modern wishful thinking. At least as far as current scholarly orthodoxy is concerned, the first known atomists were the Presocratic philosophers, Leucippus and Democritus. Even there, though, we only possess a couple of fragments from Leucippus; and, although we do have somewhat more from Democritus, it is still in the form of mere fragments and testimonia, preserved in the works of Aristotle and others. Shortly after Aristotle's own time, Epicurus took the baton from Democritus, incorporating a few new ideas of his own into the same basic scheme, and setting it into a somewhat more elaborate and all-encompassing philosophical system. In addition to yet more fragments and testimonia, preserved by other authors, a few of Epicurus's own writings have survived intact, including (and most notably from the point of view of his physics) his Letter to Herodotus. And then, couple of centuries further on still, Epicurus's

system was put into Latin verse by Lucretius, whose *De rerum natura* contains, by a considerable margin, the most compendious extant statement of classical atomism.

The atoms of these classical authors were essentially defined by their indivisibility (as the Greek root of the word, *atomos*, directly connotes), and they did not have many intrinsic properties besides this. They did possess size, albeit only a minute and individually imperceptible one.¹ They also possessed shape, impenetrability, and (in at least some accounts) weight. In relation to one another, they would instantiate some particular arrangement; and (when time, and hence the possibility of a change in such arrangement, was factored in) motion could also be attributed to them. But all of the other familiar sensible qualities of things, such as colour, sound or flavour, were reduced to the different effects that arose when atoms of varying shapes, sizes and speeds struck against the various sense organs.²

There was then a second principle within the classical atomist system: the void. The atoms and the void were both uncreated, the atoms infinite in number and the void infinite in extent, resulting in a universe of infinite worlds, existing through infinite time. Absolutely everything that existed, even those entities that were not obviously material (such as the human soul), was truly nothing more than a certain collection of atoms, arranged in otherwise empty space. Bodies of equal size were able to differ in weight only because their constituent atoms could be packed more or less closely together, with more or less void between them. The void was also thought to be necessary for motion, in order that there might be spaces into which objects could move, rather than finding their paths blocked by a solid plenum. As for the explanations of these motions themselves, they were regarded as the results of physical necessity. When one body struck another, the circumstances of the impact—defined in terms of size, shape, and prior motion or rest—would fully determine the resulting posterior motions. In more modern parlance, the universe of Democritus was a mechanical system. Admittedly, Epicurus (and Lucretius after him) did water this last point down slightly. Quite aside from endowing atoms with weight, as a non-mechanical principle of self-motion, they also suggested that, every now and then, a single atom would swerve ever so slightly away from the straight line it had formerly been describing, not because it was determined to do so under the mechanical influence of some other object, but literally for no reason at all. However, these swerves would be few and far between, and Epicurus and Lucretius still defined *most* atomic behaviour purely in terms of the mechanical communication of motion by impact. When two atoms happened to meet, on their travels through the void, sometimes they would bounce apart, and sometimes they would get tangled up with one another in virtue of their

¹ A few fragments from Democritus do seem to leave open the possibility that there might be enormous atoms, still meriting the title in virtue of their indivisible solidity. But the idea is problematic, and it does not recur in later discussions.

² For the full history of atomism, from the classical period right up to the seventeenth century (and beyond), see Van Melsen 1952; Kargon 1966; Pyle 1995.

irregular, hooked shapes, and would proceed to move on together as a larger unit. Either way, though, the motions of the two atoms, whether together or apart, would generally be determined entirely by the circumstances of the impact, these circumstances being themselves definable in terms of the basic properties of size, shape and motion.

Now, notwithstanding the local support that such figures as Democritus or Epicurus did garner in their time, the basic tenets of atomism were rejected by most of the other, rival schools of classical philosophy. Especially relevant from the point of view of More's own philosophy, Plotinus rejected them, declaring quite straightforwardly: 'There are no atoms; all body is divisible endlessly'.³ But, from the point of view of the wider development of philosophical opinion in this area, a more significant figure than Plotinus would be Aristotle; and Aristotle also presented his own thorough refutations of the atomists' fundamental principles.

The notion of an extended yet indivisible atom, Aristotle observed, had partially originated out of an examination of the notion of infinite divisibility itself. If a body was susceptible to an infinite process of division, then it would seem that the infinitely many ultimate parts that such a process would yield would need to be individually either extended or unextended. But, if they were unextended, then it would seem that a body's bulk could be reduced to nothing at all, not by annihilating any of its parts but simply by moving them about, so as to separate them from one another. That seems wrong. On the other hand, if they were extended, then—given that, again, there would be infinitely many of them—it would seem that we would have somehow transformed the finite bulk we started with into an infinite one, again just by moving its parts around. And that seems wrong too. The atomists, insisting that nothing could come from nothing or go to nothing, responded to reflections like these by concluding that bodies could not be infinitely divisible after all. Even a theoretical process of division and subdivision would need to terminate after only a finite number of steps, and thereby yield a finite number of parts, each one of some particular finite size.

Aristotle, however, responded by objecting that what the notion of infinite divisibility really meant was that there simply were no 'ultimate parts', of a kind that would be left after an infinite process of division had been completed. As far as he was concerned, the whole point about an infinite process was that it could *not* be completed. The infinite divisibility of a body, for Aristotle, did not mean that the body could actually be divided infinitely many times, so to yield an actual infinity of parts. Consequently, the question of whether these parts might be extended or unextended simply did not arise. Rather, what infinite divisibility meant was that, no matter how many times the thing had already been divided, it would always be possible to divide it again, and again after that, to produce an ever larger number of ever smaller parts. But both the number of these parts, and the size of each one, would always remain finite. By distinguishing the potential infinite from the actual infinite, and by favouring the former as the correct conception of infinity, Aristotle could

³ Plotinus 1992, p. 123 (enuead 2, tractate 4, ch. 7). See also pp. 174–175 (enn. 3, tr. 1, chs. 2, 3).

avoid the contradictions that were apparently involved in the hypothesis of infinite divisibility, and he was happy to embrace that hypothesis and reject the theory of atoms.⁴

Equally, Aristotle also rejected the void. He argued that local motion did not require there to be a void, because a collection of bodies could move together in such a way as to make room for one another simultaneously. Indeed, he went further: far from motion's requiring a void, he felt that a void would actually serve to render motion impossible. As for differences in density, Aristotle did not feel that these required any postulation of more or less empty space within a body. When a body expanded, this would not be because its constituent particles had got further apart; and, when it contracted, this would not be because the gaps between its particles had been reduced. Rather, the matter of the body would possess its own inherent potential to be larger or smaller, and its expansion or contraction would simply amount to the actualisation of this potential.⁵

During the Middle Ages, as Aristotelian physics came to dominate the field, atomism faded into the background. Nicholas of Autrecourt, in the fourteenth century, was an exception, arguing both for atoms and for microscopic interstitial vacua between them.⁶ But, by and large, neither atoms nor void were at all popular. With regard to the latter, as one of the most famous of all scholastic slogans had it, nature abhors a vacuum. However, if a vacuum was merely unnatural, rather than downright impossible, then two areas where there might yet have been one were *outside* the natural world and *before* its creation. In 1277, a set of 219 diverse articles of theology and natural philosophy were condemned by the Bishop of Paris, one overarching theme of the condemnation being an emphasis on the absolute omnipotence of God. In particular, it was no longer to be denied that God could, if he wished, make more than one world, or that he could move our own world rectilinearly. But any two worlds, if they were going to be truly distinct from one another, would presumably need to be separated by empty space; while the rectilinear motion of this world would apparently mean that the place it had formerly occupied would be left empty. Medieval speculations about the other side of the boundary of a finite cosmos gave rise to the notion of 'imaginary space'. Although a variety of different theories about this space were developed, many of which explained it merely as something conceptual or something potential, there were also suggestions here and there that it might actually be something *real*—real but nevertheless empty.

As for the temporal duration of the universe, most Medieval philosophers were led by their Christian or Muslim religious commitments to turn their backs on Aristotle's own contention that it had always existed, and were inclined to make it as finite in time *a parte ante* (i.e. going back into the past) as it was finite in extent in all directions. This then suggested the possibility that a space might have existed

⁴ Aristotle 1984, vol. 1, pp. 516–518 (*On Generation and Corruption*, bk. 1, ch. 2; 316a15–317a32); vol. 1, pp. 351–353 (*Physics*, bk. 3, ch. 6; 206b3–207a31).

⁵ Aristotle 1984, vol. 1, pp. 362–369 (*Physics*, bk. 4, chs. 6–9; 213a11–217b28).

⁶ Grant 1981, pp. 74–77; Van Melsen 1952, pp. 77–78; Pyle 1995, pp. 212–213.

before the creation of the physical world, a space which ex hypothesi would have needed to be empty at that time. This suggestion, however, did not generate as much discussion as one about an extra-mundane imaginary space, not least because that same 1277 document did actually single out the thesis of the necessary existence of an independent pre-creation void for specific condemnation. Nevertheless, the idea was there, and one formulation of it which began to arise in the fourteenth century suggested that perhaps there was indeed an eternal, uncreated antemundane space, but that this ought to be regarded as theologically acceptable because this space was not independent of God, but was associated with him in some sense or other.⁷ (We will return to this notion of antemundane space in the next chapter below).

As far as atoms were concerned, leaving aside Nicholas of Autrecourt and a small handful of others (who, in many cases, left us such sketchy clues as to their real opinions that any attempt at a reconstruction is likely to be unsafe anyway), such entities simply were not countenanced in Medieval thought. In this context, however, it is worth our noting a passage in Aristotle's own *Physics*, together with the Medieval discussion it generated: for, although not quite the same, these do have certain affinities with atomist notions.

In the course of a critique of Anaxagoras, Aristotle suggested that, 'if it is impossible for an animal or plant to be indefinitely big or small, neither can its parts be such, or the whole will be the same. But flesh, bone, and the like are the parts of animals, and the fruits are the parts of plants. Hence it is obvious that neither flesh, bone, nor any such thing can be of indefinite size in the direction either of the greater or of the less.'⁸ This passage generated a long-running debate regarding natural minima, the smallest parts into which a body could be divided.⁹ This debate took in the Greek commentators (Alexander of Aphrodisias, Themistius, Philoponus), the Arabs (especially Averroes), and many of the European Schoolmen; and it led eventually to Julius Caesar Scaliger in the sixteenth century and Daniel Sennert in the early seventeenth. In the early days of the debate, these supposed smallest parts were really very unlike atoms indeed. As the above passage from Aristotle suggests, the doctrine was initially only applied to the case of living things. The natural minima of those bodies had qualitative properties in common with the bodies of which they were parts, rather than being characterised merely in terms of size, shape and motion. Far from being utterly indivisible, they were divisible not only mathematically but even physically. The point was merely that any further division would, by stripping them of these qualities, serve to remove them from the kind to which they had formerly belonged (flesh, bone, or whatever). Moreover, they were conceptualised

⁷ For full discussion of these Medieval developments, see Grant 1981, chs. 5–6; Duhem 1985, chs. 4–6. Also, more briefly, see Grant 1976; or Grant 1977, ch. 5. For an equally thorough discussion, though here examining late classical positions more than Medieval ones, see Sorabji 1988, chs. 8–12.

⁸ Aristotle 1984, vol. 1, p. 320 (*Physics*, bk. 1, ch. 4; 187b17–187b21).

⁹ Van Melsen 1952, pp. 41–89, 116–118; Kargon 1966, pp. 71–72; Pyle 1995, pp. 210–231; Garber, Henry, Joy and Gabbey 1998, pp. 554–556.

merely as the end-points of division, taking the macroscopic body as the starting point, with no hint of their being the fundamental building blocks out of which that macroscopic body had inherited its reality in the first place. Prior to their actualisation by such a process of division, their own reality and identities were merely potential. Given a macroscopic body, one could make the first cut anywhere along its length, rather than needing to find a boundary between already-actual minima; and one could exactly bisect a body even when its size was an odd multiple of the natural minimum size of its parts (because, far from thereby producing a half of a minimum, one would simply be producing two pieces that were each greater than one minimum).

However, as the theory gradually evolved over the centuries, many of these points were overthrown or at least undermined. As early as the Greek commentators, the theory was extended to cover non-living things. The Averroists made these minima present as actual parts of bodies, and allowed them to play specific roles in physical and chemical processes. Scaliger and Sennert finally made it fully explicit that they were not merely end-points to division, but were the starting points of composition, and the fundamental building blocks of physical things. By the seventeenth century, Sennert could claim that these Aristotelian natural minima were really just the same as the atoms that Democritus had postulated. The identification might still have been somewhat dubious, but at least it was not quite as outlandish a claim as it would have been when Aristotle first set the ball rolling for this theory.

But, leaving these Aristotelian natural minima to one side and turning properly back to the atoms of Democritus and Epicurus themselves, the rediscovery of certain Epicurean texts during the Renaissance, such as Lucretius's *De rerum natura* in 1417, sparked a new interest in the considerations contained therein. Non-Aristotelian philosophers such as Nicolas of Cusa in the fifteenth century and Giordano Bruno in the sixteenth postulated not only atoms but also a boundless corporeal universe, spelling these concepts out in terms that were at least partially Epicurean.¹⁰ It was not, however, until the seventeenth century that the revival of Democritic/Epicurean atomism really got going.

In More's time, although Aristotelian physics did still enjoy widespread support, its days were definitely numbered. As the author of the *Journal des Sçavans* was moved to write in 1678, 'Aristotle's physics never had more opponents. Every day, new ones appear.'¹¹ One such opponent was Pierre Gassendi (1592–1655), who explicitly sought to reconcile Epicureanism with Christianity, inserting spiritual principles, and an immaterial and providential God in particular, into a physical system of atoms and void. Importantly, Gassendi's system (which was subsequently popularised in France by François Bernier and in England by Walter Charleton) was also broadly mechanical. His atoms, unlike the Aristotelians' natural minima, were stripped of their qualitative properties, to leave just the mechanical properties of size, shape, impenetrability, and motion/rest (although, by also

¹⁰ Koyré 1957, chs. 1–2; Grant 1981, pp. 138–141, 182–190; Pyle 1995, 222–225.

¹¹ From a review of *Naturalium doctrina Andreae Pissini Lucensis* in the issue for 18 July 1678.

endowing them with weight as an inherent principle of self-motion, Gassendi's commitment to mechanism was not quite total).

But arguably more important to the revival of a purely mechanical philosophy in general—and certainly more important to Henry More himself, the real subject of the present study—was Descartes. As a matter of fact, Descartes did not believe in either atoms or void, believing instead that the material universe was an infinitely divisible (and also infinitely large) plenum. (Or, rather, 'indefinitely' divisible and large: Descartes preferred to reserve the word 'infinite' for God alone, and to use the word 'indefinite' when he was discussing the created world. He thought that we were capable of positively understanding that God's perfections could not have any limits; whereas, with created things—at least in certain respects—he felt that we were incapable of understanding how they could have any, but was reluctant to infer from this inability that they definitely could not).¹² However, even if not strictly atomistic, Descartes' system was wholeheartedly corpuscularian. Macroscopic phenomena, and especially those that had struck the Schoolmen as necessitating the postulation of substantial forms and real qualities, were instead to be explained in terms of the interactions of minute corporeal particles. Individually, these impenetrable particles would possess size, shape, and motion or rest: but that would be all. Although they did still remain, qua extended, indefinitely *divisible*, in many cases they would tend to operate as integrated wholes, at least for a while, and would not readily succumb to *actual* division.

Although Descartes rejected the Aristotelian scheme of five essentially different kinds of matter (earth, water, air, fire, plus a heavenly aether) he did postulate three elements of his own, which, although not *essentially* different, did nevertheless behave differently in the natural course of things. Their essences were all defined in terms of extension, but this extension would be differently configured in the three cases. The gross bodies of the planets and comets, along with their respective individual parts, would be predominantly made up out of third element, which consisted in bulky particles that were, in virtue of their shape and size, less susceptible to motion than particles of the other two elements. It would be a body's quantity of matter of this third element that would determine its 'solidity', as Descartes called it—the closest thing he had to the later concept of 'mass'.¹³ The second element, meanwhile, filled the ostensibly 'empty' space of the heavens, and, being composed of particles that were smaller and spherical in shape, it was much more fluid than the third element. However, it is impossible for spheres to be packed tightly together without leaving gaps. Consequently, if there was not going to be any genuine void in the universe, there would need to be particles that were even smaller than the heavenly globules—indeed, Descartes suggested, indefinitely small—to fill up these gaps. These particles of the first element (which Descartes regarded as 'scrapings' that had been removed from the larger particles as they had been ground into their spheres) would thus need to be diffused throughout the whole universe: but, when more concentrated in certain specific places, they would collectively constitute the

¹² Descartes 1991, pp. 13–14/AT 8A:14–15/CSM 1:201–202 (pt. 1, §§26–27).

¹³ Descartes 1991, pp 151–153/AT 8A:170–172 (pt. 3, §§121–122).

Sun and fixed stars. Being so tiny, these particles would move very readily, and they would equally readily give themselves up to further division, producing ever smaller particles of whatever shape happened to be needed to fill an interstitial gap of any shape between the larger particles.¹⁴ As far as condensation or rarefaction were concerned, Descartes explained these in much the same way as the classical atomists had done, in terms of the closing or opening up of minute pores within a sponge-like body. The difference was merely that, for Descartes, these pores would not be truly void, but would contain more or less of this subtle matter, actually divided to fit whatever shapes those pores might happen to take on. The mass of the body as a whole would derive from its bulkier particles: the subtler matter in the pores between these particles would be discounted from this quantity, thereby allowing for differences in density, notwithstanding the Cartesian plenum.

As for qualities, Descartes sharply distinguished the mechanical properties of size, shape, and motion or rest, from sensible qualities such as colour, flavour, odour and the like. The former were the true modes of extended substance, properly knowable only through the intellect, and they belonged to all bodies, even those too small to be individually discernible by our senses. The latter, by contrast, did not really belong to bodies at all. Rather, these were modes of thought, mere ideas that would be stirred up in percipient minds when the bodies imparted certain motions into our sense organs by impulse (whether directly to the touch or taste, or indirectly to the other senses by means of various corporeal intermediaries), in ways that were, again, to be spelt out in purely mechanical terms.

Much the same distinction was subsequently embraced by corpuscularians like Robert Boyle (1627–1696), who gave the titles of ‘primary’ and ‘secondary’ to these two classes of quality, a terminological distinction that would subsequently be popularised by John Locke. Although Boyle showed some reticence in committing himself too firmly to the truth of a corpuscularian and mechanical physical system, those works in which he opted to ‘assume the person of a corpuscularian’ (such as 1666’s *The Origins of Forms and Qualities according to the Corpuscularian Philosophy*) did much to spread the new physics in England. Boyle sought to explain how the whole variety of sensible qualities of bodies could be reduced to the size, shape, motion/rest and arrangement of their insensible, solid parts. With regard to the indivisibility of these microscopic particles, Boyle’s position was not so very far from Descartes’. He declined to make such a particle necessarily indivisible, but he nevertheless maintained that it would rarely if ever encounter actual division in the natural course of events: ‘though it be *mentally*, and by Divine Omnipotence divisible, yet by reason of its Smallness and Solidity, Nature doth scarce ever actually divide it.’¹⁵

¹⁴ Descartes 1991, pp. 108–110; AT 8A:103–105 (pt. 3, §§48–52). See also AT 11:23–31 (*Treatise on Light*, ch. 5), translated in Descartes 1998, pp. 16–21.

¹⁵ Boyle 1999–2000, vol. 5, p. 325–326 (*Origin of Forms and Qualities*, Considerations and Experiments, sect. VIII.1).

Boyle certainly thought that such natural divisions were a great deal rarer than Descartes did: but he was still willing to allow their possibility.

Importantly, Boyle was also directly involved in the first wave of new experimental research that was just beginning to suggest that a vacuum might in fact be not merely a logical possibility but a real physical one.¹⁶ Alongside Otto von Guericke (1602–1686), Boyle participated in the production of the first generation of air-pumps, whereby the air could be (almost) entirely sucked out of a glass chamber. Now, it is worth appreciating that Boyle himself did not actually believe that a strict vacuum was getting produced within the chamber. He was willing to describe the state within the chamber as a ‘vacuum’ in one sense, signifying only that there was (to all intents and purposes) no air left in there: but he pointed out that there would still be, for instance, light and the Earth’s magnetic effluvia.¹⁷ On the question of whether there was or even could be a *total* vacuum anywhere in the universe, Boyle remained agnostic.¹⁸ Guericke himself, however, was much more confident, maintaining that he could ‘demonstrate there is no doubt that a vacuum exists in nature by means of many experiments’.¹⁹ More generally too, although the committed plenists were quick to supply their own alternative explanations of the observed phenomena, many others were coming round to the notion that the air-pump experiments were not only revealing many interesting properties of the air itself, but were also shedding important light on the nature (and genuine possibility) of the void that remained when it was removed.

In addition, in 1644—the year of Descartes’ *Principles of Philosophy*—Evangelista Torricelli inverted a tube of mercury, with the top end sealed and the bottom end fully immersed in a dish of the same substance. He found that the column of mercury fell a short distance from the top of the tube, with some of it trickling out into the dish, but that the remainder of the column hung suspended beneath a space which—and all could at least agree on this—contained no mercury. The question that puzzled Torricelli, and the other scientists and philosophers who responded to the experiment, was: what, if anything, *did* this space contain? (And also a second question: what was holding the remainder of the mercury up in the tube?). Again, many stuck to their plenist principles, and offered a variety of answers to the question of what was present in the Torricellian space. They suggested, for instance, that aethereal matter (or maybe even air) was actually being sucked through the pores of the glass. But nothing was *obviously* entering that space when the mercury vacated it, and to many it did seem that a vacuum had indeed been produced within it.

¹⁶ See Shapin and Schaffer 1985. Also see Schmitt 1967 on certain hesitant steps in this direction during the sixteenth century.

¹⁷ Boyle 1999–2000, vol. 10, p. 469 (*A Free Enquiry into the Vulgarly Received Notion of Nature*, sect. IV).

¹⁸ See Shapin and Schaffer 1985, pp. 45–46, 80–81, 119–121, 168.

¹⁹ Guericke 1994, p. 88 (bk. 2, ch. 3).

2 Henry More on Atoms

The first thing to say about More, to locate him within this scheme, is that he was an atomist. Even before his discovery of Cartesian physics in the mid-1640s, he was already content to reduce bodies to atoms which, though extended, were necessarily indivisible (this strict indivisibility not having been part of the Cartesian theory anyway). Although there was not very much in 1642's *Psychodia Platonica* that dealt directly with the nature of the corporeal world as such, one thing that it did suggest was that this world was made of atoms.

Admittedly, this topic only really got tackled in detail in one short passage, from the second canto of the first book of *Psychathanasia*.²⁰ Indeed, even there, it was introduced specifically as a parallel for certain difficulties that More's opponents might have been having with the notion of an immaterial spirit—the latter being the thing that More was really interested in. Having spent a while enumerating several problems that a materialist opponent might have found with his notion of spirit (stanzas 49–52), More finally exclaimed 'Enough!' (stanza 52). Even if he could not fully satisfy his opponent's specific complaints, he explained, he could at least point out that, if they believed that obscurities in the notion of a thing were sufficient to put the existence of that thing into doubt, they were at least quite wrong about *that* (st. 52; cf. 59). After all, as he proceeded to point out, no one would ever dream of questioning the fact that bodies were three-dimensionally extended: 'yet to satisfie / All doubts that may be made about extension / Would plunge the wisest Clerk' (st. 53). He then proceeded to present some of these obscurities, focusing specifically on the question of whether an extension consisted of a finite number of atoms, or alternatively whether it was endlessly divisible in such a manner that not even God could 'count the parts of a small linear twist' (ibid.). Now, given More's rhetorical motive in introducing this discussion at all, one might have expected that he would have sought to demonstrate that in fact *none* of the various alternative theories, about the parts or divisibility of matter, were going to be free of difficulties. That would have given him the best chance of defending the notion of spirit against the charge of impossibility on grounds of obscurity. However, in the event, this is not what we get. Although More did raise some substantial objections against other positions, the atomic theory alone managed to come through his discussion unscathed. It would therefore appear to win by default, once all of the alternatives had been ruled out. Indeed, as we will see in a moment, More did at one point offer a clear indication that this was indeed the theory that he himself was inclined to endorse.

More began by rejecting the Aristotelian notion that extension was infinitely divisible in the sense that no ultimate parts could ever be reached. Those who believed in this form of a potential infinite divisibility might have suggested that it would detract from God's omnipotence to suggest that there could ever be a part of

²⁰ *The Complete Poems*, pp. 51a–b (*Psychathanasia*, bk. 1, cant. 2, sts. 52–59).

matter that he did not have the power to divide still further. But More came at it from the other direction. As far as he was concerned, their own hypothesis of infinite divisibility was itself undermining God's omnipotence. More felt that God's infinity, rightly construed, ought to enable him actually to *complete* a process of division, so as then to be able to count the number of parts into which he had divided the matter, and to do so *even if* the number of steps in the process (and consequently the resulting number of parts) was infinite.²¹ When it came to the infinity of God's power—or, for that matter, anything else pertaining to God—More felt that this certainly should be understood as an *actual* infinity, not merely a potential one. There could be no trace of unrealised potential in God. But what could it mean to characterise such power as actually infinite, if it was nevertheless impossible that it should actually be *exerted* infinitely? In modern parlance, an actually infinite God ought to be able to complete any task whatsoever, including a 'supertask'. To declare otherwise, More felt, would be impious (st. 54). The same God who had 'ordered all things in measure and number and weight' (Wisdom 11:20) should surely be able to count up the total number of parts in any given object (st. 55). Therefore, there had to *be* such a thing as the total number of parts, rather than—as the Aristotelians maintained—an endless potential for getting yet more.

Let us suppose, then, that a body is infinitely divisible in the sense that God could divide it into an *actual* infinity of parts. More then asked whether these parts would be individually extended or unextended. Here, he fell back on traditional arguments. These infinitely many parts could not all be extended, for that would serve to make the original extension infinitely great, and each fly on a Summer's evening would be greater than the heavens (st. 55). Neither could none of them be extended, for that would serve to reduce the original quantity to nothing (st. 56). Besides which, such a reduction to unextended mathematical points would play havoc with geometry (st. 57) and with optics (st. 58). More announced that he could demonstrate that a scalene triangle would be identical to an isosceles, and that it would be dark all the time, and he supplied the demonstrations of these paradoxes in the 1647 notes on this poem.²²

More also pondered whether maybe only *some* of these ultimate parts were extended, while there were also others that were not. More found it hard to know quite what to make of this 'vain shifting thought' (st. 56). But, ultimately, it did not really matter how this peculiar notion was going to be spelt out in detail. In order to preserve the finiteness of the whole extension, the extended parts—the only ones that were actually doing any work in contributing to this overall extension—would need to be finite in both extension and number. Since these were, *ex hypothesi*,

²¹ Compare the following from the Appendix to *An Antidote Against Atheism*, p. 222, although note that the context there is different: '... that it will amount to a number truly *infinite*, and that our Understanding can never go through it: But, though God's Understanding can, that it does not follow that the number is therefore *finite*; for an *infinite mind* may well comprehend an *infinite number*.' (Appendix, ch. 13, §4).

²² *The Complete Poems*, pp. 148b–150a (notes upon *Psychathanasia*, bk. 1, cant. 2, sts. 57–58).

among the ultimate parts that were reached when the body had been divided as far as division could go, it would follow that they themselves were indivisible. Therefore, putting their extension and their indivisibility together, they would qualify as atoms. If an opponent still wished to maintain that, mingled somehow in amongst these atoms, there were additionally lots of mathematical points, then so be it. The fact that there was something *else* there, besides the atoms, did nothing to undermine the fact that there *were* atoms there. And it was at this point that More seemed to indicate that, notwithstanding the wider spiritual context and the rhetorical purpose behind the inclusion of this physical discussion, he really was personally committed to atomism. Having explained that the actual extended parts, in this blend of extended and unextended ones, would need to be finite, he remarked to his opponent: 'Grant me but that, and *we shall well agree, / So must sleight Atoms be sole parts of quantitie.*' (Ibid., emphasis added).

(As a matter of fact, in this discussion, More never did quite get round to making a direct examination of the notion that the process of division might actually be completed after only a finite number of steps, so as to yield only finitely many ultimate parts of a subdivided body. But, in that case, it would be even more readily apparent that these parts would qualify as atoms, in virtue of the twin facts that (i) *ex hypothesi*, they could not be subdivided any further; but (ii) they would nevertheless need to be finitely extended, adding up to the extension of the body from whence they had come).

Among the principles upon which More's overall argument hung, the most important one as well as the most original—though also the most contentious—was his view that an actually omnipotent God ought to be able to complete a process of division, even if it involved infinitely many steps. To put the point in an even more paradoxical way: the idea was that God could reach the end of a process, even when the process had no end to reach. Framed in that way, it is easy to see why this notion might have been regarded as contradictory. But then perhaps God could make the first cut after half a minute, the second after another quarter, the third after another eighth, the fourth after another sixteenth, and so on. By the time the whole minute has elapsed, his work will be done. (Though it is worth acknowledging that More never elaborated the idea in quite this way). If we do grant this conception of God's omnipotence to More, and thereby grant him the principle that a process of division must ultimately lead to a body's smallest parts, then his conclusion as to the nature of such parts—that there should necessarily be finitely many finitely extended ones—would indeed seem to follow quite smoothly. But, of course, the coherence of this notion of an ultimate smallest part is precisely what Aristotle, and the infinite divisibility theorists in general, denied. This is really the issue that goes to the heart of the atomist debate and, when More returned to the topic in his 1648–1649 correspondence with Descartes, he again made this same issue central to his argument.

And so, in his first letter, More rejected Descartes' Aristotelian conception of the merely potentially infinite—or, as Descartes preferred to say, 'indefinite'—divisibility of bodies, as a process that not even God could complete. And his grounds were just

the same: this lack of ability would detract from God's omnipotence.²³ In response, Descartes still sought to defend his conception of indefinite divisibility. However, he also made the following concession to More: 'I cannot assert that their division by God could never be completed, because I know that God can do more things than I can encompass in my thought.'²⁴ Now, coming from Descartes, this was actually not much of a concession at all. Quite notoriously, Descartes was prepared to allow that God's omnipotence might transcend the laws of logic that constrained our intellects, even to the point of making eternal truths false or contradictions true. But Descartes nevertheless remained adamant that *we* could only ever establish anything about the natures of bodies (or anything else) by using our own logically constrained intellects. As he said elsewhere: 'What is to us that someone may make out that the perception whose truth we are so firmly convinced of may appear false to God or an angel, so that it is, absolutely speaking, false? Why should this alleged "absolute falsity" bother us, since we neither believe in it nor have even the smallest suspicion of it? For the supposition which we are making here is of a conviction so firm that it is quite incapable of being destroyed; and such a conviction is clearly the same as the most perfect certainty.'²⁵ But More, for his part, was satisfied with Descartes concession. Having extracted it, he was content then just to let the matter drop, writing in his next letter that there was no further dispute between them on this issue.²⁶ For that point itself, about God's power in relation to an infinite division, was really all that More needed to get his atomist argument to work. If a body was only finitely divisible, then More would straightforwardly have his atoms. But, if it was infinitely divisible, he would *still* have them, just as long as God (at least) could actually complete such a division; for that would entail that it would still be possible to ascribe ultimate smallest parts to the body, and then to consider whether these were extended or not. So, if Descartes was willing at least to leave the door open to a terminus to division (even if no more than that), then he was at least edging in the direction of More's own position. Edging far enough to satisfy More, at any rate.

The same argument appeared again four years later in *An Antidote Against Atheism* (1653), where More followed his *Psychathanasia* discussion almost to the letter. Again he observed that some people had found it very hard to come up with an adequate notion of a spirit, and that they were for that reason inclined to deny its existence altogether. Again he responded that, if obscurities in the nature of a thing were sufficient to remove its existence, then there would be nothing left, because there were equal difficulties in framing an adequate notion a body. And again he proceeded to point out some of the paradoxes that arose, specifically, from the hypothesis that extended matter either consisted (solely) of mathematical points or that it was endlessly divisible, making many of the same points he had made a

²³ *Epistolae quatuor*, p. 63/AT 5:241–242 (More to Descartes, 11 December 1648).

²⁴ *Epistolae quatuor*, p. 69/CSMK 364/AT 5:273–274 (Descartes to More, 5 February 1649).

²⁵ CSM 2:103/AT 7:145 (Second Replies).

²⁶ *Epistolae quatuor*, p. 76/AT 5:303 (More to Descartes, 5 March 1649).

decade earlier.²⁷ And then, another six years after that, he was still introducing his discussion of atoms in *The Immortality of the Soul* (1659) in precisely the same way, once again to deflect criticism of the notion of spirit. More here defined atoms as ‘particles that have indeed real extension, but so little, that they cannot have less, and be anything at all, and therefore cannot be actually divided.’²⁸ Their extension was ‘essential’, as opposed to the ‘integral’ extension of the bodies that were compounded out of them. And then, as for the existence of such atoms, although More’s argument here was somewhat enthymematic, it basically ran as it had run before.

More now presented it in a syllogistic form:

That which is actually divisible so far as actual division any way can be made, is divisible into parts *indiscernible*.

But *Matter* (I mean that *Integral* and *Compound Matter*) is actually divisible as far as actual division any way can be made.²⁹

First of all, I should explain that ‘indiscernibility’ was More’s preferred term for the impossibility of *actual* division. An object might still contain parts that could be separately considered by the intellect, and that might be deemed a sort of mental separability. But, just as long as these notional parts could not be physically separated from one another by any power whatsoever, the object would still qualify as indiscernible.³⁰ (We will return to this notion when we discuss immaterial extension below, particularly in Chap. 6). The first premise, which More declared to be as clear as any common notion in Euclid, is therefore pretty straightforward. Its form is merely hypothetical: we can read it as saying of an object that, *if* the process of its repeated division and subdivision can actually be completed, then no further division will be possible thereafter. But that is just what it means for such a process to be completed. The real work in the argument is thus being done by the second premise, which says that ordinary bodies satisfy this condition. This is what More’s opponents would deny. But More’s position was, once again, that an omnipotent God ought to be able to complete the process *even if* it involved an infinite number of steps. ‘For though we should acknowledge that *Matter* were discernible *in infinitum*, yet supposing a Cause of Infinite distinct perception and as Infinite power, (and God is such) this Cause can reduce this capacity of infinite discernibleness of *Matter* into act, that is to say, actually and at once discern or disjoin it into so many particles as it is discernible into.’³¹ With this additional premise in place, the conclusion

²⁷ *An Antidote Against Atheism*, pp. 14–15 (bk. 1, ch. 4, §2). Having referred to the same geometrical and optical paradoxes as in *Psychathanasia*, More also repeated their proofs in the scholia to this passage, pp. 143–144.

²⁸ *The Immortality of the Soul*, p. iii (The Preface, §3).

²⁹ *Ibid.*

³⁰ *The Immortality of the Soul*, p. 20 (bk. 1, ch. 6, §5). The Oxford English Dictionary prefers to spell the term as ‘indiscernibility’, and it lists ‘indiscernibility’ as an obsolete form: but, since the word itself is pretty obsolete anyway, we might as well follow the spelling that More himself invariably employed.

³¹ *The Immortality of the Soul*, p. 20 (bk. 1, ch. 6, §5).

of the argument should then follow. Bodies are certainly susceptible to actual division, at least to some degree. So, just as long as we allow that it is possible for a process of actual division actually to arrive at a point than which it can go no further, at least if it is conducted by omnipotent power, then the parts that will remain upon the completion of such a process will certainly need to be indiscernible. And, since no amount of unextended mathematical points could ever generate an extension, these ultimate parts will additionally need to be extended, and hence will qualify as atoms. In fact, since More had by now decided that ‘if a thing *be* at all, it must be *extended*’ (something that he had previously held in only an equivocal and potentially misleading sense: see Chap. 5), he added that a mathematical point was a ‘pure Negation or Non-entity’ anyway.³²

More did cloud the issue somewhat, by describing atoms as ‘infinitely little’ (and also as ‘perfect parvitudes’). But, as we just saw, he was also content to state quite explicitly that they really did ‘have indeed real extension’. The expression ‘infinitely little’ would appear to have been merely a flourish to designate this impossibility that they should have been any smaller than they actually were. The expression could not be applied to a mathematical point, for a pure non-entity could not be ascribed any properties at all; it could not be little or big or anything else, infinitely or otherwise. If it was going to denote anything at all, it could only denote the lower limit of size that *real* things could have, whatever finite amount that might be. Thus, in More’s own words, responding to the objection that, ‘[i]f they were infinitely little, there would be need of an infinite number of them to constitute a Body of this or that Bigness’, he denied that this conclusion followed, on the grounds that in the so-called infinite littleness of atoms ‘only consists an infinite *real* littleness, that it is so little it cannot possibly be less’ (emphasis added).³³ Indeed, he went further and now firmly committed himself to a position about which he had formerly hedged his bets. The process of division that would yield these atoms was not in fact an infinite process after all. It could actually be completed after only a finite number of steps: ‘I deny that there is need of infinite Divisions to reduce any Portion of Matter unto this state; but contend that God is able to do it by finite ones.’³⁴

And so More’s atoms really were extended, and he allowed that this did entail that different parts (as it might be, the right hand side and the left hand side) could be considered separately within them by the intellect. But he continued to insist that this rational distinction did not entail real divisibility, i.e. discernibility: ‘one and the same thing, though intellectually divisible, may yet be really indiscernible.’³⁵ Even though it was possible to *conceive* things even smaller than these ‘infinitely little’ atoms, no such things could ever actually exist in reality. God could, indeed, annihilate an atom altogether if he so chose, but not even he could divide one in such a way as to produce a pair of smaller particles. As far as More

³² *The Immortality of the Soul*, p. iii (The Preface, §3).

³³ *The Immortality of the Soul*, pp. xiv, xv (The Preface, §3, note).

³⁴ *The Immortality of the Soul*, p. xv (The Preface, §3, note).

³⁵ *The Immortality of the Soul*, p. 20 (bk. 1, ch. 6, §5).

was concerned, this really would involve a logical contradiction. It might be hard to come up with a non-arbitrary figure for the actual lower limit to size—and More never attempted to give a specific figure for it—but there had to *be* some such lower limit.

By treating the division of an atom as a *metaphysical* impossibility, one that *not even* God could overcome, More's atomism actually took a much stronger form than that of most other atomists in the period. Most modern atomists (like, for instance, Gassendi) maintained that such division was merely a *physical* impossibility, one that *only* God could overcome. Their classical forebears, of course, were less inclined to believe in an omnipotent God at all, meaning that this particular question simply did not arise for them. So, on this point, More was largely on his own. One very rare example of somebody who did come independently to the same conclusion was Gérauld de Cordemoy (1626–1684), who also treated such division as a metaphysical impossibility: but that was for quite different reasons of his own, grounded in the notion of substantiality as such.³⁶

Here and there, though, we can find a few clear indications of More's influence on other authors. In particular, the use of the word 'indiscerpible' in place of 'indivisible' is already sufficient to suggest a specifically Morean influence. More's use of the word was in fact the very first one that the editors of the Oxford English Dictionary could trace; and Koyré and Cohen, specifically examining the philosophical use of this word, could not find any earlier ones either.³⁷ (As we will have occasion to see several more times before the present work is through, More was rather fond of making up new words). In particular, a Morean influence does seem plausible in the case of Jonathan Edwards (1703–1758), around 1720: 'All bodies whatsoever, except atoms themselves, must of absolute necessity be composed of atoms, or of bodies that are indiscerpible, that cannot be made less.'³⁸ In the case of Newton's *Questiones* (mid-1660s), we find not only the word but the name: 'That matter may be so small as to be indiscerpible the excellent Dr. More in his book of the soul's immortality has proved beyond all controversy.'³⁹ It should be acknowledged that Walter Charleton's *Physiologia Epicuro-Gassendo-Charltoniana* (1654), and, through it, Pierre Gassendi's own work, was at least as

³⁶ See Ablondi 2005, p. 27–29. Cordemoy did not actually use the terminology of 'atoms', but instead drew a distinction between imperceptible and indivisible 'bodies', and the sensible and divisible 'matter' that arose out of their juxtaposition. Regarding the former, he wrote: 'in each particular body, the extremities and the middle are but the same substance, which cannot be extended without necessarily having all of these parts: so that, being no different from the body, they also cannot be separated from it, and by this means it will remain indivisible.' Cordemoy 1666, pp. 7–8 (discours 1).

³⁷ Koyré and Cohen 1962, pp. 123–126.

³⁸ Edwards 1980, p. 208 ('Of Atoms', prop. 1). See also the editor's introduction at pp. 63–65. It is important to note, however, that Edwards did proceed to explicate the notion of indiscerpibility (which he spelt 'indisserpibility' in the manuscript) as pertaining to an object that no *finite* power could divide: More's own notion was considerably stronger than that.

³⁹ Newton 1983, p. 341. I am here using the expanded text provided by the editors.

great an influence on Newton's early thinking on atoms as anything that he might have picked up from More. Indeed, it was almost certainly a greater one, and not only here but on many other issues too. But that More was *an* influence seems incontestable.⁴⁰

Even after *The Immortality of the Soul*, More's commitment to atomism never wavered. His theory remained just the same: but it was also embedded within a larger discussion that is important in its own right, so I shall postpone any close examination of these later discussions to the next chapter below. But the one thing that did change was his terminology. In the *Appendix to the Defence of the Philosophick Cabbala*, added to *Conjectura Cabbalistica* in the 1662 edition of *A Collection of Several Philosophical Writings*, More discussed 'perfect parvitudes', one of the alternative expressions he had already used for atoms in *The Immortality of the Soul*, and he expressly referred his reader back to the description he had given in that work. However, More no longer used the word 'atom'. Instead, his new official name for these perfect parvitudes was 'physical monads'.⁴¹

In his earlier writings, More had reserved the term 'monad' for God. In the poems, God was called 'Nature Monadicall' and 'unmovèd *Monad*'.⁴² The Monad was there explained as 'an embleme of the Deity: And the *Pythagoreans* call it *Theos*, God.'⁴³ But God had so many other names that he was scarcely going to miss this one. And the term (which derived, of course, from the Greek term for unity) did rather suit the nature of atoms, given that they were the fundamental *units* out of which bodies were constructed. From 1662 onwards, More distanced himself from the term 'atom', riddled as it was with connotations of irreligious Epicureanism, and he shifted his use of the Pythagorean term 'monad' to refer not to God but to the tiniest fragments of physical matter. Thus, in *Enchiridion metaphysicum*, More defined a 'physical monad' in precisely the same terms as those in which he had formerly defined atoms: 'By physical monads I understand particles so minute that they cannot be further divided or discerped into parts.'⁴⁴ When writing directly against someone (like Richard Baxter) who happened to prefer the term 'atom', More himself might still occasionally drop it into the discussion, or at least refer indifferently to 'an *Atom* or *Physical Monad*'.⁴⁵ But in general, and especially in his own technical writings, 'physical monad' became his preferred term from 1662 onwards.

⁴⁰ Newton 1983, *passim*: see the various references both in Newton's text and in the editors' commentary, as listed in the index. Also see Westfall 1962, p. 174; Westfall 1971, pp. 327–328.

⁴¹ *Conjectura Cabbalistica*, pp. 189–191 (*Appendix to the Defence of the Philosophick Cabbala*, ch. 9).

⁴² *The Complete Poems*, pp. 54a–b, 77a (*Psychathanasia*, bk. 1, cant. 3, sts. 23–24; bk. 3, cant. 3, st. 12).

⁴³ *The Complete Poems*, p. 163a (The Interpretation General: 'Monad').

⁴⁴ *Enchiridion metaphysicum*, vol. 1, p. 71 (ch. 9, §3).

⁴⁵ See, for instance, *Saducismus Triumphatus*, pp. 224–226 (*An Answer to a Letter of a Learned Psychopyrist*, §17); *Two Choice and Useful Treatises*, second part, pp. 211–212 (*Annotations upon the Discourse of Truth*, The Digression).

3 The Void

Having seen that More was wholeheartedly committed to the existence of atoms, one might naturally imagine that he would have been equally committed to the existence of their traditional partner in the classical Democritic or Epicurean system, the void. But this was not the case. More was always keen to insist that it was *possible* for a vacuum to exist; but he was equally keen to insist that no such thing actually did exist in the natural world. More's physical universe contained a multitude of minute and indivisible ('indiscernible') atoms ('physical monads'): and yet these were all packed tightly together to form a plenum.

More argued for this two-pronged position in his correspondence with Descartes. (We will come to the position expressed in his earlier philosophical poems later). Descartes, for his part, had not only declared that there was no such thing as vacuum in reality, but had also insisted that it was utterly impossible for there to be one. A vacuum, by definition, would be an extension that did not contain any body. But, given that the essence of body was itself being defined directly in terms of extension, this situation was automatically ruled out. The supposedly 'empty' space of the vacuum, given that it was extended, would qualify in Cartesian terms as just another body—maybe an imperceptible, perfectly fluid body, but a body nevertheless.

In a particularly notorious statement of his position, Descartes had written: 'if anyone asks what would occur if God removed the whole body contained in any vessel and did not permit anything else to take the place of the body which had been removed, the answer will have to be that the sides of the vessel would thereby become contiguous to each other. For, when there is nothing between two bodies, they must necessarily touch each other.'⁴⁶ There is certainly room to read this passage as if what Descartes was imagining was that the external dimensions of the vessel were remaining just where they had been, even though—apparently through some miraculous violation of the laws of geometry—the internal dimensions had been removed. Indeed, there were people in the seventeenth century who did read Descartes in that way.⁴⁷ But More was not among them, and neither was he persuaded by Descartes' contention. More took Descartes to be meaning that the sides of the vessel actually would *move inwards* to meet one another, i.e. that the vessel would necessarily collapse. But he suggested that this claim actually seemed to contradict Descartes' own principles: 'for', he asked, 'if God impresses motion onto matter, as you earlier claimed, could he not push against the sides of the vessel and inhibit their coming together?'⁴⁸

⁴⁶ Descartes 1991, p. 48/AT 8A:50/CSM 1:231 (pt. 2, §18).

⁴⁷ One such example was Nathaniel Fairfax in the 1670s, who responded with an even more surprising alternative suggestion: that the sides of the evacuated vessel would actually get *further apart*. When there had been a space between the sides, it would have been possible to traverse this space in order to get from one side to the other along a straight line. But, without anything there to traverse, the only way to get from one side to the other would be to take the long way round, around the perimeter. See Fairfax 1674, pp. 91–95.

⁴⁸ *Epistolae quatuor*, p. 63/AT 5:240–241 (More to Descartes, 11 December 1648).

In response, Descartes made it explicit that, yes, he had indeed been meaning to suggest that, when the contents of the vessel were removed, ‘another body, or the sides of the container, should move into its place’. But he insisted that this position was entirely consistent with his general theory of motion and, in particular, of the circularity thereof.⁴⁹ Descartes regarded bodies as necessarily impenetrable, in the sense that no two bodies could coexist in the same place at the same time. (We will come back to this point in §5 below). But a consequence of this was that, when one body moved into a certain place, whatever body happened to be already there would necessarily need to move out of it, in order to make way for its entry. That body would then displace another adjacent body, and that one would displace another, and so on until the chain—rather than carrying on indefinitely—would eventually loop back to its starting point, the place of the first body being filled by the one behind it, just as soon as it abandoned it. This, in Descartes’ opinion, was why the sides of the vessel would need to move inwards. They would be forced inwards by the pressure of the surrounding matter, matter which had itself been impelled into motion by other matter adjacent to it, that further matter having in turn been required to make way for the original contents of the vessel when God caused those to start moving.

However, More had not been suggesting that there would be no tendency in the sides of the vessel to move inwards, and he did in fact accept Descartes’ theory of the circularity of natural motions. He agreed with Descartes that the motion of one body would indeed influence that of a whole looping chain of other bodies in the manner described. But the real question was not *whether* one body’s motion would affect the motion of another, but *how*? Even if we could establish a priori, with apodictic certainty, that *something* would be forcing the sides of the vessel to move inwards in this case, that still would not tell us *what* was doing so, or (crucially) whether there might yet be some scope for resisting its influence. The necessity that there should be a force did not automatically entail that the force should be necessary. And More’s attitude was that the only coherent way to understand the communication of motion between adjacent bodies was in terms of a *natural, physical* influence. He could not see any reason why it should rise to the level of a metaphysically necessary compulsion.

After all, as Descartes himself admitted in the *Principles*, (i) a ‘real distinction’ held between different bodies. Descartes had claimed that although there was room to doubt whether corporeal substance existed at all, we could at least be certain that, ‘if it exists, each part of it which can be delimited by our mind is really distinct from the other parts of the same substance’.⁵⁰ This was, after all, part of why Descartes was so confident about the indefinite divisibility of matter: the fact that its parts were really distinct from one another entailed that they could in principle exist apart from one another. For it was, for him, also a fundamental principle that (ii) when two things were really distinct, God (at least) could maintain one without the other. Although Descartes would more usually call upon this principle in the context of the

⁴⁹ *Epistolae quatuor*, p. 69/CSMK 363/AT 5:272–273 (Descartes to More, 5 February 1649).

⁵⁰ Descartes 1991, p. 27/AT 8A:28/CSM 1:213 (pt. 1, §60). The translators bracket the words ‘which can be’, to signal that these are drawn from the 1647 French edition: AT 9B:51.

distinction between bodies and minds, with a view to defending the immortality of the latter, it would equally seem to apply in the case of two distinct bodies. But then, as Descartes further pointed out in the very same portion of the *Principles*, (iii) when two objects were really distinct, the distinction between a mode of one and a mode of the other should itself be regarded as real; and (iv) motion was a mode of a body.⁵¹ Putting these four theses together, it would clearly seem to follow that God's introduction of motion into one body ought to be logically independent of his introduction of motion into another. That is, he ought to be able to introduce a motion into one body—the contents of the vessel, for instance—while maintaining a state of rest in all other bodies, including the sides of the vessel. But for him to move one body out of a place, while simultaneously ensuring that nothing else moved into it, would be for him to produce a vacuum. Conversely, for him to move one body *into* a place, while simultaneously maintaining a state of rest in the body that was already there, would be for him to bring about corporeal penetration. And yet Descartes had insisted that both of these things were not merely unnatural but downright impossible, *even* by the omnipotence of God himself.

It is worth acknowledging that this particular line of argument is not actually one that More rehearsed in any detail: but its conclusion is one that he would have been likely to appreciate.⁵² He certainly did not regard the inward motion of the sides of Descartes' vessel as a logical consequence of the removal of its contents. As far as he was concerned, the sides of Descartes' vessel would indeed be forced together; for, notwithstanding his criticisms of Descartes, More *was* a plenist. But his own view was that they would not come together by the kind of *logical* necessity that *not even* God could oppose, but merely by a *natural* necessity, one that *only* God could oppose.⁵³ Other things being equal, with nothing to counteract the physical pressure on the sides of the vessel from the impinging matter around them, More agreed that the vessel would certainly collapse. But he could not see any reason to think that this *natural* force could be so utterly irresistible that even God himself could not *super-naturally* withstand it. As the creator and conserver of the corporeal contents of the vessel, he presumably had the power not only to move them but actually to annihilate them altogether if he so chose. But, if he could do something as radical as that, then surely it ought to be child's play for him simply to hold the sides apart. The sides would then be remaining at just the same distance from one another as they had always been, but this distance would define a real void extension.

⁵¹ Descartes 1991, pp. 27–28/AT 8A:29–30/CSM 1:214 (pt. 1, §61).

⁵² In a later defence of Descartes' position in this area, Antoine Le Grand anticipated an imaginary opponent's objection along the lines of More's, and he expressed this objection in a way that got somewhat closer to the heart of the matter—namely, the real distinction between different bodies, and the logical independence of their motions that would seem to follow from this. 'But you will say, that the *Body* which is conceiv'd to be in the *Chamber* or *Vessel*, is something different from the sides that surround it, and therefore the one may be separated from the other by the *Divine Power*, forasmuch as we clearly and distinctly understand the one, not to be the other.' Le Grand 1694, p. 113b (bk. 1, pt. 4, ch. 13, §10). Needless to say, the Cartesian Le Grand was not moved by the objection he was voicing on behalf of his imaginary opponent: see n. 54 below.

⁵³ *Epistolae quatuor*, p. 63/AT 5:241 (More to Descartes, 11 December 1648).

To this, Descartes had no convincing response—none that satisfied More, at any rate. Ultimately, Descartes could do little more than resort to claiming that such profound questions about the limits of God’s omnipotence exceeded the finite capacities of the human mind. Rather as in the case of whether God could complete an infinite process, Descartes was unwilling to declare positively that God could not do something like hold the sides of the vessel apart, when there was nothing corporeal between them. But what he did continue to insist was that there really was a logical contradiction here.⁵⁴ This form of impossibility was the strongest that it was possible for our own logically constrained human minds to grasp, and it went way beyond mere natural, physical impossibility. But the hypothesis did not strike More as contradictory. If anything, these considerations just served as one great big *reductio ad absurdum* of Descartes’ analysis of body in terms of extension alone. A vacuum, by definition, was an incorporeal extension. Therefore, if such a thing turned out to be even so much as logically possible—regardless of whether it actually existed anywhere in the natural world—it followed that extension alone could not exhaust the definition of body after all.

Elsewhere, More came up with several more thought-experiments of his own, to show that an empty space implied no logical contradiction. In a 1651 letter to Anne Conway, for instance, More invited her to suppose two perfectly flat and rigid surfaces, laid against one another, and then to imagine the top surface lifted off the bottom. Air would no doubt rush rapidly in from the sides; but no corporeal motion could be absolutely instantaneous: so *at the very moment* when these perfectly flat surfaces were separated, before the air had time to make its way all the way in, there would need to be a vacuum in the space between the centres of the two surfaces.⁵⁵ Alternatively, he asked her to suppose that God had created nothing in the universe except for just two solid globes, touching one another at a single point. On the face of it, there was nothing logically incoherent about this scenario. But then, from the premise that these were indeed globes, it would follow that there was a distance of one diameter between the poles of their parallel axes. And, from the premise that God had created nothing but these two globes, it would follow that this was a distance in emptiness.⁵⁶

And yet for all that, and as I have said, More did not believe that there actually was any vacuum in the natural world. God did *not* just create two solid globes and nothing else; and no actual body had a *perfectly* flat and rigid surface. Now, in his correspondence with Descartes, More did claim that a supposedly ‘void’ space

⁵⁴ *Epistolae quatuor*, p. 68/CSMK 363/AT 5:272 (Descartes to More, 5 February 1649). Le Grand’s response to the objection I quoted in a note just above was almost identical.

⁵⁵ *Conway Letters*, p. 487 (More to Conway, 5 May 1651). See also *Remarks upon Two Late Ingenious Discourses*, pp. 149–150 (remark 38, upon *Difficiles Nugae*, ch. 17).

⁵⁶ *Conway Letters*, pp. 487–488 (More to Conway, 5 May 1651). More later presented similar or identical arguments in the Appendix to *An Antidote Against Atheism*, pp. 200–201 (Appendix, ch. 7, §§4–5); and in *Enchiridion metaphysicum*, vol. 1, pp. 38, 51–52 (ch. 6, §2; ch. 7, §13). Broadly similar arguments had already been presented in some Medieval discussions of these issues, e.g. by Henry of Ghent: see Grant 1981, pp. 124–125.

would still be filled with the divine presence, even if there was no corporeal matter there. Such a remark could perhaps give rise to the thought that his denials of the actual existence of vacua might not need to be taken at face value. One might suppose that, on those occasions when he did suggest that nature contained no such thing as empty space, this would still remain perfectly compatible with the idea that a place could yet be empty of all *bodies*, for its ‘fullness’ would consist solely in a spiritual mode of presence. But such a supposition would be quite mistaken. Throughout his career, More did indeed maintain that the divine substance was omnipresent; but, *in addition*, he also believed that the natural world was truly a plenum in the proper sense, not just full of entities in general but full of bodies in particular. As we have just seen in the case of Descartes’ empty vessel, even as More denied that the sides would have to come together by a logical necessity, he did nevertheless acknowledge that they would be forced to do so by natural necessity.

Elsewhere in that same correspondence with Descartes, More cited a theological reason for this commitment to a corporeal plenum: ‘surely the divine fecundity, which is nowhere idle, has produced matter in every place, missing out not even the very tiniest of gaps.’⁵⁷ On other occasions, in defence of this commitment, he directly addressed the new experimental research—the Torricelli experiment and the air-pump work—that was leading some people towards a belief in vacua. He first alluded to such experiments in 1659’s *The Immortality of the Soul*.⁵⁸ ‘Rash fancies and false deductions from misunderstood Experiments have made some very confident, that there is a *Vacuum* in Nature’, he complained. But he described this conclusion as a ‘thing very fond and irrational’: ‘let *Matter* be what consistency it will, as thin and pure as the flame of a candle, there is not less of *corporeal Substance* therein than there is in the same dimensions of Silver, Lead, or Gold’.⁵⁹ In his subsequent writings, he looked in more depth at some of the specific details of this experimental research. For instance, in the 1676 *Remarks upon Two Late Ingenious Discourses*, written in response to Matthew Hale’s discussions of such experiments, More examined the space in Torricelli’s tube, and he decided that aether or the subtler parts of the air had to be passing through the pores of the glass to take the place of the mercury that had hitherto occupied that space.⁶⁰ Better that this should happen, he felt, than that it should be left devoid of matter altogether. His attitude to the air-pump was precisely the same. In *Enchiridion metaphysicum*, he interpreted the findings of Robert Boyle’s *New Experiments Physico-mechanicall touching the Spring of the Air* in terms of the insinuation of subtle, aethereal matter into the

⁵⁷ *Epistolae quatuor*, p. 78/AT 5:309 (More to Descartes, 5 March 1649).

⁵⁸ He did also discuss Boyle’s experiments in *An Antidote Against Atheism*, bk. 2, ch. 2, but not until the 1662 revised edition of that work. The sections numbered §§7–13 were all new in that edition (pp. 43–46). See §§8–13 in particular.

⁵⁹ *The Immortality of the Soul*, pp. 166, 167 (bk. 3, ch. 2, §§6, 8).

⁶⁰ *Remarks upon Two Late Ingenious Discourses*, pp. 98–100, 100–101, 104, 132 (remarks 17, 18, 20, 33, upon *Difficiles Nugae*, chs. 8, 9, 16).

cylinder, to take the place of the air that had pumped out—for, as he said yet again, ‘all things are full of bodies.’⁶¹ In the same work, he also recalled his earlier debate with Descartes about the empty vessel, and he referred to Descartes’ contention that not even divine omnipotence could produce a space that was not corporeal. He pointed out that he had always deemed this opinion to be false, and that he now felt compelled to ‘attack it more sharply than usual as being little pious.’⁶² More’s position was thus clear and consistent throughout his career, with respect to *both* of these two points: first, that a corporeal vacuum was possible; but, second, that no such thing actually existed within the natural world.

Such a state of affairs might, however, exist *outside* the natural world.

4 The Extension of the Universe, and Extra-mundane Void

More’s attitude to the finiteness or otherwise of the corporeal universe made not one but two dramatic reversals during the course of his career. In his first philosophical poems of 1642, he was confident that it had to be finite. This was, after all, the more orthodox opinion, the one with the greater weight of tradition behind it. As we observed earlier, Medieval debate in this area had centred around the question of what (if anything) things might be like beyond the limits of a finite corporeal world—whether, and in what sense, some sort of ‘imaginary space’ might be postulated there. But the notion that the corporeal world might not actually have had any limits at all was, to all intents and purposes, absent from the Scholastic literature. Even outside the Scholastic tradition, although the notion of an infinite universe might have appealed to figures like Nicolas of Cusa and Giordano Bruno, More’s own more immediate inspirations still did not like it. Plotinus, for instance, expressly rejected the possibility of infinite extension: ‘If this “infinite” [of Anaximander] means “of endless extension” there is no infinite among beings; there is neither an infinity-in-itself (Infinity Abstract) nor an infinity as an attribute to some body.’⁶³ Ficino did the same, remarking that circular motion was the only kind of motion that could be sempiternal on the grounds that other kinds of locomotion ‘reach a limit beyond which they may not proceed, since nowhere is there infinite space.’⁶⁴ The notion of infinite worlds in an infinite cosmos was, like the notion of a void, so associated with Democritus and Epicurus that, other things being equal, More was unlikely to find much appeal in it. Much as he might have been prepared to countenance atoms, he still had little affection for the Democritic or Epicurean systems

⁶¹ *Enchiridion metaphysicum*, vol. 2, p. 23 (ch. 12, §4).

⁶² *Enchiridion metaphysicum*, vol. 1, p. 44 (ch. 6, §11).

⁶³ Plotinus 1992, p. 123 (enn. 2, tr. 4, ch. 7).

⁶⁴ Ficino 2001–2006, vol. 1, p. 245 (bk. 3, ch. 2). See also p. 311 (bk. 4, ch. 2). More generally, on the finiteness or otherwise of the cosmos, from Nicholas of Cusa to More and beyond, see Koyré 1957.

more generally, infected as they were with materialist irreligion. And so, in the 1642 poem *Psychathanasia*, as he discussed how the world could not have been made from infinity but needed a definite temporal beginning, he also inserted a passing observation that ‘extension / That’s infinite implies a contradiction.’⁶⁵ But then he read Descartes, and he began to have second thoughts about this.

At the beginning of part three of the *Principles*, Descartes had written:

we must begin with those phenomena which are the most universal and on which the rest depend, namely, the general structure of this whole visible world. In order to reason correctly about this matter, we must pay special attention to two things. First, remembering God’s infinite power and goodness, we must not be afraid of overestimating the greatness, beauty, and perfection of His works; rather, we must beware of accidentally attributing to them any limits of which we do not have certain knowledge, and of thus seeming to have an inadequate awareness of the Creator’s power.⁶⁶

More considered this passage important enough to reprint it at the beginning of *Democritus Platonissans*, alongside a passage from Lord Herbert of Cherbury where the latter had written: ‘There’s Nothing more common amongst Authours, then so to measure all things according to the Model of their own senses, as either proudly or rashly to reject the things which may in infinite spaces exist above us.’⁶⁷ More first published this new poem separately in 1646, and then incorporated it into the 1647 collected edition of his *Philosophicall Poems*. In the 1646 pamphlet, he introduced the poem by including, besides this pair of quotations, the closing stanzas of *Psychathanasia*, Book 3, Canto 4, the section just quoted wherein he had rejected the possibility of infinite extension. In the 1647 edition, it was immediately after this same passage that he interpolated the new work, in both cases explicitly presenting it as an appendix and a corrective thereto.⁶⁸

On reading Descartes, More had begun to feel that the best demonstration of the infinity of God’s creative power would come from a universe that was indeed infinite in both extension and duration. He had always acknowledged that a finite world was thereby an imperfect world, and he now recognised that this was a problem in urgent need of attention, lest it should detract from God’s supreme providence and omnipotence. Previously, his solution had been to lay the blame for any imperfections in the world not at God’s door but at that of the matter which underlay the universe. As he recalled in 1646, he had tried to satisfy ‘the curiosity of the Opposer, by shewing the impossibilitie in the Creature, and not want of goodness in the Creatour to have staid the framing of the Vniverse.’ (We will return to this point in the next

⁶⁵ *The Complete Poems*, p. 87a (*Psychathanasia*, bk. 3, cant. 4, st. 35).

⁶⁶ Descartes 1991, p. 84/AT 8A:80/CSM 1:248 (pt. 3, §1).

⁶⁷ From Herbert’s *De causis errorum*, here as translated in Ward 2000, p. 217.

⁶⁸ In *Psychozoia* More had again implied the finitude of the corporeal universe, conjecturing that its figure was a round one (*The Complete Poems*, p. 15a: cant. 1, st. 19). In the 1647 edition, More added a note on this passage, although there he expressed a less firm commitment to the world’s infinity than he did in *Democritus Platonissans* itself: ‘It is too too probable the world is round if it be not infinite, the reasons be obvious; but to conclude it finite or infinite is but guesse, mans imagination being unable to represent Infinity to Reason to judge on’ (p. 139a).

chapter below). ‘But now’, he continued, ‘roused up by a new Philosophick furie, I answer that difficultie by taking away the Hypothesis of either the world or time being finite: defending the infinitude of both.’⁶⁹ And so, with this new approach, More proceeded to modify and develop some of the doctrines of *Psychodia Platonica* in new ways, and to demolish some others altogether.

Now, as we have already noted, Descartes himself had actually been a little wary about ascribing infinity to any of God’s works, whether the extension of the universe, the number of its stars, or anything else. Genuine infinity exceeded the capacities of our finite minds, he argued, so that—excepting the singular case of God himself, whom, uniquely, we could clearly and distinctly understand to be infinite—it would be unreasonably presumptuous for us to make any bold pronouncements on such abstruse matters. Nevertheless, what Descartes did find was that, no matter how great an extension or a number he imagined, he could still conceive the possibility of an even greater one; and he additionally felt that it would be improper for us to impose any limitations at all on God’s creative power. Consequently, he decided that the magnitude of the world and the number of its stars should at least be declared ‘indefinite’.⁷⁰ Over in England, however, Descartes’ eager new supporter felt no such intellectual humility. Responding to this ‘infinite’/‘indefinite’ distinction in the epistle to the reader of *Democritus Platonissans*, More wrote: ‘Nay and that sublime and subtile Mechanick too, *Des-Chartes*, though he seem to mince it, must hold infinitude of worlds, or which is as harsh, one infinite one. For what is his *mundus indefinitè extensus*, but *extensus infinitè*?’⁷¹

More saw in Descartes’ system a revival of the Epicurean doctrine of infinite worlds: but the thing that it took Descartes’ writings to persuade him of was that such a system could be used to provide a solid support for sound Christian theology after all, just as long as it was combined with a proper spiritualism. Even as More continued to denounce the Democritics and Epicureans for the other components of their system, he was now prepared to acknowledge that their physics really did have quite a lot going for it:

And to speak out; though I detest the sect
Of *Epicurus* for their manners vile,
Yet what is true I may not well reject.
Truth’s incorruptible, ne can the style
Of vitious pen her sacred worth defile.⁷²

The key was to take the good bits of the Epicurean or Democritic—or, indeed, Cartesian—philosophy, and to Platonise them, as More indicated in the title of *Democritus Platonissans, or, An Essay upon the Infinity of Worlds out of Platonick Principles*.

⁶⁹ *The Complete Poems*, p. 90b (*Democritus Platonissans*, To the Reader).

⁷⁰ Descartes 1991, pp. 13–14/AT 8A:14–15/CSM 1:201–202 (pt. 1, §26).

⁷¹ *The Complete Poems*, p. 90a (*Democritus Platonissans*, To the Reader). On the ‘indefinite’/‘infinite’ distinction in Descartes and More (which also came up in their correspondence), see Koyré 1957, pp. 104–109, 114–121.

⁷² *The Complete Poems*, p. 93a (*Democritus Platonissans*, st. 20).

Thus, to prove the infinity of extension, it was from Lucretius that More borrowed a *reductio ad absurdum*: ‘its extension is infinite,’ he wrote, ‘as *Lucretius* stoutly proves in his first Book, *De rerum natura*.’⁷³ The argument basically ran as follows. Supposing space to come to an end somewhere, More invited the reader of *Democritus Platonissans* to imagine an archer at the edge of space, trying to shoot out an arrow; or, returning to the same argument in his 5 March 1649 letter to Descartes, a man trying to thrust out a sword.⁷⁴ If he could not force it out beyond this supposed edge, this would surely mean there had to be something solid out there that was actively resisting its progress. But such solidity could only pertain to something corporeal. There was, therefore, more body out there, and it would turn out that the man had not really been at the edge of the spatial universe after all. But, if the arrow or sword *could* be forced out, then it would seem that there must have been some space there, laid out ready to receive the arrow or sword’s corporeal extension into its own penetrable dimensions. Again, he could not have been at the edge of space. Therefore, there could be no such edge. More concluded that extension had to be infinite.

Within this infinite space, More postulated an infinite number of celestial bodies. The ‘heart and kernal’ at the centre of our own world was the Sun, around which Mercury, Venus, Earth, Mars, Jupiter and Saturn all revolved.⁷⁵ Strictly speaking, Saturn’s orbit marked the boundary of *our* world. But then, dotted about further out in space, there were other worlds much like this one; and, indeed, this space being infinite, infinitely many of them. ‘I will not say our world is infinite,’ wrote More, ‘But that infinity of worlds there be’.⁷⁶ The stars, which seemed as little or nothing to us, were in fact suns just like our own Sun. In a curious inversion of Olbers’ Paradox, which suggests that cannot be infinitely many stars on the grounds that the whole sky would then be light, More argued that in fact there *had to be* infinitely many stars, for otherwise the universe would be infinitely dark. With each individual star contributing only a finite amount of light to the universe, if there were only finitely many of them then their collective light would dissipate to nothing when dispersed through the infinity of space. And, around these infinite suns, infinitely

⁷³ *The Complete Poems*, p. 142b (notes upon *Psychozoia*, cant. 2, st. 12). For Lucretius’ own presentation of the argument, see Lucretius 1994, pp. 33–34 (bk. 1, lines 968–985). Lucretius was, however, neither the first nor the last philosopher prior to More to use this argument. It seems to have originated with Archytas the Pythagorean; it had first become known in the West through William of Moerbeke’s 1271 translation of Simplicius’s commentary on *De caelo*; and it cropped up fairly frequently in seventeenth-century discussions. On the history of the argument (and for some of the objections that were raised against it), see Jammer 1969, pp. 9, 12–13; Grant 1976, p. 143; Grant 1981, pp. 106–108; Sorabji 1988, pp. 125–129; Pyle 1995, pp. 79–80; and Lennon 1993, p. 278. For a couple of examples of seventeenth-century uses, see Guericke 1994, pp. 96–97 (bk. 2, ch. 6) or Locke 1975, pp. 175–176 (bk. 2, ch. 13, §21; cf. Locke 1936, p. 95, entry for 16 September 1677).

⁷⁴ *The Complete Poems*, p. 94b (*Democritus Platonissans*, sts. 37–38); *Epistolae quatuor*, p. 80/AT 5:312 (More to Descartes, 5 March 1649).

⁷⁵ *The Complete Poems*, p. 93a–b (*Democritus Platonissans*, sts. 21–22, 24).

⁷⁶ *The Complete Poems*, p. 93a (*Democritus Platonissans*, st. 21).

many earths ran about in orbit, each one containing stones, plants, animals and even men, much as our own Earth does.⁷⁷ ‘These with their suns I severall worlds do call, / Whereof the number I deem infinite.’⁷⁸

And yet this was still not quite like the classical Democritic or Epicurean position, on account of More’s resistance to their theory of the void. He was not prepared to countenance a truly empty space between these various worlds or beyond any particular one: ‘if any space be left out unstuffed with Atoms,’ he wrote in reference to Descartes, ‘it will hazard the dissipation of the whole frame of Nature into disjointed dust; as may be proved by the Principles of his own Philosophie.’⁷⁹ The overall picture in *Democritus Platonissans* was not merely one of an infinitely extended universe, but of an infinitely extended plenum.

It should be noted that there is a complication here, in that More did several times use the *language* of the void. Even as he claimed that no part of this infinite space was left unstuffed with atoms, he also referred to it as ‘empty space’, ‘infinite void space’, ‘this wide and wast Vacuity’, ‘hollow Voidnesse’, and by other similar names.⁸⁰ How, one might very well wonder, could he have it both ways?

The key lies in a distinction that More was drawing between individual atoms and the macroscopic bodies that were compounded out of them. Although every part of space did indeed contain atoms, those atoms might not always be united to one another. Certain regions of the universe could therefore be void in the sense that they were devoid of any *compound* bodies. In creating the universe, God would first produce an infinity of atoms, and he would lay them out, side by side, generating infinite extension out of their juxtaposition. But it would then take a further act for bonds to be established among certain clusters of atoms, in order for stars and planets, and animals and plants, and all of the other macroscopic objects that we regard as bodies to be produced. By and large, More tended to reserve the terms ‘corporeal’ or ‘body’ for these compound objects alone. And, understanding such terms in this restrictive sense, it was perfectly reasonable for More to refer to a homogeneous mass of disconnected atoms as a vacuum. But a vacuum in *this* sense was utterly unlike the void of the ancient atomists, which was defined not only in terms of the absence of compound bodies, but also—indeed, far more fundamentally—in terms of the absence of individual atoms. *That* sort of void was firmly ruled out. There was none within the universe and, given that the universe was infinite, there could be none outside it either.

I am going to have more to say about the physical/metaphysical system of *Democritus Platonissans* in what is to come. But, pushing forward through More’s works, what we find is that he subsequently came to feel that the ‘new Philosophick furie’ that had roused him up to postulate an infinite universe in 1646 might actually

⁷⁷ *The Complete Poems*, pp. 92b–93a, 93a–94a (*Democritus Platonissans*, sts. 18–19, 23–32).

⁷⁸ *The Complete Poems*, p. 93b (*Democritus Platonissans*, st. 26).

⁷⁹ *The Complete Poems*, p. 90a (*Democritus Platonissans*, To the Reader).

⁸⁰ *The Complete Poems*, p. 94b–95b (*Democritus Platonissans*, sts. 39, 42, 45, 50).

have been leading him astray after all.⁸¹ In his later writings, he drew back from this position. In the *Praefatio generalissima* to his 1679 Latin *Opera omnia*, More recalled his writings of the 1640s. He alluded to his initial denial of an infinite universe in *Psychathanasia*, and then noted how (as he now put it) ‘I know not what poetic fury’ had led him to alter his position and to embrace not only infinite space as such but also infinite matter (and infinite duration too). As he explained, he had at that time not yet discovered the new arguments that he would later be presenting in *Enchiridion metaphysicum*, which had forced him back in the direction of his original position again.⁸²

The actual discussion in Chap. 10 of *Enchiridion metaphysicum* is, admittedly, not altogether clear-cut. More began by establishing that the duration of the corporeal universe had to be finite, at least *a parte ante*—we will be examining those arguments in §4 of Chap. 5 below—and this then led him to wonder whether perhaps similar reasons might be adduced to support the conclusion that its extension would be likewise finite and circumscribed. However, when it came to proving this finiteness, More’s actual arguments are actually pretty feeble. (For instance, that God’s omniscience must enable him to know where the centre of the universe is; therefore, it must *have* a centre; therefore, given that a centre is defined as a point equidistant between the extremities, it must have extremities, i.e. it cannot be infinite). Indeed, More did in fact volunteer his own rejoinders to each of his own arguments. (For instance, that all that such considerations really show is that no infinite amplitude can have a centre—and God knows *that*).⁸³

However, what is clear from the overall discussion is that More’s opinion was now firmly in favour of the finiteness of the corporeal world’s extension. ‘Only that which is necessary, and cannot ever not be, can be from eternity’, he began by declaring. ‘By the same reason, only that which cannot not be everywhere at the same time without any interruption can be absolutely infinite. Of which kind matter is not, but only the divine amplitude.’⁸⁴ He did cloud the issue a little by adopting the same Cartesian terminology that he had earlier been criticising, suggesting that the worldly matter was ‘incapable of being absolutely infinite, but only indefinite, as Descartes is seen to pronounce somewhere and to reserve the term infinite to God alone.’⁸⁵ But we must not be misled by this: much as More might now have been willing to adopt Descartes’ terminology, he was *not* using it in the same way as Descartes had done. When Descartes called something ‘indefinite’, what he suspected was that it was in fact infinite, but he felt that he could not firmly come out

⁸¹ See the discussion in Ward 2000, pp. 213–218.

⁸² *Opera omnia*, vol. 2.1, p. ix (*Praefatio generalissima*, §11). A translation of this particular passage is included in Jacob’s edition of *Enchiridion metaphysicum* (i.e. *Manual of Metaphysics*, 1995), vol. 1, pp. xxvi–xxvii.

⁸³ *Enchiridion metaphysicum*, vol. 1, pp. 84–85 (ch. 10, §6); and see pp. 85–89 for the rest of these arguments and rejoinders (§§7–15).

⁸⁴ *Enchiridion metaphysicum*, vol. 1, p. 86 (ch. 10, §8).

⁸⁵ *Enchiridion metaphysicum*, vol. 1, p. 88 (ch. 10, §14).

and say this because there might yet have been some unseen impediment to its infinity that his mind was incapable of grasping. By contrast, when the mature More of the 1670s called something ‘indefinite’, what *he* suspected was that it was in fact finite. Indeed, a parenthetical remark makes this explicit: ‘it is so clearly established that the worldly amplitude is only indefinite (that is, in fact finite).’⁸⁶ And, in his subsequent writings, in 1676, in 1677, in 1678, and again in 1679, he was quite unequivocal. He no longer bothered to weigh up the pros and cons of the arguments. He simply declared that the corporeal world was only finite in extension, and he referred his reader to this section of *Enchiridion metaphysicum*, where—he now confidently maintained—he had *proved* this to be the case.⁸⁷

But, now, if the corporeal universe is indeed finite, then it should be possible for there to be further empty space beyond it. That is to say, it should be possible for there to be an extension out there that does not belong to any corporeal thing. More imagined a tower, jutting out at a right angle, at the edge of a finite corporeal universe. He considered a point on the surface of the corporeal universe, some distance away from the base of the tower, and he asked about the diagonal distance between this point and the top of the tower. There would surely *be* a distance between them. Indeed, given the height of the tower and the distance of the point from its base, it would be elementary to calculate the precise magnitude of this distance. But this distance, this extension, could not itself be corporeal, because the vertical tower was, *ex hypothesi*, the only body to be found beyond the otherwise flat surface. It would therefore be a distance in empty space.⁸⁸ Regardless of whether or not there were any pockets of vacuum within the corporeal world, any extension that reached beyond it would, *ipso facto*, have to be void. Indeed, More believed that the corporeal universe was actually surrounded by an *immense* expanse of such empty space, ‘diffused all round in all parts even to infinity and distinct from mobile matter’, as he put it in a remark just a couple of paragraphs below that tower argument.⁸⁹ We will have a lot more to say about the nature of this infinite, incorporeal space later on.

5 Impenetrability

Despite the fact that More agreed with Descartes that the natural world was a plenum, the mere fact that he denied that there was anything incoherent about the idea of empty space is enough to entail that More’s theory of the essence of body

⁸⁶ *Enchiridion metaphysicum*, vol. 1, p. 89 (ch. 10, §14).

⁸⁷ *Remarks upon Two Late Ingenious Discourses* (published 1676), p. 150 (remark 38, upon *Difficiles Nugae*, ch. 17); *Opera omnia*, vol. 2.1, p. 574 (*Ad V.C. epistola altera*, written 1677, §20); *Refutation of Spinoza* (written 1678), pp. 94, 100; 1679 notes upon *The Immortality of the Soul*, p. xv, and p. 7 (The Preface, §3, note; and bk. 1, ch. 2, §8, note).

⁸⁸ *Enchiridion metaphysicum*, vol. 1, pp. 51, 56 (ch. 7, §13; ch. 8, §5).

⁸⁹ *Enchiridion metaphysicum*, vol. 1, p. 52 (ch. 7, §15).

cannot have been like Descartes'. Never mind whether there might actually *be* any such empty space, perhaps on the other side of the boundary of a finite corporeal universe: if it so much as barely *possible* that there should be an extension where there is no body, then clearly there must be more to the definition of body than mere extension alone. More's opinion was that body should be defined not simply in terms of extension, but in terms of *impenetrable* extension, thereby leaving open the possibility of another, penetrable kind of extension that could pertain to empty space (and, as it will turn out, to spirits too).

Now, as I have already mentioned in passing, Descartes did in fact believe that impenetrability was an essential attribute of body. He sharply distinguished impenetrability from hardness, the latter being merely a sensation that could be aroused in a percipient mind as a result of tactile contact with a body. But, quite aside from the fact that sensations in general were properly modes of thought, and not of extension at all, Descartes also pointed out that there was no necessity that even the most solid body should actually produce such a sensation at all. The body might, for instance, rush away from a person's hands at the same speed as they moved in to touch it.⁹⁰ Impenetrability, however, went further than mere superficial contact, and reached right into the internal dimensions of the body itself, amounting to the strict impossibility that two bodies should occupy the same place at the same time. Descartes' attitude was that this impenetrability was a necessary property of all and only bodies, alongside other attributes such as indefinite divisibility, mobility, etc.

Descartes, however, did not refer explicitly to these attributes in the account he gave of the essence of body, because he felt that to mention them was simply unnecessary. Descartes' view was that, although a substance might be knowable through any of a number of different attributes, there should be 'one principal property which constitutes its nature and essence, and to which all the other properties are related.'⁹¹ For body, this was the three-dimensional extension itself. This, he felt, was logically prior to impenetrability and the others, for those latter attributes were entailed by the former, as direct corollaries of the mere fact of being extended.

Descartes' deduction of the secondary attribute of impenetrability from this primary attribute of extension was pretty straightforward. As he wrote to More himself: 'it is impossible to conceive of one part of an extended thing penetrating another equal part without thereby understanding that half the total extension is taken away or annihilated; but what is annihilated does not penetrate anything else; and so, in my opinion, it is established that impenetrability belongs to the essence of extension and not to that of anything else.'⁹² In the light of this, Descartes felt that there was no need to refer explicitly to impenetrability in the definition of body,

⁹⁰ Descartes 1991, pp. 40–41/AT 8A:42/CSM 1:224 (pt. 2, §4).

⁹¹ Descartes 1991, p. 23/AT 8A:25/CSM 1:210 (pt. 1, §53).

⁹² *Epistolae quatuor*, p. 85/CSMK 372/AT 5:342 (Descartes to More, 15 April 1649). On impenetrability in Descartes, including discussion of his correspondence with More, see Garber 1992, pp. 144–148; Pasnau 2007, pp. 301–304 (but, for my part, I would not actually go along with everything that Pasnau says here—see n. 96 below).

because it was already covertly contained in the notion of extension as such. And it was the latter notion that was conceptually prior to the former, rather than vice versa. Any conception of impenetrability would certainly need to involve a conception of the extension whose impenetrability it was. By contrast, even though it might have been impossible for a penetrable extension to exist or even to be conceived, extension as such could nevertheless be conceived without any consideration being given *one way or the other* to its impenetrability. If, for instance, one was to consider indefinite extension as a single, continuous expanse, without any actual division into distinct parts, then the question of whether one of these parts might penetrate another would simply never arise.⁹³

Now, More certainly did not believe that *bodies* were penetrable. In his later writings, as we will shortly see, he would be absolutely explicit in defining a body directly in terms of impenetrability, discernibility and inactivity, in contrast to the penetrability, indiscernibility and activity of spirits. But, even in his very first work, the original 1642 version of *Psychodia Platonica*, the notion of a penetrable body already seems to have struck him as an absurdity. For instance, when he discussed the manner in which a spiritual substance such as God could be present in the spatial world, More made it clear that he could not be present in the same manner as that in which the bodies themselves were present, on the grounds that God's presence in 'every Atom-ball' would then have required 'penetrance / Of bodies'.⁹⁴ The penetration of one body by another body was, it would seem, being treated as the kind of impossibility that would have thwarted God's omnipresence if he had been like a body. Elsewhere in the same work, More tackled the case of the presence of a created soul in the individual body to which it was united. In response to the suggestion that perhaps the soul was itself corporeal, More observed that, in that case, it would be prevented from entering the body that it was supposed to be animating.⁹⁵

But a vacuum, almost by definition, will be a *penetrable* extension. It does not contain anything corporeal, but it *could*. So, in the light of More's commitment to the possibility—even if not the actuality—of a vacuum, it seems that he cannot have agreed with Descartes in regarding the notion of impenetrability as logically derivable from the notion of extension as such.

For Descartes' argument had in fact rested on his own identification between extension and body: deny that, and the argument does not get off the ground.⁹⁶ Let us suppose with Descartes that we have two bodies, say of one cubic foot apiece, some distance apart. We will here have two cubic feet of *body* in total, which—given Descartes' identification—will amount to saying that we have two cubic feet of *extension* in total. Suppose now that these penetrate one another, by coming to

⁹³ On this latter point, see *Epistolae quatuor*, p. 67/CSMK 361/AT 5:269 (Descartes to More, 5 February 1649).

⁹⁴ *The Complete Poems*, p. 20a (*Psychozoia*, cant. 2, sts. 10, 12).

⁹⁵ *The Complete Poems*, p. 60a–b (*Psychathanasia*, bk. 2, cant. 2, sts. 13–14). I am glossing over some of the details of this particular argument.

⁹⁶ Pasnau denies this: Pasnau 2007, p. 302. As I here explain, I disagree with him on this point.

share a single place. The place itself, in order to accommodate each of them, must itself measure one cubic foot, meaning that we have now found ourselves left with just one cubic foot of *extension*, which—given the same identification, but now applied in the other direction—will amount to saying that we have just one cubic foot of *body* in total. So half of the total, rather than penetrating anything, will have simply been annihilated.

But, if we do give up that identification, the argument will not go through. Suppose we have a body of one cubic foot, some distance away from an empty space of the same dimensions. What More would say is that we actually have *three* cubic feet of extension here: that of the body, that of the empty space, but then also that of the space that the body is *currently* occupying. Descartes, for his part, felt that there was only a distinction of reason between a body and its ‘space or internal place’. Ultimately, the genuine object here was the single extension that defined them both.⁹⁷ But More felt that there was a real distinction between them. Corporeal extension was impenetrable (as well as being discernible), whereas spatial extension was penetrable (as well as indiscernible). Indeed, it was precisely through an act of penetration that a certain region of space could be occupied by a body; while another region might, at least in theory, remain void. There will certainly be a great deal more to say about More’s theory of space, and we will certainly be returning to the topic more than once in what follows. But, for now merely to apply this consideration to the argument at hand, let us now suppose that the body moves from its current space into the empty one. There will *still* be three cubic feet of extension involved in the case: one corporeal and two spatial. The only change here will be as described: the motion of a body from one place to another, leaving one of them empty and filling the other. Nothing will have been lost at all. Descartes’ argument that all extension must be impenetrable stands or falls with his contention that all extension is corporeal. More rejected both and embraced another kind of extension, a kind that was incorporeal on the one hand and penetrable on the other.

Admittedly, there are a couple of places in these *Philosophicall Poems* where it looks as if More was siding with the Cartesian position after all. In *Democritus Platonissans*, for instance, he asked: ‘What makes a body, saving quantity? / What quantitie unlesse extension?’⁹⁸ And, if this 1646 remark—written while More was still in his first flush of enthusiasm for Cartesianism—should be thought to betray a direct influence from Descartes himself, there is also another similar passage from 1642, written before More had ever read Descartes. Thus, in *Psychathanasia*, More declared: ‘The naked essence of the body’s this / Matter extent in three dimensions / (Hardnesse or softnesse be but qualities)’.⁹⁹ More also referred back to this latter passage in the definition of ‘Body’ that he provided in the Particular Interpretation of *Democritus Platonissans* (and subsequently reprinted in *The Interpretation*

⁹⁷ Descartes 1991, pp. 43–45/AT 8A:45–47/CSM 1:227–228 (pt. 2, §§10–12). See the first section of Chap. 4 below (pp. 107–109), for the details of Descartes’ theory of place/space.

⁹⁸ *The Complete Poems*, p. 94b (*Democritus Platonissans*, st. 36).

⁹⁹ *The Complete Poems*, p. 60a (*Psychathanasia*, bk. 2, cant. 2, st. 12).

Generall of the 1647 collected edition of the *Philosophicall Poems*). There, More noted that the ancient philosophers had not defined body solely in terms of extension in three dimensions (*To trichēi diastaton*), but that they had also added ‘antitypia’ (*antitupia*) to this. And he acknowledged that this was near to the description he had given in this stanza, but he added: ‘for that *antitupia*, simple trinall dimension doth not imply it, wherefore I declin’d it.’¹⁰⁰ Now, that term ‘antitypia’ signified resistance, and More would *later* be using it to denote impenetrability in the strict sense of that particular term. Here, however, the back-reference to this stanza of *Psychathanasia*, and its parenthetical comment in particular, would seem to suggest that More might have here been using the term to denote mere hardness, a quality which, as Descartes himself had argued, three-dimensionality certainly did not imply. But, either way, and in contrast to the ancients, the point is that More was *declining* to include ‘antitypia’ in his own account of the ‘naked essence’ of body, and making do with three-dimensional extension alone.

But then, the position that More set out in these poems, and in *Democritus Platonissans* above all, was a highly complex and deeply peculiar one. There will be more to say about this position in §2 of the next chapter below, and in other sections and subsequent chapters too: but I shall postpone any further examination of these complexities for now.

For, by the time that More got round to corresponding with Descartes, his position does seem to have begun to solidify. Not only was he starting—albeit still with some equivocation—to get clearer on the distinction between mere tangible hardness and genuine impenetrability, but he was also now quite explicitly including the latter in his conception of body. In his first letter, More wrote as follows:

although matter is not necessarily soft, or hard, or hot, or cold, it is nevertheless absolutely necessary that it should be sensible; or, if you prefer, tangible.... But, if you are not so keen on defining body through its relations to our senses, this tangibility can be taken in a more extensive and diffused sense, and signify that mutual contact, and that power of touching which exists between every body, whether animate or inanimate, and between the outer surfaces of two or more immediately juxtaposed bodies. Which reveals another condition of matter or a body, which you may call ‘impenetrability’, whereby it is impossible for it to penetrate another body or to be penetrated thereby. From which the difference between the divine and corporeal natures is very evident, since the one can penetrate the other but the other cannot penetrate itself.... It would be much more secure to define matter as a tangible [*tangibilem*] or, as I explained above, impenetrable [*impenetrabilem*] substance, than as an extended thing.¹⁰¹

In his reply, Descartes seized upon More’s initial attempt at an analysis of the essence of matter in terms of a body’s relation to our senses, and his introduction of the notion of impenetrability merely as a broader elaboration of that sensual notion of tangibility, and he rebuked More for it.¹⁰² But at least More was now starting to

¹⁰⁰ *The Complete Poems*, p. 160a (The Interpretation General: ‘Body’).

¹⁰¹ *Epistolae quatuor*, pp. 62–63/AT 5:239–240 (More to Descartes, 11 December 1648).

¹⁰² *Epistolae quatuor*, pp. 66–67/AT 5:268–269/CSMK 360–361 (Descartes to More, 5 February 1649).

use that technical term, ‘impenetrability’, as opposed to merely alluding to an undefined ‘antitypia’; and what he was now stressing was that it did indeed need to be introduced explicitly into the definition of body or matter.

In his second letter, More argued that ‘tangibility or impenetrability’ had not been shown to be essential to extension as such, but was instead proper to the extension of bodies in particular, and he suggested that there was another, penetrable extension that pertained to God.¹⁰³ However, since More’s conception of this divine so-called extension brings with it complications of its own, independent of the current discussion and to be examined in Chap. 5 below, I shall not pursue this particular line of argument any further here. Instead, I leap ahead a year, to More’s polemic exchange with Thomas Vaughan.

There, we find More appealing to the strict impenetrability of body in the course of an argument against Thomas Vaughan’s conception of rarefaction and condensation. More’s own conception of such phenomena was modelled on Descartes’ opinion that a body could only expand in the manner of a sponge, by drawing extraneous fluid matter into the microscopic pores between its atoms, and that it could only then subsequently contract by closing up these pores, expelling this fluid matter once again. The dimensions of the matter that properly belonged to the body itself would still remain constant, even as that matter found itself more or less diffusely spread.¹⁰⁴ Vaughan, by contrast, was happy to countenance a real increase or decrease in the dimensions of a body. In particular, he believed that the corporeal world had been created as a dark mass of matter out of which God would subsequently extract different kinds of body. But More complained: ‘you make as if the Masse did contain in a far less compass above all measure, all that was after extracted. Wherefore there was, (for these are all bodies) either a penetration of dimensions then, or else a *vacuum* now.’¹⁰⁵ Vaughan’s scheme might have been possible if corporeal penetration had been possible, for this would have enabled several distinct corporeal extensions to overlap in the original mass, and consequently have the capacity to take up a greater total volume when subsequently separated. It would also have been possible if it had been (naturally, physically) possible for a void to be left behind as these various bodies naturally dispersed outwards. But More was now quite clear in rejecting both of these notions together. And, whatever one decides about his position in the 1640s, we can at least state with confidence that his opinions in this matter did not change from 1650 onwards. Even as late as 1676, More not only repeated his contention that condensation and rarefaction had to be explained in the manner of a sponge, but argued for this conclusion in precisely the same way as he had done to Vaughan in 1650: otherwise such processes would result either in the creation of vacua or in the penetration of

¹⁰³ *Epistolae quatuor*, p. 74/AT 5:301 (More to Descartes, 5 March 1649).

¹⁰⁴ *The Second Lash of Alazonomastix*, pp. 71, 128 (upon page 24, line 11; and upon page 59, line 1, observation 24). Cf. Descartes 1991, pp. 41–42/AT 8A:43–44/CSM 1:225–226 (pt. 2, §§6–7).

¹⁰⁵ *Observations upon Anthroposophia Theomagica, and Anima Magica Abscondita*, p. 24 (upon *Anthroposophia Theomagica*, pag. 21).

dimensions.¹⁰⁶ Although the former might not have been a logical impossibility, it was nevertheless prohibited by the natural order of the universe; while the latter was strictly impossible for all corporeal dimensions.

More generally, after the period of his poems, More became absolutely explicit in defining body not simply in terms of extension, but directly in terms of impenetrability. Thus, in *The Immortality of the Soul*, More defined body as a impenetrable and discernible substance (and he defined spirit as the contrary of this, a penetrable and indiscernible substance).¹⁰⁷ Not only was extension not treated as the sole defining attribute of body: it was not actually mentioned at all. But then there was no need to mention it, given that More's contention was now that extension was already presupposed by the notion of substance as such, 'it being the very essence of whatsoever is, to have *Parts* or *Extension* in some measure or other'.¹⁰⁸ Besides which, the notion of penetration itself presupposed dimensions that might be penetrated, and the notion of division presupposed internal boundaries along which such division might be made.

Again, in the *Divine Dialogues*, now adding a third component to the definition, More declared the essence of corporeal matter to consist in Self-disunity (i.e. discernibility), Self-impenetrability, and Self-inactivity (and he again defined spirit 'by the rule of Contraries' in terms of Self-unity, Self-activity, and Self-penetrability).¹⁰⁹ That additional component to the definition, self-inactivity, was certainly an important feature of bodies for More, and one to which we will return. But More felt that the other two attributes were already sufficient by themselves to distinguish this corporeal matter from spirit: 'So that two Substances, *Matter* and *Spirit*, stand opposite one to another, specifically distinct, by their immediate, essential and inseparable Attributes, the one being really *discernible* and *impenetrable*, the other *penetrable*, and *indiscernible*, sufficiently thus to be discriminated, before we consider any Principle of *Activity* in either.'¹¹⁰ Once more, in *Enchiridion metaphysicum*, More defined a body as 'a material substance, that is, composed of physical monads, or at least the most minute particles of matter into which it is divisible, and on account of their *antitupian* impenetrable by any other body, so that the essential and positive differentia of body is that it is *antitupon*, or impenetrable, and physically divisible into parts. The fact that it is extended, however, immediately belongs to it insofar as it is a being.'¹¹¹

And this last passage is significant for making impenetrability not merely a part of the essence of a compound body, but explicitly stating that its component physical monads or atoms would themselves need to be individually impenetrable, and

¹⁰⁶ *Remarks upon Two Late Ingenious Discourses*, pp. 55–60 (remark 1, upon *Difficiles Nugae*, ch. 2).

¹⁰⁷ *The Immortality of the Soul*, pp. 5, 8 (bk. 1, ch. 2, §§10–11; ch. 3, §1).

¹⁰⁸ *The Immortality of the Soul*, p. iii (The Preface, §3).

¹⁰⁹ *Divine Dialogues*, pp. 61, 64 (dial. 1, §§29, 30).

¹¹⁰ *Saducismus Triumphatus*, p. 196 (*An Answer to a Letter of a Learned Psychopryist*, §1).

¹¹¹ *Enchiridion metaphysicum* vol. 1, p. 118 (ch. 28, §2).

that this was in fact the basis for the impenetrability of the whole. In More's early writings, when he had still been vague at best about the distinction between tangible resistance and genuine impenetrability, conflating both under a not-yet-adequately defined notion of antitypia, he was willing to deny such a quality to individual atoms, and even to a homogenous mass of disconnected atoms. The atoms were too small to reveal themselves individually to the senses; and, being perfectly fluid, a mass of disconnected atoms would be insensible too. But, sensible or not, these physical monads *were* impenetrable, in the sense that no two of them could exist in the same place at the same time. In discussing such particles elsewhere in the same work, More again noted that they 'cannot mutually penetrate themselves'.¹¹²

6 Atomic Shape

We have now identified a few properties that can be attributed to Morean atoms or physical monads. They were to be extended, and impenetrable, but nevertheless indiscernible. As we also saw, they were to be packed tightly together to form a corporeal plenum without any gaps. But what else can we say about the natures of these atoms, and about the natures of the compound bodies that arose out of their aggregation? Richard Westfall has described Morean atoms as: 'a strange sort of particles as small as particles can be, *minima naturalia* or perfect parvitutes, as More called them, which attempt to combine the physical reality of the atom with the best features of the point.'¹¹³ Westfall is quite right that there are certain peculiarities in More's notion of an atom. In particular, there are certain passages where More does seem to have envisaged them more on the model of points than as real corpuscles. We already noted, for instance, that sometimes he would call them 'infinitely little'. Admittedly, he did gloss this as amounting to 'an infinite real littleness',¹¹⁴ and continued to maintain that they 'have indeed real extension'.¹¹⁵ But still, one does often feel that More would have *liked* his atoms to have been infinitely little in a fully literal sense, even though the force of argument did ultimately lead him away from that conclusion. The notion that something extended should be absolutely immune from division, not only by natural forces but even by the omnipotent power of God himself, and that for no other reason than that its size just happens to fall at an apparently arbitrary lower limit, is certainly not a metaphysically satisfying one.

Something that one might wonder—especially in the light of some of More's terminology, such as 'minima corporalia', 'perfect parvitutes', etc.¹¹⁶—is whether a more proper comparison for More's physical monads might actually be with

¹¹² *Enchiridion metaphysicum*, vol. 1, p. 71 (ch. 9, §1).

¹¹³ Westfall 1962, p. 174. See also Westfall's almost identical characterisation of Morean atoms in Westfall 1971, p. 328.

¹¹⁴ *The Immortality of the Soul*, p. xv (The Preface, §3, note).

¹¹⁵ *The Immortality of the Soul*, p. iii (The Preface, §3).

¹¹⁶ *The Immortality of the Soul*, pp. 20–21 (bk. 1, ch. 6, §7), and elsewhere.

Aristotelian minima (at least in the form that that theory had eventually come to take on by the seventeenth century), rather than with atoms properly so called. This would not, however, be warranted. For a start, More himself did quite explicitly seek to associate his own theory with that of the Democritics and Epicureans, rather than with anyone in that Aristotelian tradition. One should also not forget that he believed that Democritus and Epicurus themselves had, in any case, drawn this theory from a considerably more respectable source in Moses himself. On a more philosophical level, it is true that Morean atoms were primarily theorised as the end-points of a process of a division, and he nowhere made it explicit that the first cut in a body would need to trace a boundary between already-actual atoms. However, what he did at least make clear was that the ‘integral’ extension of a compound body owed itself to the aggregation of the essential extensions of its individual atoms. These atoms were not *only* the end-points of a theoretical process of division: they were additionally presented as the starting points for a physical process of composition. As we will see in more detail in the next chapter, God would *first* create a homogeneous mass of atoms, and could only *then* get to work in establishing bonds between them. Each atom, it would seem, would thus need to have a unique individual identity of its own, prior to such a process.

But, even if it is allowed that More’s atoms are to be located within the same broad tradition as those of Democritus and Epicurus, they are certainly not to be equated with them. Their atoms might not have been ascribed many properties, but More’s had even fewer. Although the atomists had traditionally declined to ascribe sensible qualities like colours or flavours to their atoms individually, to say nothing of the chemical properties that some in the Aristotelian tradition had ascribed to their minima, many of them had endowed atoms with at least one or two non-mechanical properties. Atoms would often be ascribed weight, for instance, as an intrinsic principle of (downward) motion. But More always felt that gravitation could not be regarded as intrinsic either to atoms or to compound bodies, and that it could only be explained by reference to the action of genuinely spiritual forces on these objects. Even giving up those additional properties, individual atoms—just like compound bodies—had at least been traditionally thought to possess all of the mechanical properties of size, shape, impenetrability and motion/rest. But, even here, More’s conception of an atom was still curiously impoverished. As we have seen, More’s physical monads were supposed to possess size and impenetrability essentially. They could also be moved, albeit only accidentally by external influences. But where More sharply diverged from the classical atomists was over the issue of shape. For Democritus and Epicurus, an atom’s shape was in fact one of its *most important* features, making a crucial contribution to the physical natures of compound bodies. But More did not merely downplay the significance of atomic shapes: he denied that atoms had any shapes at all.

‘I say,’ wrote More in 1659, ‘those *indiscerpible* particles of *Matter* have no *Figure* at all: As *infinite Greatness* has no *Figure*, so *infinite Littleness* has none also.’¹¹⁷ It does seem reasonable to claim that infinite greatness has no figure,

¹¹⁷ *The Immortality of the Soul*, p. iv (The Preface, §3).

because figure can only have an application where there is a boundary to be figured, and the whole point about infinite greatness is that it lacks a boundary. At the other limit, it is equally reasonable to claim that a mathematical point has no figure. And yet More was careful to distinguish his atoms from mathematical points. If, as More did claim, an atom possessed a real finite size, then its extension would certainly be bounded, and this boundary would surely need to have some shape or other. In a 1679 note, More considered this objection and, in response, he simply rejected the principle ‘that every material Extension that is bounded hath figure’. That principle was only true of compound bodies: the individual atoms out of which they were compounded were exempt from it. These atoms could be ‘neither gibbose [i.e. humped] nor plain, neither a Globe nor a Cube, but equally all of them’.¹¹⁸

But More did at least have an argument to support this peculiar position. Suppose that an atom has some non-spherical shape. In that case, its size along one axis will exceed its size along another. A cube, for instance, will have a diagonal greater than its side. But an atom is supposed to be as small as anything could possibly be, whereas it would seem that this cube—or anything else that has jutting-out parts—might have been smaller than it actually is. Consider the length of the cube’s side. It must be possible for something to be as small as that in one direction: the supposed existence of this very cube itself is sufficient to demonstrate that much. And there does not seem to be any good reason why these minimum lateral sizes should vary for different directions: what if we simply rotate the cube? Consequently, it ought to be possible for a sphere to exist with a diameter equal to the side of this cube. But this sphere will be smaller than the cube overall. Therefore, the cube will not be so small that nothing could possibly be smaller, as More demanded of his atoms.

So a Morean atom cannot possess any shape other than sphericity. But then it turns out that it cannot be spherical either. The trouble with spheres is that, unlike cubes, they cannot be packed together without leaving gaps. If atoms were spherical, no matter how closely they were packed, ‘there would be *Triangular intervals betwixt*, void of Matter’.¹¹⁹ More had a couple of problems with this scenario. First, these gaps between the atoms would be *smaller* than the atoms themselves—but, again, the atoms themselves were supposed to be at the lower limit of possible size. As More put it: ‘if there were any such *Intervals*, they were capable of particles less than these least of all; which is a contradiction in Reason, and a thing utterly impossible.’¹²⁰ This was in fact what Descartes had believed about the intervals between the globules of his second element: that they were occupied by particles of the first element, reduced to whatever indefinitely small sizes and shapes might be required to fill those intervals perfectly. But that was all very well when indefinite or infinite divisibility was possible, so that there could be particles smaller than the spheres themselves. It was not going to help when the hypothetical spheres, whose intervals were in need of filling, were themselves as small as anything could possibly be.

¹¹⁸ *The Immortality of the Soul*, p. xiv (The Preface, §3, note).

¹¹⁹ *The Immortality of the Soul*, p. 20 (bk. 1, ch. 6, §7).

¹²⁰ *Ibid.*

Thus, given that it was so contradictory for the gaps between these hypothetical spherical atoms to be filled with even smaller physical particles, then they would indeed need to be left entirely empty. But then, More did not like that notion either. As we saw, notwithstanding his contention that a vacuum was possible, he denied its actuality in the natural world. Although God had the power to produce a vacuum, he was going to need a pretty powerful reason actually to do so. The fact that such a vacuum would be a necessary consequence of his opting to endow atoms with a spherical shape was simply not a good enough reason. And, from the point of view of philosophical enquiry, it was most rational for us not to assume the existence of a vacuum, if our only grounds for doing so were in order to preserve an intuition that atoms ought to be spherical.¹²¹

And so, in *The Immortality of the Soul*, More concluded that atoms were entirely shapeless. One might quite reasonably feel a certain dissatisfaction with this plank of the theory. Indeed, there is a passage in *Enchiridion metaphysicum* where More himself seems to have shown a certain reluctance to commit himself too firmly to it: ‘whether they be indeed round, since no real extuberancies or angularities can be supposed in them and the round shape is the most contracted of all of the same capacity, I leave to be discussed by others who have more leisure and subtlety of mind.’¹²² On the other hand, in the 1679 notes on *The Immortality of the Soul* (notes that postdated *Enchiridion metaphysicum*, and wherein More had no qualms about reversing his position entirely on points where he had actually changed his mind), he did still take the time carefully to defend his earlier claims about this total lack of figure, even a spherical one. Perhaps the reticence in this *Enchiridion metaphysicum* passage resulted not from any real uncertainty on his part, but merely from the fact that it was not essential to the argument he happened to be presenting at that precise moment. Indeed, just a couple of sections later, he was back to denying that they were round, or had any other kind of figure. And so, although More’s atoms did possess size, impenetrability and motion/rest, that really was all they had. In the case of shape, they lost one of the key attributes that atoms had traditionally been conceived to possess.

¹²¹ *The Immortality of the Soul*, pp. 21, 23 (bk. 1, ch. 4, §7, and note).

¹²² *Enchiridion metaphysicum*, vol. 1, p. 72 (ch. 9, §3).

Chapter 3

Hyle, or First Matter

1 Background

Plato's principal discussion of the creation of the world, and of the natures of the creatures themselves, is to be found in *Timaeus*.¹ As is well known, Plato believed that the most 'real' things were the eternal, immutable and intelligible Forms or Ideas. These alone possessed true being, while sensible objects were merely their faint shadows, forever in a process of becoming, with the sensible world as a whole constituting a 'moving image of eternity' (37d).² But Plato's *Timaeus* actually offered not one but two stories of this creation, stressing in both cases (29c–d, 48c–d) that they were merely to be regarded as probable accounts anyway. In the first account, he had focused on just two components, the intelligible pattern and its sensible imitation. But then he proposed to go back to the beginning, and to tell the story again, now adding a third component to these two. He described this new component in a variety of ways: as a certain 'necessity' that would work in conjunction with 'mind' to bring forth the creatures (47e–48a); as a 'receptacle' for the creatures that could be produced within it (49a–b and passim); as 'in a manner the nurse, of all generation' (49b); and as the 'matter' upon which various sensible forms were stamped (50e). This third thing was a purely passive substrate upon which the eternal Ideas could work to produce temporal creatures, moulding it into various sensible imitations of their own intelligible forms. But, considered purely in itself, the receptacle was entirely formless. Whatever form it ended up taking on, it owed entirely to the Ideas. If it had already possessed some specificity of its own, prior to this reception of form from the intelligible world, this would have distorted those received forms and it would have taken the impressions badly. Only by having

¹ I already presented some of the material of this chapter, together with the two that follow it, in Reid 2007, but in a less fully developed way.

² Plato 1963, p. 1167 (*Timaeus*, 37d). Subsequent remarks in this paragraph come mostly from pp. 1176–77.

no inherent form at all could it be fit to receive all forms indifferently (50d–e). Indeed, even when individual creatures were drawn out of it by means of an impression from the intelligible world, the resultant sensible forms would properly pertain only to those creatures themselves, rather than to the universal receptacle that underlay them all. About the latter, Plato wrote: ‘inasmuch as she always receives all things, she never departs at all from her own nature and never, in any way or at any time, assumes a form like that of any of the things which enter into her; she is the natural recipient of all impressions, and is stirred and informed by them, and appears different from time to time by reason of them’ (50b–c).

After Plato, Aristotle had a notion broadly comparable to this. Although he rejected the Platonic intelligible realm of independent Ideas, he was perfectly comfortable with a distinction between the sensible form of a created individual and the matter in which such a form inhered. To adopt one of his own examples: in the case of a bronze sphere, we could make at least a conceptual distinction between the spherical shape and the bronze that bore it. The former constituted the form, and the latter the matter. Bronze, considered simply insofar as it was bronze, had the potential to take on any shape whatsoever. When it was endowed with sphericity, this would amount to the actualisation of one (and only one) out of this indefinite range of potential shapes.

But, of course, even bronze as such did already possess some actual specificity of its own: even disregarding its shape, it was already determined into a *bronze* form where it might instead have borne a silver or gold one. Aristotle speculated about what might be left if *all* form and actuality were stripped away from an object, and this led him to develop a concept of ‘prime matter’. ‘When all else is taken away,’ he wrote, ‘evidently nothing but matter remains.’³ This most basic matter would be a *pure* potentiality, indifferently capable of taking on any form whatsoever. Aristotle never committed himself to the view that such prime matter could be said to *exist* in any meaningful sense—it certainly could not be said to exist *actually*, for actuality as such was resolved into form—but it could at least be conceptualised as a limit of formlessness. Thus, in another passage, Aristotle would write:

It seems that when we call a thing not something else but ‘of’ that something (e.g. a casket is not wood but of wood, and wood is not earth but made of earth, and again perhaps in the same way earth is not something else but made of that something), that something is always potentially (in the full sense of that word) the thing which comes after it in this series.... And if there is a first thing, which no longer is called after something else, and said to be of it, this is prime matter.⁴

Now, it would certainly be wrong simply to equate Aristotelian prime matter with the Platonic receptacle. Classical scholars will point out a number of differences between them.⁵ But those differences are not so relevant in the present context. The important thing for us to draw from both of these two discussions is merely the

³ Aristotle 1984, vol. 2, p. 1625 (*Metaphysics*, bk. 7, ch. 3; 1029a11–12)

⁴ Aristotle 1984, vol. 2, p. 1657 (*Metaphysics*, bk. 9, ch. 7; 1049a19–26).

⁵ See, for instance, Mohr 1985, pp. 91–98. Also Sorabji 1988, chs. 1–3, especially pp. 3–10 and 32–36.

notion of an ultimate limit of pure potentiality, however that notion might get theorised in detail. That is to say, the notion of a substrate, which could take on any form whatsoever and thereby make a (purely passive) contribution to the generation of creatures, but which, considered in its own right, was utterly formless.

As I have said, although More did draw on both Plato and Aristotle (and was certainly conversant with the subsequent Scholastic developments of Aristotelianism, even if not generally sympathetic to them), the chief influence on his earliest philosophical development was instead Plotinus. But then we do find similar suggestions in Plotinus's works too. Plotinus envisaged the universe as a sequence of emanations from The One or The Good, via Mind and Soul, and he placed matter right at the very bottom of this hierarchy. Like the Platonic receptacle, or Aristotelian prime matter, Plotinian matter was indifferent to all of the various sensible forms that could be applied to it. Indeed, in itself, it was insensible, and could only be apprehended intellectually—but not, Plotinus explained, through any positive operation of the intellectual mind. Echoing Plato himself, who had written of the receptacle that it was ‘apprehended, when all sense is absent, by a kind of spurious reason, and is hardly real’ (52b), Plotinus wrote of his matter that it was apprehended through ‘a reasoning that finds no subject; and so it stands revealed as the spurious thing it has been called.’⁶ He described it as pure privation, and he did not balk at declaring that it was ‘a non-existent’,⁷ and a ‘Non-Being’.⁸ However, he did not mean that there was simply no such thing as matter. ‘By this Non-Being, of course, we are not to understand something that simply does not exist, but only something of an utterly different order from Authentic-Being.’⁹ The existence of matter was purely a relative one, insofar as it served as the potentiality of, and the substratum for, those actual bodies that would result when form entered into it. But whatever reality those bodies had would have been drawn entirely from The One, and not from its purely passive partner in the operation. Moreover, being the very opposite of The Good, this matter was described not only as non-being but additionally as pure evil, and, by virtue of its own intrinsic formlessness, it would corrupt whatever forms did happen to enter into it.¹⁰

We also find a similar position in Ficino—although, of course, now developed in more Christian terms. Ficino equally felt that matter was to be understood as pure potentiality, the passive recipient of, and the substrate for, all of the qualitative and quantitative sensible forms that God could stamp upon it.¹¹ God would first create earth, water, air and fire out of this matter, by informing it with qualities such as heat

⁶ Plotinus 1992, p. 128 (enn. 2, tr. 4, ch. 12).

⁷ Plotinus 1992, p. 133 (enn. 2, tr. 4, ch. 16).

⁸ Plotinus 1992, p. 138 (enn. 2, tr. 5, ch. 4).

⁹ Plotinus 1992, p. 77 (enn. 1, tr. 8, ch. 3).

¹⁰ See the full discussion in *en*nead 1, tractate 8; *enn.* 2, trs. 4, 5; and *enn.* 3, tr. 6 (Plotinus 1992, pp. 76–89, 119–140, 227–253). Also see O’Brien 1996.

¹¹ Ficino 2001–2006, vol. 1, pp. 31–33 (bk. 1, ch. 3); vol. 2, pp. 23–27 (bk. 5, ch. 5), 43–45 (bk. 5, ch. 8), 71–73 (bk. 5, ch. 12); vol. 3, pp. 133–135 (bk. 10, ch. 3); vol. 6, p. 237 (Appendix).

and cold, wetness and dryness. With the matter thus ‘conditioned’, he would then further modify these corporeal elements to produce the whole variety of sensible bodies that we actually experience.¹² But the underlying matter was indifferent to all of these. It was at the furthest extreme in the hierarchy of reality from God himself, and as such it was pure privation, at the furthest extreme from *being* itself. However, Ficino explained much as Plotinus had done, this did not mean that there was simply no such thing. ‘It is not nothing, but it is next to nothing, being primarily and to an unlimited extent that which is acted upon.’¹³

Now, it should be abundantly clear that the sort of substratum that these authors were describing was very unlike the kinds of corporeal matter that the classical atomists or, indeed, the Cartesians postulated. *Their* matter was quantitatively measurable, and it was solid and even sensible, whereas the other was a pure potentiality, prior to *all* such forms. But it should also be appreciated that there was a sense in which their matter was supposed to play a role that was at least analogous to this one. Consider, for instance, the atoms of the Epicureans. The Epicureans’ main arguments for the existence of atoms stemmed from the twin principles that nothing could either go to or come from nothing. On the one hand, and as we saw in the last chapter, the division of a body would need to terminate in some fundamental, smallest parts. In the other direction, there would already need to have been such smallest parts, or else those larger bodies could never have arisen in the first place. The Epicureans postulated atoms as the basic building blocks out of which all bodies were formed, generating various different kinds of sensible compound when various kinds of atom were combined in various ways, much as the whole variety of different words arose out of the different combinations of different letters.¹⁴ These atoms, with their individual sizes, shapes and motions, might have already had considerably more specificity than the purely formless prime matter did: but there was nevertheless a sense in which they could be construed as constitutive of the *potentiality* of all of the various bodies that could be built up out of them. A mass of atoms as such was not yet enough to make a world. In order for sensible compounds to arise, bonds needed to be formed between different atoms; and the atoms, considered as individuals, were largely indifferent as to which other atoms they might become bound to.

This atomic conception of matter will certainly prove to be relevant to More’s own discussions of the issue. But so too will another conception, one which arose out of the Platonic tradition and yet which, at least on some interpretations, did itself endow matter with at least slightly more intrinsic form of its own than was being allowed in the more orthodox theory of a genuinely *pure* potentiality. Going back to Plato’s discussion of the receptacle in *Timaeus*, we also find another characterisation of such matter, whereby it might be understood as a kind of ‘space... which provides a home for all created things’ (52b; see also 52d). Plato explained that a

¹² Ficino 2001–2006, vol. 3, pp. 151–155 (bk. 10, ch. 5).

¹³ Ficino 2001–2006, vol. 1, p. 41 (bk. 1, ch. 3).

¹⁴ Lucretius 1994, pp. 13–15 (bk. 1, lines 146–199).

part of this space could provide a home for created fire, for instance, by becoming inflamed, or receive created water by becoming moistened, and so forth, and that it served as the matter for these different kinds of body. But, although all *those* forms might be alien to the space that received them, the one thing that it *would* appear to possess in its own right was an actual (albeit incorporeal) extension.

This alternative conception, of an extended (though still otherwise formless) Platonic receptacle, will also prove relevant to More's discussions. But it is important to note that it is not at all clear how committed even Plato himself really was to such a notion. Indeed, the weight of the evidence would rather seem to tell against so literal an interpretation of his position. And then, when it comes to Plotinus, he certainly did not endorse the notion of an already-extended prime matter. For Plotinus, matter was prior to quantitative form, just as much as it was to qualitative form. He did consider the objection that, 'if your Base has no Magnitude it offers no footing to any entrant. And suppose it sizeless; then, what end does it serve?... This Matter with its sizelessness seems, then, to be a name without a content.'¹⁵ But he replied:

the Absolute Matter must take its magnitude, as every other property, from outside itself.

A thing then need not have magnitude in order to receive form: it may receive mass with everything else that comes to it: a phantasm of mass is enough, a primary aptness for extension, a magnitude of no content—whence the identification that has been made of Matter with the Void.¹⁶

Even when such quantity did enter into it from outside, it still did not beat the matter out into magnitude, Plotinus insisted, for 'the Matter was not previously shrunken small: there was no littleness or bigness.'¹⁷ When quantity entered into matter, the matter itself did not thereby shift from a non-extended state to an extended one: it merely supported a magnitude that nevertheless remained alien from it. 'Matter neither has the dimension nor acquires it; all that shows upon it of dimension derives from the Ideal-Principle.'¹⁸ In general, he wrote:

The Ideal Principles entering into Matter as to a Mother affect it neither for better nor for worse.

Their action is not upon Matter but upon each other; these powers conflict with their opponent principles, not with their substrata.¹⁹

In itself (to the extent that the notion of 'in itself' even makes sense for something so remote from genuine being) this Plotinian first matter was not and could never possibly be an extended thing.

Further afield, Plotinus's rejection of the notion of extended prime matter was shared by most other late classical and Medieval authors. There was, however, a scattered handful—such as John Philoponus, Simplicius, Roger Bacon or Giacomo

¹⁵ Plotinus 1992, p. 126 (enn. 2, tr. 4, ch. 11).

¹⁶ Plotinus 1992, p. 127 (enn. 2, tr. 4, ch. 11).

¹⁷ Plotinus 1992, p. 125 (enn. 2, tr. 4, ch. 9).

¹⁸ Plotinus 1992, p. 244 (enn. 3, tr. 6, ch. 16).

¹⁹ Plotinus 1992, p. 248 (enn. 3, tr. 6, ch. 19).

Zabarella—who took such a notion rather more seriously.²⁰ In More's own time, we might also mention Charles Hotham (1615–1672), not so much because of any particular intrinsic importance of his work, but rather because we know that More was acquainted both with it and with its author. Hotham, a fellow of Peterhouse in Cambridge, was a follower of Jakob Boehme. Now, More regarded Boehme himself as a sincere but wholly misguided enthusiast: but he was on friendly terms with Hotham, and contributed a dedicatory poem to the latter's *An Introduction to the Teutonick Philosophie* of 1650. In this verse, More observed that, considering Hotham's morals and well-meaning will, he would fear no ill in his work; and, indeed, weighing his far-searching wit, he would 'suspect some good lies hid in it'.²¹

Just as More himself would later be doing—and as many others had already been doing for centuries—Hotham equated the philosophical notion of prime matter with the 'abyss' described in the opening verses of the book of Genesis. But, by way of explication of this notion, Hotham also described it as 'an infinite immeasurable space, in every imaginable point whereof dwelt the whole Deity.'²² As he further explained: 'To this Deep or Abyesse may be attributed all what the Philosophers ascribe to their *Materia Prima*, to wit, that it is neither *quid*, *quantum*, nor *quale*; to wit, none of these in a definite essence or circumscrib'd figure or shape, but interminately all.'²³ I do not mean to imply a direct influence on More: but there is much here that, at certain stages in his career, More himself would be echoing (and plenty more elsewhere in Hotham's work that More never even came close to endorsing).²⁴

Intriguingly, though, one can also regard the Cartesian position, with only a little awkwardness, as providing another instance of a scheme that was at least analogous to this one. After all, whereas extension was the essence of all Cartesian bodies alike, their actual individuation and differentiation required something more. On the face of it (though there is room to dispute this standard interpretation), it seems to have depended on the application of a variety of motions to different portions of this extension; but such motions were entirely accidental to the corporeal substance itself. God could have created a completely undifferentiated expanse of quiescent extension, and then just left it that. It was only by *additionally* applying motion to various portions of this extension that he brought about the diversity of sensible objects we find in the world around us.²⁵ Prior to the introduction of such motions,

²⁰ See especially Sorabji 1988, chs. 1–3. Also Grant 1981, pp. 14–15, 268 n. 8, 272–273 nn. 37–41.

²¹ More in Hotham 1650, unpaginated dedicatory poem. Compare, much later, More's equally double-edged comment on the Jewish cabbala: 'I do not doubt but there is pretious gold in this Cabbalistical rubbish, which the discerning eye will easily discover.' *Conway Letters*, p. 351 (More to Conway, 5 February 1671/2).

²² Hotham 1650, p. 33.

²³ Hotham 1650, p. 35. The text actually reads 'tircumscrib'd': clearly just a misprint.

²⁴ On Hotham in relation to More, and their exchange of verses to one another, see Hutton 1990b, pp. 169–171 and *passim*.

²⁵ See Descartes 1991, pp. 49–52/AT 8A:52–55/CSM 1:232–234 (pt. 2, §§22–27).

extension would constitute an entirely homogeneous, indefinite expanse, capable of receiving any kind of motion at all and consequently capable of supporting any kind of body at all. There was therefore a sense in which Cartesian extended substance as such, although its extension was already actual, could nevertheless be regarded as constituting merely the *potentiality* of individual bodies. All or any of the whole indefinite variety of possible bodies could be drawn out of this corporeal substratum, as it stood as the purely passive recipient of the motions whereby they would be individually generated.

2 Hyle, Atoms and Space in More's *Philosophicall Poems*

In the last section, I used the expressions 'matter' and 'prime/first matter'. These are, after all, the more familiar terms in English discussions of these theories (not to mention being the ones employed in the English translations from which I was there quoting). But those terms derive from Latin, whereas More himself tended to prefer Greek etymologies. Consequently, the term that he usually tended to use in his own discussions was not 'matter' but 'Hyle'. No philosophical implications need to be read into this purely terminological preference: indeed, More himself would sometimes observe that 'first matter' was simply another name for his own Hyle.²⁶ As for his theory of the nature of such Hyle/matter, that would develop over the course of his career, as we will be tracing in some detail. But his starting point was a faithful recapitulation of Plotinus's position, a position which, at least as far as the really essential points were concerned, conformed to that of both Plato and Aristotle anyway.

In More's first philosophical poems of 1642, following Gnostic tradition, he characterised the universe as an 'Ogdoas' (more usually written 'Ogdoad'), a sequence of eight emanations from God/The One.²⁷ Nowadays, we may tend to feel that existence has to be an all-or-nothing deal. But, in an age before the existential quantifier was invented, it was still completely orthodox within early modern Platonism, and quite normal outside it too, for philosophers to allow that different things could possess various different degrees of being. Thus, the eight levels of More's Ogdoas formed a hierarchy of gradually diminishing reality.

²⁶ *The Complete Poems*, p. 55a–b (*Psychathanasia*, bk. 1, cant. 4, sts. 1–2); see also p. 148a (notes upon *Psychathanasia*, bk. 1, cant. 1, st. 16); and p. 162a (The Interpretation Generall, 'Hyle, Materia prima').

²⁷ See *The Complete Poems*, pp. 13a–21b, (*Psychozoia*, cants. 1 and 2, as far as st. 23 of the latter; but especially cant. 2, sts. 13–15). Also, more succinctly, see pp. 54a (*Psychathanasia*, bk. 1, cant. 3, st. 23); and 108a–b (*Antipsychopannychia*, cant. 2, sts. 4–8). And, from the 1646–47 additions, see passim throughout the notes upon *Psychozoia* and *The Infinity of Worlds*. On More's Ogdoas, see Fouke 1997, ch. 2; Crocker 2003, ch. 3. This Ogdoas is also discussed in various works of Alexander Jacob (for instance Jacob 1991, pp. 104–105): but Jacob's interpretations of More, both here and elsewhere, need to be treated with considerable caution.

More called the first three levels ‘Ahad’ (or alternatively ‘Atove’), ‘Aeon’, and ‘Psyche’. These were, respectively, The One (or The Good), Eternity (Mind), and Soul. But, of course, although it might have suited More to express himself in Platonic (or, as we would say, Neoplatonic) terms, he was additionally a Christian. Consequently, he was keen to explain that these three hypostases were identifiable with the three persons of the Holy Trinity.²⁸ The next four levels in the Ogdoas were then ‘Semele’, ‘Arachne’, ‘Physis’ and ‘Tasis’, which More explicated as Imagination, Sense-perception, Nature and Extension respectively. Finally, at the very bottom, there was ‘Hyle’.

More described this Hyle as the ‘last Extreme, the farthest off from light’, and he wrote of it in the most contemptuous terms: ‘old hag, foul, filthy, and deform’, ‘Natures deadly shadow’, ‘horrid cave, and womb of dreaded night’, ‘Mother of witchcraft’, ‘Infernall Night’, and ‘this mirksome sourse, *first matter* light’ (which is to say, ‘this murky source, named “first matter”’).²⁹ Just as for Plotinus, to the extent that it was the most distant emanation from The Good, it would naturally turn out to be something evil. And, again following Plotinus, it also turned out to be as far from true Being as anything could possibly be, for it was really nothing more than pure potentiality: ‘That last is nought but potentiality, / Which in the lower creature causeth strife, / Destruction by impossibility.’³⁰

Specifically, it was ‘the Potentialitie / Of Gods dear Creatures’, and ‘the possibility / Of all created beings’.³¹ But it also involved ‘impossibility’, and herein lay one of the main reasons why More considered it to be so dreadfully bad. In the definition of ‘Hyle, Materia prima’ in *The Interpretation Generall* of the 1647 edition of More’s collected poems, More observed not only that it was the ‘dark fluid potentiality of the creature’, but also that it was ‘the straitnesse, repugnancy, and incapacity of the creature: as when its being this, destroyes or debilitates the capacity of being something else, or after some other manner.’³² When a certain possible being was brought into actuality, the underlying matter would thereby be barred from simultaneously taking on a contrary form. For instance, although Hyle could lend itself

²⁸ *The Complete Poems*, pp. 10a–12b (To the Reader, upon the first Canto of *Psychozoia*).

²⁹ *The Complete Poems*, pp. 14a, 20a, 114b, 55a (*Psychozoia*, cant. 1, st. 9; cant. 2, st. 9; *Antipsychopannychia*, cant. 3, sts. 24–25; *Psychathanasia*, bk. 1, cant. 4, st. 2).

³⁰ *The Complete Poems*, p. 54b (*Psychathanasia*, bk. 1, cant. 3, st. 24).

³¹ *The Complete Poems*, pp. 55a, 56b (*Psychathanasia*, bk. 1, cant. 4, sts. 1, 9). There is a passage in *Psychathanasia* where More appeared to indicate that this really was supposed to mean *all* created beings, even those that might standardly be regarded as wholly immaterial. The fact that Hyle was ‘plain potentialitie’, he wrote, did ‘not straight inferre certain mortalitie. / For the immortal Angels do consist / Of out-gone act and possibilitie’ (op. cit, p. 55b: *Psychathanasia*, bk. 1, cant. 4, sts. 2–3). This would tie in with the continuous nature of the supposed hierarchy of reality: anything below God would ipso facto need to be less perfect, i.e. less fully actual, than him; and consequently would need to display at least some faint trace of unactualised potentiality. However, in More’s discussions of first matter after 1642, he made it clear that he was only really interested in the possibility of *corporeal* creation.

³² *The Complete Poems*, p. 162a (*The Interpretation Generall*: ‘Hyle, Materia prima’).

equally well to a round form or to a square one, it was necessarily incapable of taking on both of these figures at once. And the effect of this impossibility of the two forms' existing together was to impose constraints on the world's overall plenitude. Whatever forms (and arrangements thereof) it happened to instantiate, there would necessarily be others that it lacked. But this restriction rendered the world imperfect; and More lay the blame for such imperfection squarely at Hyle's door. Thus, in his posthumous *A Collection of Aphorisms* (which seem to have originated at more or less the same time as these poems), More would write: 'we may plainly see the *Root of Deficiencies* in the World; which flow not from GOD, but... from that *hulē* or *anangkē*, truly so called that *Metaphysical Matter* and *Incompossibility*.'³³

As with Plotinus and Ficino, More's attitude to Hyle was not that it simply did not exist. It certainly made more sense to say that Hyle existed than to say the same thing of, for instance, a round square or a blictri.³⁴ In a later discussion, More observed that Hyle was in fact not 'the most absolute *Non-ens* that is conceivable'. There was something else that needed to be placed even lower in the hierarchy than impossibility, namely impossibility itself, 'which would be the state of all things, were there not a God'.³⁵ Unlike outright impossibility, Hyle was at least a genuine emanation from God/The One. And yet, for all that, it still remained a maximally distant emanation from that source. More described Hyle as 'perfect penurie' and 'pent privation'.³⁶ Existence could be meaningfully ascribed to a privation, and the content of such an ascription would indeed involve a reference to determinate real things. But the existence of the privation as such would really consist in the *absence* of these things, and so Hyle's own mode of existence still remained a fundamentally negative, relative one. Even if Hyle was not quite nothing at all, it might as well have been.

All in all, then, More was content in 1642 to follow Plotinus's lead as he set out his own account of Hyle/matter. It was pure privation and evil, and it constituted merely the possibility of real things. In his later writings, however, More would come to develop this basic notion in not one but two different ways. On the one hand, he would offer a spatial conception of Hyle, characterising it as an infinite, antemundane void, laid out ready to admit impenetrable, corporeal extensions into its own

³³ *A Collection of Aphorisms*, pp. 13–14 (part 2, aphorism 1). This '*hulē*' was, of course, just the actual (though here transliterated) Greek of More's anglicised term, 'Hyle'. As for '*anangkē*', this meant 'necessity'. We also find More referring to '*Hyle* or *Ananke*' at *The Complete Poems*, p. 54a (*Psychathanasia*, bk. 1, cant. 3, st. 23); and, in *The Interpretation Generall*, he would explain: '*Ananke. Anangkē*. The same that Hyle is. But the proper signification of the word is Necessity' (p. 159b). This parallel is further evidence of an early date of composition for these aphorisms (see above, p. 19 n. 57).

³⁴ 'Blictri' was a nonsense word, deliberately left undefined, which was used by some early modern authors (and earlier ones too, right back into classical times) to illustrate how a statement could have the formal structure of an assertion of existence and yet remain utterly vacuous. See, for instance, Malebranche 1997a, p. 25 (dial. 1, §7); Toland 1997, pp. 81–82 (sect. 3, ch. 4). Also, using the variant 'Blityri', Leibniz 1951, p. 117 (*Theodicy*, §76).

³⁵ *Conjectura Cabbalistica*, p. 185 (*Appendix to the Defence of the Philosophick Cabbala*, ch. 8, §6).

³⁶ *The Complete Poems*, pp. 108b, 114b (*Antipsychopannychia*, cant. 2, st. 8; cant. 3, st. 25).

penetrable dimensions. On the other hand, he would present it as a homogeneous collection of atoms, not yet bound together with one another, but ready to serve as the constituents of all possible bodies by becoming bound in a variety of different ways. In 1642, neither of these conceptions was offered. In the 1660s, as we will see below, More would offer both of them as a pair of genuinely competing alternatives, before finally settling firmly on the second one. In 1646–1647, however, these ostensibly rival accounts of Hyle were effectively both embraced together as one.

Already in the 1642 poems, More had introduced the symbol of a Cone, to represent the total sum of reality. At the base of this Cone was God ('Ahad', The One), and it then ran through the various subordinate levels of the Ogdoas, finally arriving at a cusp that would coincide with the very lowest level thereof. According to *Antipsychopannychia*, 'What's infinitely all things' could be found at one end, while 'What's infinitely nothing' had its place at the other end.³⁷ More identified the point of the Cone with 'old *Nothingnesse* / Hight [i.e. named] *Hyle*'.³⁸ But then, in 1646 and 1647, the situation became more nuanced. In the Notes and The Interpretation Generall to the 1647 *Philosophicall Poems*, More began to refer to what he now called the 'real' cuspis of the Cone. Indeed, this cusp was not merely being reified in some vague sense: More would also refer specifically to 'the Cuspidall *particles* of the Cone' (emphasis added).³⁹ Where the Cone had formerly been presented as a purely symbolic device, More now discovered a more literal sense in which it could be construed as terminating in a point. Hyle was now being presented not merely as a purely metaphysical potentiality, but as an *atom*.

Throughout his career, More was keen to draw a distinction between atoms and bodies. Even though the former were the basic building blocks out of which the latter were compounded, the individual atoms themselves were, strictly speaking, not corporeal (and not spiritual either). Although it might have been possible to distinguish parts within an atom intellectually, an atom certainly did not have really 'discerpible' parts outside parts, which More treated as a defining characteristic of body. In the poems, extension—and, with it, body—was characterised as 'Tasis', but this was located above Hyle in the Ogdoas, at the seventh level as opposed to the eighth. However, even if atoms were not themselves corporeal, the atomic level could nevertheless be regarded as constitutive of the *potentiality* of the corporeal level, insofar as all corporeal things were ultimately compounded out of individual atoms that could be combined in infinite ways to produce bodies of every different kind.

Now, the atoms certainly could not explain the existence and nature of bodies by themselves. They were purely passive, and they could only be bound together into their various compounds by higher, spiritual forces. Moreover, since the Cone would in fact terminate in a *single* cuspidal particle, this particle was first going to need to be infinitely multiplied, and the results juxtaposed, before such forces could have

³⁷ *The Complete Poems*, p. 108b (*Antipsychopannychia*, cant. 2, §9).

³⁸ *The Complete Poems*, p. 114b (*Antipsychopannychia*, cant. 3, §25).

³⁹ *The Complete Poems*, p. 160a (The Interpretation Generall: 'Body').

sufficient materials to do anything with at all. Of body/extension/Tasis, More wrote: 'I conceive the body of the World to be nothing else but the reall Cuspis of the Cone even infinitely multiplied and reiterated. *Hyle* to be nothing else but potentiality: that to be an actual Centrality, though as low as next to nothing.'⁴⁰ This task of reiterating the real cusp of the Cone, and of laying out the resulting infinite multitude of atoms side by side to produce Tasis, was allotted to Psyche. Psyche was positioned at the third level of the Ogdoas, and it was identified both with the Plotinian Soul and, in more Christian terms, with the Holy Spirit. Thus, More would write of the sensible world: 'it is intire and is the same that *Tasis* in *Psychozoia*. But the centre of *Tasis*, viz. the multiplication of the reall Cuspis of the Cone (for *Hyle* that is set for the most contract point of the Cuspis is scarce to be reckoned among realities) that immense diffusion of atoms, is to be referred to Psyche.'⁴¹ This multiplication would generate an infinitely extended space. It might be recalled from the last chapter that space as such was being described in 1646 as 'empty' and 'void', even as More stressed that no part of it was left unstuffed with atoms. It was void only to the extent that, as yet, it would contain no compound bodies. Space was not and in fact *could* not be devoid of atoms, because these juxtaposed cuspidal particles were precisely what *constituted* space. Even in the original 1642 argument for the existence of atoms, More arrived at his conclusion through an examination of the parts of *extension*, and the conclusion he actually drew there was that slight atoms were the sole parts of *quantity*.⁴² The issue of whether or not this quantity should be construed as corporeal did not, on the face of it, have any particular bearing on the argument that More was there presenting. So it would seem that, for More at this time, space itself must have had a granular structure, rather than being a smooth geometrical continuum. Space had smallest parts, such that no distance of *any* kind, corporeal or otherwise, could be less. Where the classical atomists had regarded atoms and empty space as polar opposites, More felt that space itself was *made of atoms*.

But this infinite, atomised space, although it was prior to and independent of genuine bodies, would not remain devoid of such things for very long. A variety of atomic compounds would be produced within it when certain specific groups of atoms were affected in such a manner as to make them no longer merely lie peacefully alongside one another, but be actually integrated into a macroscopic whole. More described this integration as a process of 'conspissation', an archaic term for coagulation or thickening. More would later be using the same term in a more literal sense, writing in *The Immortality of the Soul* of how a spirit in an aerial vehicle 'may *conspissate* the *Air* by directing the motion thereof towards her', so that, 'by conspissating her Vehicle, she may make her self *visible* to us.'⁴³ He presented the

⁴⁰ *The Complete Poems*, p. 142a (notes upon *Psychozoia*, cant. 2, st. 6).

⁴¹ *The Complete Poems*, p. 164a (The Interpretation Generall: 'Quantitative').

⁴² *The Complete Poems*, p. 51b (*Psychathanasia*, bk. 1, cant. 2, st. 56). See pp. 44–46 above.

⁴³ *The Immortality of the Soul*, pp. 169–170, 180 (bk. 3, ch. 3, §2; ch. 5, §2). The word 'conspissation' bears an evident relationship to the word 'spissitude', a term that will turn out to be of prime importance in More's later discussions of the nature of spiritual extension: see Chap. 5 below.

same theory of aerial vehicles in *An Antidote Against Atheism* too, and there he expressed it in more familiar terms, referring to ‘coagulated’ air.⁴⁴ In the context of the discussion that currently concerns us, More’s use of such terms was bound to be more metaphorical than this: but these were the terms he chose. In the definition of ‘Body’ from *The Interpretation Generall of the Philosophicall Poems*, he explicated its nature as ‘the conspissation or coagulation of the cuspidall particles of the Cone, which are indeed the Centrall Tasis, or inward essence of the sensible world. These be an infinite number of vitall Atoms that may be wakened into divers tinctures, or energies, into Fiery, Watery, Earthy, &c.’⁴⁵ When specific groups of atoms came to be congealed together in a variety of different ways—deriving various degrees of resistance as a result of this process of thickening—they would manifest themselves sensibly in the forms of these various different elements.

However, the responsibility for this second stage in the generation of bodies was no longer laid solely at Psyche’s door, as the first one had been. Instead, ‘Physis’ (Nature) would now get in on the act, this being a purely vegetative and plastic, formative principle (or a multitude of such principles), below even sensation and imagination, let alone the three hypostases of God himself. And thus, as More put it in the definition of the ‘Cuspis of the Cone’ that he included in *The Interpretation Generall* (as well as in the *Particular Interpretation of Democritus Platonissans*):

The multiplide *Cuspis* of the *Cone* is nothing but the last projection of life from *Psyche*, which is a liquid fire, or fire and water, which are the corporeall or materiall principles of all things, changed or disgregated (if they be centrally distinguishable) and again mingled by the virtue of *Physis* or Spermatocall life of the World; of these are the Sunne and all the Planets, they being kned together, and fixt by the centrall power of each Planet and Sunne. The volatile AEther is also the same, and all the bodies of Plants, Beasts and Men. These are they which we handle and touch, a sufficient number compact together. For neither is the noise of those little flies in a Summer-evening audible severally: but a full Quire of them strike the eare with a pretty kind of buzzing.⁴⁶

Notwithstanding the fact that this passage—like the *Philosophicall Poems* at large—is couched not only in some rather esoteric and old-fashioned philosophical concepts, but also in some decidedly archaic language, it does nevertheless provide a succinct summary of some of the main theses of *Democritus Platonissans*. First, Hyle (matter) was no longer characterised as *merely* a pure potentiality. Instead, it consisted in a real cuspidal particle which, by being infinitely multiplied, the resulting plurality then being juxtaposed, would generate Tasis (extension, space). This initial generation of Tasis was attributed to Psyche (Soul/Holy Spirit); but then the responsibility for the production of particular sensible bodies out of this extension was laid at the door of Physis (Nature).

This void space was ‘liquid’ in the analogical sense that, being as yet entirely unformed, it was indifferently receptive to any form that Physis might give it.

⁴⁴ *An Antidote Against Atheism*, p. 125 (bk. 3, ch. 12, §2).

⁴⁵ *The Complete Poems*, p. 160a (The Interpretation Generall: ‘Body’).

⁴⁶ *The Complete Poems*, p. 160b (The Interpretation Generall: ‘Cuspis of the Cone’).

The formative power of nature would then get to work in kneading certain bundles of particles together, compacting and congealing them into various sensible compounds. Our senses could not detect uncompounded atoms, but a number of these clotted together could reveal themselves collectively to us. As we saw in the last chapter, More had declined to include 'antitypia' (resistance) in the definition of the 'naked essence' of body he had given in *Psychathanasia*, instead opting to define it merely as 'Matter extent in three dimensions'.⁴⁷ But that did not mean that he did not still think that bodies possessed some kind of power to resist penetration: of course he did. The point was that this 'naked essence' was going to need to have application both to sensible bodies and to supposedly 'empty'—though still stuffed with atoms—space. The difference between body and space, in these poems, did not consist in the raw materials that constituted both of them. At the level of essence, there was no need to differentiate between them at all. The difference rested merely on whether certain clumps of these atoms were congealed and bound together, or else just lay indifferently alongside one another. In the former case, we would have a resistant—and consequently tangible—body; in the latter, we would not.

More portrayed the extended world as kind of stole in which Psyche would clothe herself, wherein the shining celestial bodies would play the role of so many ornamental knots, the formation of which was described in the following terms:

All these be knots of the universall stole
 Of sacred *Psyche*; which at first was fine,
 Pure, thin, and pervious till hid powers did pull
 Together in severall points and did encline
 The nearer parts in one clod to combine.
 Those centrall spirits that the parts did draw
 The measure of each globe did then define,
 Made things impenetrable here below,
 Gave colour, figure, motion, and each usuall law.⁴⁸

It was thus by means of this combinatorial process of condensation that impenetrability—or, at any rate, some perhaps not quite yet fully defined 'antitypia'—would arise, whereby the pure and thin first matter would take on a more definitively corporeal character. It would become specifically figured and mobile and, apparently, coloured. (Did this latter point mean that, at least in these early writings—for this was certainly not the case later on—colour was placed on a par with those primary qualities of figure and motion, rather than being regarded as a mind-dependent sensible quality? The evidence is, frankly, too sketchy for us to know for sure).

But, all in all, what should be clear is that the system of *Democritus Platonissans* was really rather complicated. And in fact we have still only just scratched the surface—we still need to discuss More's contention that genuinely corporeal matter was just a fantasy anyway, with body really just a fixed spirit, points to which we

⁴⁷ *The Complete Poems*, pp. 60a, 160a (*Psychathanasia*, bk. 2, cant. 2, st. 12; The Interpretation General: 'Body'). See pp. 66–67 above.

⁴⁸ *The Complete Poems*, p. 92a (*Democritus Platonissans*, st. 12).

will return in Chap. 7. For present purposes, the important points are these: (i) that Hyle or first matter, which had been characterised as a *pure* potentiality in 1642, was now being given a more definite character, reified in the first instance as an *atom* or real cuspidal particle; but (ii) that this was not the end of the story, for, before the level of genuine *bodies* could be reached, the creative process first had to pass through an infinite empty *space*, which was constituted by the juxtaposition of those very atoms themselves. This space, strictly speaking, was placed at the seventh level of the Ogdoas, rather than at the eighth: but it did still retain something of the character of Hyle nevertheless, in that, since any part of it could be conspissated by Physis to form any kind of body at all, the possibility of all of those bodies could be collectively resolved into it.

But the *Democritus Platonissans* system was not merely complicated: it was unique. It was not only significantly different from the original 1642 system before it, but it was even more remote from the system that More would gradually work his way towards subsequently. We already noted More's double reversal on the issue of the infinity of the corporeal universe: but More's theory of prime matter itself underwent profound changes in his subsequent writings too. In a nutshell, the two elements of this 1646–1647 conception of the potentiality of body—atoms and space—would gradually become more and more firmly separated.

3 More's Equivocation on the Nature of Hyle, 1653–1662

In More's 1648–1649 correspondence with Descartes, although they certainly did discuss the nature of body, the nature of Hyle or first matter as such was not addressed head-on. The topic did feature in More's 1650–1651 exchange with Thomas Vaughan, but that discussion does not actually reveal very much about More's own attitude towards it either. Instead, More was content to rebuke Vaughan for the—as he saw it—wholly mysterious and incoherent treatment of the topic in Vaughan's own writings. (The irony being that, as Vaughan himself pointed out, a lot of what he had said about matter—that it was a 'horrible empty darkness' and such like—is almost indistinguishable from the way that More himself had described it in his poems).⁴⁹ To find the next important discussion of first matter in More's own works, we need to jump forward to 1653's *Conjectura Cabbalistica*.

What More was offering in this work was a threefold interpretation—literal, philosophical and moral—of the first three chapters of the book of Genesis. He felt that the story of the six days of creation could simultaneously support these three different readings. The very same sentences could take on very different meanings,

⁴⁹ See Vaughan 1650a, here at p. 4; *Observations upon Anthroposophia Theomagica, and Anima Magica Abscondita*, pp. 14–15 (upon *Anthroposophia Theomagica*, pag. 9); Vaughan 1650b, pp. 39–44 (observation 5); *The Second Lash of Alazonomastix*, pp. 100–101 (upon [page 39], observation 5).

and provide different information appropriate to the different areas of inquiry that one happened to be pursuing: 'these three distinct *Cabbala*'s have no intended either agreement or disagreement one with another, as having no mutual reference at all, but grow out of the *Letter*, which is common to all three, as three several sorts of Flowers out of one bed of Earth in a Garden.'⁵⁰ The literal cabbala was precisely that: a direct paraphrase of the story. In the philosophical cabbala, however, the items that were said to be created on the six days would take on more symbolic, metaphysical significations. Indeed, the numbers of the days themselves—no longer representing a genuine sequence of times, as they had done in the literal cabbala—would take mystical, numerological meanings, related to the natures of the things created.⁵¹ As for the moral cabbala, More there sought to extract insights into '*divine Morality*, such as is ingendred in the Soul by the operation of the holy Spirit, that inward living Principle of all godliness and honesty.'⁵²

Our own concern being a metaphysical one, we can limit our attention to the philosophical cabbala alone. And indeed we can limit it to one specific portion of the text of Genesis:

In the beginning God created the heaven and the earth. And the earth was without form, and void; and darkness was upon the face of the deep. And the Spirit of God moved upon the face of the waters. And God said, Let there be light: and there was light. And God saw the light, that it was good: and God divided the light from the darkness. And God called the light Day, and the darkness he called Night. And the evening and the morning were the first day. And God said, Let there be a firmament in the midst of the waters, and let it divide the waters from the waters. And God made the firmament, and divided the waters which were under the firmament from the waters which were above the firmament: and it was so. And God called the firmament Heaven. And the evening and the morning were the second day. And God said, Let the waters under the heaven be gathered together unto one place, and let the dry land appear: and it was so.... And the evening and the morning were the third day.⁵³

Now, it would appear from this passage that there had actually been a double creation of the heaven and the earth. Both of them were apparently made in the beginning of the first day, but heaven was then made for a second time on the second day, and earth—or 'dry land', at any rate—was made for a second time on the third. This was precisely the sort of thing that struck More as not merely demanding a careful exegetical explication of the literal sense of the text, but as being pregnant with several layers of hidden, philosophical meanings.

More decided that the distinction between the 'earth' of the first day and the 'dry land' of the third should be understood in terms of a distinction between prime matter and body. The symbolic 'earth' of the first day represented merely 'the *Potentiality*, or *Capability* of the *Existence of the outward Creation*: This Possibility being exhibited to our mindes as the result of the Omnipotence of God, without

⁵⁰ *Conjectura Cabbalistica*, p. 171 (*Appendix to the Defence of the Philosophick Cabbala*, ch. 7, §3).

⁵¹ *Conjectura Cabbalistica*, p. 79 (*The Defence of the Philosophick Cabbala*, upon ch. 1, vers. 9).

⁵² *Conjectura Cabbalistica*, p. 209 (*The Defence of the Moral Cabbala*, upon ch. 1).

⁵³ Genesis 1:1–9, 13, King James Version.

whom nothing would be, and is indeed the utmost shadow, and darkest projection thereof.⁵⁴ This reference to the possibility of creation immediately suggests that we are here dealing with the ‘Hyle’ of the poems (even though More did not actually use that word at this point), an impression that is further confirmed by an extra clause that More appended to this sentence in the 1662 edition, where he observed that this possibility also ‘involved the *Incompossibility* and *Incommensurability* of things’.⁵⁵ Just like prime matter as traditionally conceived, this symbolical earth was—as the Genesis text explicitly states—without form. As More observed: ‘this *Earth* was nothing but Solitude and Emptiness, and it was a deep bottomless Capacity of being whatever God thought good to make out of it, that implied no contradiction to be made. And there being a possibility of creating things after sundry and manifold manners, nothing was yet determined, but this vast Capacity of things was unsettled, fluid, and, of it self, undeterminate as *Water*’.⁵⁶ This first day’s earth, as More explained, could indeed be regarded as matter, just as long as this was understood as ‘*Matter* merely *Metaphysical*, and indeed no *real* or actual entity.’⁵⁷ Indeed, in *The Defence of the Philosophical Cabbala*, continuing the discussion later on in the same volume, More did finally make the identification explicit, between this metaphysical matter and the Hyle of the poems: ‘See *Hyle* in my *Interpretation general* at the end of my *Poems*; where you will find that I have settled the same Notion I make use of here, though I had no design then of expounding *Moses*’.⁵⁸

More contrasted this purely metaphysical prime matter with the matter of the heavens as created on the second day, which was indeed ‘very subtile and *AEthereal*’, but which was real physical matter nevertheless.⁵⁹ And, again, he contrasted it with the third day’s earth, which was understood as the grosser body of this terrestrial planet. However, in the 1653 edition, that was about as far as More’s discussion of prime matter went. What he did not do there was explicitly to yoke it either to a theory of atoms, or to a theory of space, or—as in *Democritus Platonissans*—to a combination of the two. There were a lot of other verses of Genesis that he also wanted to discuss, and indeed to discuss three times over, so he did not want to waste any time getting bogged down in issues of only peripheral relevance to his overall project in this work. Now, in the Appendix that More would be adding to *Conjectura Cabbalistica* in 1662, some of the points that he had rather glossed over in the original presentation would finally get more fully developed: so we will be

⁵⁴ *Conjectura Cabbalistica* (1653 edition), p. 23 (*The Philosophick Cabbala*, ch. 1, §1).

⁵⁵ *Conjectura Cabbalistica*, p. 11 (*The Philosophick Cabbala*, ch. 1, §1).

⁵⁶ *Conjectura Cabbalistica*, p. 11–12 (*The Philosophick Cabbala*, ch. 1, §2).

⁵⁷ *Conjectura Cabbalistica*, p. 12 (*The Philosophick Cabbala*, ch. 1, §5).

⁵⁸ *Conjectura Cabbalistica*, p. 75 (*The Defence of the Philosophick Cabbala*, upon ch. 1, vers. 5).

⁵⁹ *Conjectura Cabbalistica*, p. 13 (*The Philosophick Cabbala*, ch. 1, §8). This heavenly matter was also contrasted with the symbolic ‘heaven’ of the first day, which was not material in either a physical or a metaphysical sense, but which was rather understood as ‘*The whole comprehension of Intellectual Spirits*, Souls of men and beasts, and the Seminal forms of all things, which you may call, if you please, *The World of Life*’: p. 11 (*The Philosophick Cabbala*, ch. 1, §1).

returning to this discussion in a moment. First, though, we should just take a brief look at a piece he wrote in the interim, one that also has something to contribute in this same general area.

Although the topic of prime matter did not really feature in the original 1653 edition of *An Antidote Against Atheism*, it did rear its head in a passage from Chap. 7 of its own 1655 Appendix. More came at the topic rather obliquely in this passage, in the course of a rejection of the suggestion that corporeal matter might exist necessarily. That suggestion arose out of the observation that there was a necessarily infinite space, coupled with the thought that this infinite extension could only properly be predicated of body. More countered that latter thought by offering a number of alternative accounts of the nature of such extension.⁶⁰ He did not firmly commit himself to any one of these in particular, but he did at least indicate that he regarded them as acceptable positions for his reader to adopt. One way of breaking the link between spatial extension and body, he suggested, would be to regard the former as divine. Another would be to treat it as merely privative. We will be returning to these proposals in later chapters. But the option that really concerns us at present is one whereby this extension, instead of belonging to any *actual* thing (corporeal or otherwise), would instead characterise the *possibility* of body. In other words, it would characterise Hyle or prime matter.

The relevant section of this discussion is only short, so I shall quote it here in full:

There is also another way of answering this Objection, which is this; That this Imagination of *Space* is not the imagination of any real thing, but only of the large and immense capacity of the potentiality of the *Matter*, which we cannot free our Minds from, but must necessarily acknowledge, that there is indeed such a possibility of *Matter* to be measured upward, downward, every way *in infinitum*, whether this *corporeal Matter* were actually there or no; and that though this potentiality of *Matter* or *Space* be measured by furlongs, miles, or the like, that it implies no more any real Essence or Being, than when a man recounts so many orders or kinds of the Possibilities of things, the compute or number of them will infer the reality of their Existence.⁶¹

More was here—and more generally too, after the earliest period of his career—using the word ‘matter’ to mean (as he glossed it in this very passage) corporeal matter, as opposed to prime matter. Nevertheless, when he referred to the ‘potentiality’ of such corporeal matter, it was clearly a notion of Hyle that he had in mind there. And, equally clearly, he was suggesting a spatial conception of such a potentiality, treating it as something genuinely extended in its own right, even though it was not actually corporeal. It is worth reiterating that More was not positively endorsing this position: but he was at least proposing it as a live possibility, even if only one among a number of others.

Returning now to *Conjectura Cabbalistica*, and to its 1662 Appendix in particular, we find just the same general structure in one of More’s discussions there. More again offered alternative options—just two this time—for the reader’s consideration,

⁶⁰ *An Antidote Against Atheism*, pp. 199–201 (Appendix, ch. 7). Also see the discussion in Ward 2000, pp. 256–259.

⁶¹ *An Antidote Against Atheism*, p. 200 (Appendix, ch. 7, §3).

while declining to give his own positive endorsement to either one. It is not easy to tell whether More had simply not made up his mind between these options, or alternatively whether he did have an opinion but felt in the context that it might help his rhetorical purposes if he was to keep quiet about it. What is clear, though, is that he did regard both of these options as viable alternatives, such that it would do his readers no great harm to embrace either one according to their own preferences. And here, unlike in the above discussion from the Appendix to *An Antidote Against Atheism*, first matter was not merely a detail within one of the options: it was the topic of the discussion at large. Continuing the discussion of Hyle from the original 1653 version of *Conjectura Cabbalistica*, More now proceeded to give a fuller explication of what this first matter actually amounted to—or rather, to give *two* fuller explications. One was the spatial conception to which he had tangentially alluded in that passage from the *Antidote's* Appendix. The other was an atomic conception. In 1646, these spatial and atomic conceptions had been unified into a single combined theory of an atomised space. In 1662, they were now being firmly separated as genuine rivals.

And so, in Chap. 7 of the *Appendix to the Defence of the Philosophick Cabbala*, More returned to the question of the symbolic character of the ‘earth’ of the first day, and he again identified it with ‘Metaphysical Hyle’, describing this as ‘the Possibility of this *external* and *material* Creation’ and as ‘the lowest degree and shadow of Being’.⁶² In the following two chapters, he then proceeded to lay out the two rival explications of the nature of this Hyle.

First, in Chap. 8, he offered the spatial conception, now explicitly alluding to that famous passage in *Timaeus* where Plato had hinted at such a link. More enumerated Plato’s classification of the three ranks of things involved in creation—the intelligible archetype, the sensible imitation, and the receptacle—and he wrote of Plato’s description of the third of these: ‘This is his description of *Matter*, as both *Plutarch* and also *Plotinus* supposes. But it is a very suspicious business that he means no more than *empty Space* by it; which he calls *chōra* [space], and which is very hard to conceive what it is, but makes it also the seat and foundation of all generable things.’⁶³ As for Plotinus himself, even though More acknowledged that he ‘flatly denies that it has either rarity, or density, or *magnitude*’ (emphasis added), he also pointed to a passage where Plotinus ‘makes *Matter* such to the Bodies of the world, as an *empty room* is to our Senses.’⁶⁴ In the passage in question, Plotinus had written: ‘The Matter itself—isolated, quite apart from all else, utterly simplex—must remain immune, untouched in the midst of all the interacting agencies; just as when people fight within their four walls, the house and the air in it remain without part in the turmoil.’⁶⁵ Plotinus’s point was simply that matter, in itself, would not be

⁶² *Conjectura Cabbalistica*, p. 175 (*Appendix to the Defence of the Philosophick Cabbala*, ch. 7, §§10–11).

⁶³ *Conjectura Cabbalistica*, p. 183 (*Appendix to the Defence of the Philosophick Cabbala*, ch. 8, §2).

⁶⁴ *Ibid.*

⁶⁵ Plotinus 1992, p. 237 (enn. 3, tr. 6, ch. 9).

altered by the forms that were applied to it. But More read this passage as a corroboration of the much stronger notion that the first matter might indeed be regarded as an immense receptacle space, eternally lying ready to admit bodies into its own pre-existing dimensions. More then proceeded to explore the impossibility and evil that were inherent in this metaphysical Hyle, ultimately concluding that an antemundane empty space would both conform to the theory of prime matter that had been formulated by the ancient philosophers, and also match the character of the void and formless earth that had been described in Genesis.

More did wonder how 'this mere *Capacity* or *Possibility* of corporeal and sensible Beings can be said to be created? For this *Possibility* and *Capacity* seems to be of it self, and to need no Creation.'⁶⁶ It would seem that the possibility of corporeal creation would already reside in God's own eternal and uncreated omnipotence, without any need for any kind of preparatory work on his part prior to the *actual* creation of physical matter. More answered:

That *Creation* is nothing else but an *Emanation* of the Creature from God, as *Aquinas* has determined; and I say, that this *Possibility* and *Capacity* of things, is the utmost *Projection* or *Emanation* from the *Divine* Existence, and would not be without Him. For if He were not, every thing else would be impossible to be. Therefore this *Possibility* depending on Him, and being not a mere nothing according to the *Metaphysicians*, who allow *Ens in potentia* to be truly *Ens*, as well as *Ens actu*, it is rightly said to be *created* by Him.⁶⁷

But it is not clear just how adequate this is as an answer to what More himself acknowledged to be a particularly dangerous query. The possibility of corporeal creation, and even the beings-in-potency themselves as such, should certainly *depend* on God, as More here suggested. But what need was there to suppose them to be *distinct* from him in any sense at all, even just as a 'projection' or 'emanation'? Might it not be argued that they depend on him precisely as his omnipotence depends on him? All the possible effects of that creative omnipotence will reside within it qua possibilities, and will hence depend on God just as an attribute like omnipotence itself depends on the substance in which it inheres, a purely logical notion of dependence that implies no ontological separation whatsoever. In response to this line of thought, More might perhaps have been entitled to suggest (as he would in fact be suggesting in *Enchiridion metaphysicum*, in a different context to be explored in the next section below) that, if the beings-in-potency were going to be allowed to exist in God, it would follow that the corresponding beings-in-act would need to exist in him too, on the grounds that these beings were in fact identical with one another, differing only in their mode of existence. The result would be pantheism, and More certainly did not want that. But More did not actually pursue these considerations any further.

For in any case, in Chap. 9, More went back to the drawing-board, and he began a new account of prime matter, one that would appear to avoid this difficulty (if, indeed, it really was a difficulty at all):

⁶⁶ *Conjectura Cabbalistica*, p. 185 (*Appendix to the Defence of the Philosophick Cabbala*, ch. 8, §6).

⁶⁷ *Ibid.* The Aquinas reference is to *Summa theologica*, pt. 1, qu. 45.

But if it will be an ease to any man's mind to have a more plump and perceptible Object couched under this name *Hyle*, the Text peradventure is not altogether incapable of it. For suppose we should make this *Hyle* real and actual Matter, consisting of those perfect *Parvitudes* (which I have elsewhere described) actually divided one from another, and equally charged with so much motion, or thereabout, as is now conserved in the World; the attributes of that *Hyle* described in *Moses* will agree very well thereto.⁶⁸

More proceeded to explain in detail how this second conception of first matter would agree both with the symbolic description in Genesis and with the Hyle of the ancient Platonists, as well as suiting the more strictly philosophical role he wanted it to play in his own system. For a full description of those perfect parvitudes, More referred his reader back to his earlier discussions of atoms in *The Immortality of the Soul*; and it was here in this chapter of the Appendix to *Conjectura Cabbalistica* that he introduced his new preferred name for such entities: 'physical monads'. Now, these physical monads certainly would need to be individually created by God: but further activity would then be required to bind them together into macroscopic compound bodies, or even just into the (microscopic but nevertheless divisible) particles of Descartes' three elements. Prior to such additional activity, the physical monads themselves—the raw materials out of which all bodies were to be built—could be regarded as providing merely the potentiality of those bodies.

Let us once again recall the words of Genesis. Moses (or whoever) had there written that 'the earth was without form, and void; and darkness was upon the face of the deep. And the Spirit of God moved upon the face of the waters.' More explained that the creation of this 'physical Hyle' (as he called the infinite mass of physical monads) would be 'the *deepest* or *lowest* of the real Creation', and would thus agree with the text's reference to the 'deep'. He explained that 'this *Hyle* is utterly empty of all sensible Forms'—that is to say, without form and void. Since these physical monads were in no manner bound together to one another, the consistency of the aggregate would be of infinite subtlety, and would therefore have been incapable of affecting the senses in any way at all, even if there had been anyone around to sense it. Hence, darkness would be on the face of the deep. 'And lastly,' added More, 'for the *Fluidity* or *Waterishness* of it, it is infinitely more *Water*, that is to say, more *fluid* than Water it self.... So fitly does the nature of this *Physical Hyle* thus described, agree with those Attributes in *Moses* his Text.'⁶⁹ As for the 'Spirit of God' who moved on the face of these waters, More had already identified this in the original *Conjectura Cabbalistica* text as the Holy Ghost.⁷⁰ That is to say, the being who would kick-start the process of gradually informing this amorphous substrate was one and the same as the 'Psyche' of the poems, to whom More had there similarly assigned this first step in the process of turning Hyle into a real corporeal universe.

⁶⁸ *Conjectura Cabbalistica*, p. 189 (*Appendix to the Defence of the Philosophick Cabbala*, ch. 9, §1).

⁶⁹ *Ibid.*

⁷⁰ *Conjectura Cabbalistica*, pp. 74–75 (*The Defence of the Philosophick Cabbala*, upon ch. 1, vers. 2).

Now, this ocean or (as More liked to call it) this ‘abyss’ of physical monads was really very unlike the gross, terrestrial bodies that could be constructed out of it when the monads came to be bound together. More had initially felt that the binary nature of the second day was ‘so express a note’ of the divisibility of physical matter that he had concluded ‘that the *Metaphysical Hyle* belonged to the *First* day, and the *Physical* to the *Second*.’ (Remember that the numbers of the days in the philosophical cabbala were chiefly meant as symbols of the natures of the items created, rather than as a chronological ordering). And indeed this was, he said, a ‘very sober and safe Interpretation’.⁷¹ But now he wondered just how acceptable his new interpretation, which shifted the creation of physical Hyle from the second to the first day, might turn out to be, from this numerological point of view. An *individual* physical monad (like the single cuspidal particle in which the Cone of the poems had terminated) would indeed appear to display the sort of unity that would ‘make it sute with the character of the Day, namely, with an *Unite* or *Monad*’.⁷² But what monadicity could be identified in an *infinite collection* of such monads (or, for that matter, in the *multiplied* cusp of the Cone, which, in the poems, had not been identified with Hyle but rather with Tasis)? In response to the challenge he set himself, More first observed that this physical Hyle was ‘*one* and *simple*, that is to say, exactly *uniform* every where, and *indivisible* into any parts that are of a *different* nature; whereas the *Firmament* in the Second Day is distinguishable into the [Cartesian] *First* and *Second* Element.’ The abyss of physical monads might have been physical in a minimal sense, but it was ‘as good as *incorporeal*’ because it was totally imperceptible. Finally, More reiterated the utter indivisibility of each individual monad, before concluding that the creation of this physical Hyle could, after all, ‘unforcedly be referred to the *First* day’s work’.⁷³

In this 1662 discussion, then, these two alternative conceptions of prime matter were both on the table. On the one hand, the possibility of corporeal creation could be understood in terms of an infinite empty space, laid out ready to receive bodies into its dimensions. On the other hand, it could alternatively be understood as consisting in a homogeneous mass of atoms, not yet bound together but ready to be united into an infinite variety of different compound bodies. Whereas these two theories had been united into a single synthesis in 1646, they were now kept firmly apart. And yet More himself declined to commit himself to either one at the expense of the other: ‘but which to prefer, I leave to the liberty of the peruser.’⁷⁴ Later on, however, he would finally come down firmly in favour of the second, atomic conception of first matter, and he would argue directly against the spatial conception.

⁷¹ *Conjectura Cabbalistica*, p. 190 (*Appendix to the Defence of the Philosophical Cabbala*, ch. 9, §2).

⁷² *Conjectura Cabbalistica*, p. 189 (*Appendix to the Defence of the Philosophical Cabbala*, ch. 9, §2).

⁷³ *Conjectura Cabbalistica*, p. 190 (*Appendix to the Defence of the Philosophical Cabbala*, ch. 9, §2).

⁷⁴ *Conjectura Cabbalistica*, p. 191 (*Appendix to the Defence of the Philosophical Cabbala*, ch. 9, §5).

4 More's Mature Conception of Hyle

Sections 26–28 of the first of More's *Divine Dialogues* of 1668, and Chaps. 6–8 of his *Enchiridion metaphysicum* of 1671, were devoted to the topic of space; and, between them, they set out a radically new way of understanding its nature. I shall have a lot more to say about the position presented in these works, in my own Chaps. 4 and 6 below. For present purposes, the important thing to draw from them is merely that space, as More was now conceiving it, was too *real* to play the role of prime matter any more.

As we have seen, Hyle was supposed to be something infinitely unreal, not to mention infinitely remote from any kind of goodness and perfection. In More's early writings, where he had at least been dabbling with an association between Hyle and space even not quite identifying the two things, we can find him making some very similar statements about space as such (and thereby supporting such an association). Thus, in 1647, More had asked, 'For who will not say that Space or Vacuum is infinitely worse, then any reall thing, and yet its extension is infinite'.⁷⁵ In 1651, he told Anne Conway: 'Distance or extension, in its very nature employes nothing more then this, to have partem extra partem, yⁱ is, to have explicated partes. But pars and Totum, as subject and adjunct and all the rest of logicalall notions, are applicable to Non-entities as well as to Entities, therefore extension or distance in an empty space employes no contradiction.'⁷⁶ This implication that empty space was to be considered a 'non-entity' did not mean that it was like a blictri. Not even logical notions could be applied if there was no subject there to which to apply them. Rather, More was still working with a conception of a gradual hierarchy of reality, from The One at the top down to Hyle at the bottom, the latter having less real being than anything else, but still standing as a fit subject for attribution. The infinite antemundane void, in this early period, was unreal to the extent that there was no *actual* thing there, but only the *possibility* that something should be put there. As we also just observed, even in the 1655 Appendix to *An Antidote Against Atheism*, one of the alternative theories that More was still perfectly happy to offer for his reader's consideration was that 'this Imagination of *Space* is not the imagination of any real thing, but only of the large and immense capacity of the potentiality of the *Matter*.'⁷⁷ However, in that same discussion, one of the other alternatives that More put forward for his reader's consideration was that this space 'must of necessity be a Substance Incorporeal necessarily and eternally existent of it self: which the clearer *Idea* of a *Being absolutely perfect* will more fully and punctually inform us to be the *Self-subsisting God*.'⁷⁸ The contrast should be clear. An identification with a being absolutely perfect—indeed,

⁷⁵ *The Complete Poems*, p. 142b (notes upon *Psychozoia*, cant. 2, st. 12).

⁷⁶ *Conway Letters*, p. 487 (More to Conway, 5 May 1651). In the letter itself, the words 'logicalall' and 'therefore' are doubled up, for no apparent reason.

⁷⁷ *An Antidote Against Atheism*, p. 200 (Appendix, ch. 7, §3).

⁷⁸ *An Antidote Against Atheism*, p. 201 (Appendix, ch. 7, §6).

divine—would plainly not suit the character of Hyle. Indeed, on this alternative view, space would turn out to be the very *opposite* of Hyle. Hyle was supposed to be absolutely *imperfect*. And yet this view of space was the one that More would end up adopting. Space would eventually find itself leaping up More's ontological hierarchy, from near enough the bottom, all the way to the very top.

In the *Divine Dialogues* and *Enchiridion metaphysicum*, this notion that space should be regarded as something absolutely perfect, God's own amplitude, was not merely declared or argued for in general terms. That would certainly have *implied* that it could no longer be understood as the mere possibility of body: but More did more than just imply this. He actually tackled his own earlier speculations head on, and deliberately set about refuting such a theory.⁷⁹ What he did not do, however, was acknowledge that it had indeed formerly been *his* theory. In fact, he did not name any specific adherents of this view at all, but merely gestured at 'some unashamed followers of Descartes who, hardly unwillingly, would represent their great master postulating something of great laziness or thoughtlessness'.⁸⁰

In the fuller of the two presentations of More's refutation of this position, the one in *Enchiridion metaphysicum*, he began by showing that there could be a distance in empty space. I already touched on these arguments in the last chapter: (i) the tower at the edge of the universe would have a definite, calculable distance between its summit and a point some distance away from its base; (ii) a pair of touching globes in emptiness would have a distance of one diameter between the poles of their parallel axes.⁸¹ These distances, *ex hypothesi*, could not themselves belong to any bodies; they would therefore belong to space alone. But More also here insisted that they would need to be measures of an *actual* extension, and not merely a potential one.

However, whatever force this type of argument might have against someone who accepted the Cartesian identification between extension and body, it is rather undermined by More's own conception of body as impenetrable extension. Someone who takes this latter view can happily agree that such distances do indeed mark actual, not potential, *extensions*, and yet still continue to insist that such extensions constitute merely potential *bodies*. By itself, this argument signally fails to get to the heart of the matter. And so More then proceeded to present the 'most perfect and full refutation' of the theory in question.

The principle upon which More's refutation hung was the doctrine that an actual being and the corresponding possible being were really one and the same thing. 'For there is no metaphysician', declared More, 'that does not know that a being in potency, when it is a being in act unites into one and the same being.'⁸² In more twenty-first-century terms, we might characterise More as a believer in

⁷⁹ This is a point that has sometimes been missed in the secondary literature, where the notions of space as potentiality and space as the divine amplitude have occasionally been conflated. See, for instance, Guinsberg 1980, p. 46, or Crocker 2003, p. 150.

⁸⁰ *Enchiridion metaphysicum*, vol. 1, p. 51 (ch. 7, §12).

⁸¹ *Enchiridion metaphysicum*, vol. 1, pp. 51–52 (ch. 7, §13); see also p. 56 (ch. 8, §5).

⁸² *Enchiridion metaphysicum*, vol. 1, p. 52 (ch. 7, §14). See also *Divine Dialogues*, p. 56 (dial. 1, §27).

trans-world identity, as opposed to a theory of counterparts. The complication with that characterisation, however, is that here the identity is not actually going to be trans-world. If one regards the various regions of the antemundane void as constituting the potentiality of the bodies created therein, then these alleged beings-in-potency will be existing in the *same* world as the corresponding beings-in-act. Indeed, they will be existing in the same *places*. The region of space in which a solid body is created will, on this view, be doing double duty, both as the potentiality of that body and as its place. But then, given this doctrine of identity between beings-in-act and beings-in-potency, the body and its place would turn out to be one and the same thing. The effect of the creative act would merely be to draw this single thing out of a state of potentiality into one of actuality; not to put a real thing into the place so much as to reify the place itself. But what More then found was that there was no way to reconcile this identity with the manifest fact that a body could *leave* its place. All of the parts of space, he thought, were utterly immobile, whereas bodies could easily move around and take one another's places. If those places amounted to the potentialities of those bodies, then the latter should not be able to leave the former any more than the former could leave themselves.

To illustrate the problem, More imagined a ring of six cylindrical bodies, B to G, rotating as a whole so that each cylinder would successively come to occupy the place the previous one had just vacated. Initially, cylinder B would have its own place, but it would then enter the place of cylinder C just as cylinder G, in turn, entered the place that it had left. But, More insisted,

if the cylindrical internal place B were nothing apart from the possibility of [corporeal, as opposed to prime] matter, it coalesces into one and the same thing with the very matter of the cylinder B, and yet it can be separated from the internal place B and moved, with the internal place B remaining immobile, as was now demonstrated. And since cylinder B recedes from the cylindrical internal place B, and cylinder G follows in it, it is clear that cylinder G coalesces into one and the same body with that internal place B, and what was even G in potency is now indeed the same in act. And, indeed, only one being in act can be made from a being in potency, nor can a being in act be disjoined from a being in potency as long as it is in act. And, therefore, cylinder B, although it leave the internal place B, and cylinder G, which follows in it, are one and the same cylinder, and yet in different places at the same time; cylinder G indeed is in place B, and cylinder B in C. Can a mortal think of anything more absurd than this?⁸³

As far as More was (now) concerned, if beings-in-potency are identical with beings-in-act, and if place is merely the possibility of body, then two bodies which successively occupy the same place will both turn out to be identical with that place, and hence identical with one another, despite being distant from one another at any given moment. On the basis of this breakdown in the logic of identity, More concluded the internal place of a body was not to be understood as merely the potentiality of that body after all. And so, when More revised *An Antidote Against Atheism* for his *Opera omnia* (vol. 2.2) in 1679, he had second thoughts about that passage from its Appendix. In particular, he added a scholium to the hypothesis that space

⁸³ *Enchiridion metaphysicum*, vol. 1, p. 52 (ch. 7, §14). See also *Divine Dialogues*, p. 60 (dial. 1, §28).

might be only 'the large and immense capacity of the potentiality of the *Matter*'. He was now at pains to warn his reader: 'That this Reply is not so solid as it ought to be, I have sufficiently shewn in the foresaid Treatise, cap. 7. sect. 12, 13, 14', i.e. in this very passage from *Enchiridion metaphysicum*.⁸⁴

Now, this argument effectively stands or falls with that identification between actual and possible beings. The problems only begin to arise when one embraces *both* this identity *and* the notion that space constitutes the possibility of body. Deny either one, and the problems will immediately evaporate. For his part, More clung to the former and consequently dropped the latter. But, notwithstanding More's contention that the identity in question ought to be self-evident to any metaphysician, there is plenty of room to deny it. (Recasting things in contemporary terms again: although theories of trans-world identity might enjoy widespread support, counterpart theory is still a perfectly respectable option, and one that has boasted some very eminent supporters). However, even if More was not entitled to assume that the identity of actual and possible beings would command universal assent, it was at least a prevalent view, especially within Scholasticism.

After all, its roots were firmly Aristotelian. For Aristotle, the identification between an actual and a potential being would simply amount to an identity between the matter and the form of an object. But, of course, this did not cause any difficulties for Aristotle, because he never tried to endow his own prime matter with the kind of immobile extension that characterised Morean space. Indeed, Aristotle himself had already offered near enough the same argument as this Morean one, specifically to refute the original Platonic conception of space as the potentiality of body. Aristotle observed that 'Plato in the *Timaeus* says that matter and space are the same; for the "participant" and space are identical'. He noted parenthetically that this Timaeian account of the 'participant' differed from what Plato had said 'in his so-called unwritten teaching', but that Plato did nevertheless identify place and space.⁸⁵ So then was place to be understood as matter or as form? Aristotle answered:

But it is at any rate not difficult to see that place cannot be either of them. The form and the matter are not separate from the thing, whereas the place can be separated. As we pointed out, where air was, water in turn comes to be, the one replacing the other; and similarly with other bodies. Hence the place of a thing is neither a part nor a state of it, but is separable from it. For place is supposed to be something like a vessel—the vessel being a transportable place. But the vessel is no part of the thing.

In so far then as it is separable from the thing, it is not the form; and in so far as it contains it, it is different from the matter.⁸⁶

⁸⁴ *An Antidote Against Atheism*, p. 230 (Appendix, ch. 7, §3, scholium). In other scholia on this same page, he also responded to one of the other proposals he had made in the course of that same 1655 discussion, namely that distance might be 'no real or *Physical* property of a thing, but only *notional*' by being 'nothing else but the privation of tactual union' (§§4–5). More withdrew this suggestion too, emphasising that space was something real and entirely independent of the bodies that were located in it.

⁸⁵ Aristotle 1984, vol. 1, pp. 356–357 (*Physics*, bk. 4, ch. 2; 209b11–15). See the notes on this passage in Aristotle 1983, pp. 104–107.

⁸⁶ Aristotle 1984, vol. 1, p. 357 (*Physics*, bk. 4, ch. 2; 209b22–31).

Even if not identical, this argument from Aristotle—whom, incidentally, More did not actually mention in his own discussions—was certainly very close to More's, and More's own argument would certainly have been likely to appeal to an Aristotelian (even though an Aristotelian might well have vigorously opposed certain other elements in More's overall theory of space).

In any case, let us take More's argument on board and see where it leaves us. In 1662, there had been two alternative ways of explicating what the potentiality of body really amounted to: the spatial conception and the atomic conception. The former had now been refuted. So presumably, as the last man standing, the latter ought to win by default. And that was precisely how it turned out.

Immediately after this discussion of space in Chaps. 6–8 of *Enchiridion metaphysicum*, Chap. 9 then commenced with a section entitled 'A full and accurate description of prime matter'. Passing silently over what Plato, Plotinus and he himself had earlier said, More now did allude to Aristotle, and he wrote that prime matter was:

not so much an indeterminate thing as Aristotle supposes it, but rather, the understanding of the philosopher in that matter is seen to be indeterminate and confused. Indeed, the nature of prime matter can sufficiently distinctly be described thus, namely, the homogeneous combinations of physical monads which cannot mutually penetrate themselves, nor by their own nature cohere together, and which, although they are contiguous, are however free of activity, and although they can be moved, are nevertheless inert or motionless. This is the most distinct and true description of prime matter before it passes into the condition of what is called secondary matter.⁸⁷

There was no longer any hint of combining this atomic conception with a spatial account, nor even of offering the two as rival competitors.

In the remainder of the chapter, More proceeded to elaborate upon some of the finer details of this atomic theory: we already looked at some of this material in the course of our discussion of atoms in the last chapter above. He also endeavoured to demonstrate that this theory of matter would require there to be active spirits that could not themselves be material—this being his overarching objective in *Enchiridion metaphysicum*, as indeed it was throughout his whole career—in order to explain how these monads could become bound together and move about, and thereby generate the whole variety of the compound bodies that we discover in the world. But, as far as the first matter itself was concerned, More was now entirely unequivocal in his attitude that it was properly to be understood as a *physical* Hyle. The possibility of corporeal creation could be adequately understood in terms of an abyss of physical monads that could be combined and recombined in an infinite variety of different ways. For the thing to appreciate is that this atomic account of first matter will *not* encounter any difficulties like the ones that the spatial account seemed to face. Even someone who does accept the identification between beings-in-potency and beings-in-act, much as they might be forced to abandon the spatial theory, can still happily continue to embrace the atomic theory. After all, a compound body (the being-in-act)

⁸⁷ *Enchiridion metaphysicum*, vol. 1, p. 71 (ch. 9, §1).

and the plurality of physical monads that go into making it up (the being-in-potency, on this alternative view) *can* be identified with one another. The relation between a body and Hyle, on this view, simply boils down to the relation between a whole and its plurality of parts. But many philosophers would already be inclined to identify a whole with its parts anyway, *regardless* of what they might happen to think about that potency-act identification. This atomic conception of Hyle, therefore, will in no way lead to the absurdity that something might leave itself behind when it moves. On the contrary, when the body moves, although it will certainly leave its place behind, it can scarcely fail to take its constituent parts with it. One does not need to be either an Aristotelian or a Platonist to accept *that*.

Chapter 4

Real Space

1 Background

I have already said quite a lot about what philosophers before More's own era thought of space. I have mentioned the classical Epicurean theory of the void, something which possessed three-dimensional extension, but which nevertheless needed to be distinguished from corporeal matter, and subsisted merely as a lack thereof. I have also noted the Platonic notion of an immense receptacle-space, incorporeal in itself and yet laid out ready to receive bodies into its own dimensions as its various parts became moistened or inflamed or whatever it might be. But on neither of these conceptions would space turn out to be anything genuinely *real*. It would be merely a privation or a potentiality. Even the 'imaginary space' of the Middle Ages, although it lent itself to a variety of different interpretations, certainly *could* be understood along similar lines. And I have also pointed out that, in the earlier portion of his career, More was perfectly content to say precisely this too. However, as I discussed in the last chapter, in his later works (*Divine Dialogues* and *Enchiridion metaphysicum*), More argued directly against the notion that space might be construed as merely the potentiality of body. In the present chapter, I shall build upon the rejection of that particular opinion, and more fully explore More's mature theory of space, a theory which, in a variety of different ways, characterised space as something quite abundantly *real*.

Before I return properly to More, however, I had better do just a little more scene-setting, and say a few words about some of the other theories of space that were also in the air, alongside those two notions of the Epicurean void and the Platonic receptacle. Among these various perspectives, one especially important position, given its lingering influence on Scholastic opinion, is naturally going to be that of Aristotle.

Aristotle's main discussion of space—or, more precisely, place—is to be found in the first five chapters of Book 4 of the *Physics*.¹ We already saw a little bit of this discussion at the end of the last chapter, with Aristotle's rejection of the Platonic identification between space and matter. The fundamental basis for this rejection stemmed from the recognition that an individual body could *leave* its place, but could not very well be parted from the matter that constituted it—essentially the same argument as the one that More would be giving in *Enchiridion metaphysicum*. This possibility that different objects could successively occupy the same place, and the same object could move between different places, was indeed what drove Aristotle's wider discussion of the concept. Aristotle set out four possibilities of what the place of a body might amount to: the body's shape, or its matter, or 'some sort of extension between the extremities', or the extremities themselves (211b5–9). But, as I just noted, it could not be the matter. And Aristotle felt that there was no *other* extension between the extremities, besides that of the body itself; which, again, it would take away with it when it left the place. As for the body's shape, that was really nothing distinct from its own outermost surface, instantiating that shape. And the 'extremities' that Aristotle here had in mind were simply the innermost surface of whatever happened to be immediately containing the body. These two surfaces did in fact coincide precisely: that is just what we mean by 'immediately containing'. Nevertheless, they could still be distinguished; and, indeed, they could physically come apart. If the body was to move, it would take its own outer surface with it. But the inner surface of its container could remain behind, to admit whatever new body might come to displace the one that had just left. And so it was this, the innermost surface of whatever happened to be surrounding an object, that Aristotle took to be the place of that object, for this was the only thing that met the criterion of staying where the place ought to be, rather than departing with the thing that was getting displaced. And thus an Aristotelian place, being merely a surface, is a two-dimensional entity. Notwithstanding the fact that this surface might be getting wrapped around in a third dimension, the surface as such possesses no depth whatsoever. Strictly speaking, the proper units of measurement for it ought to be square feet, rather than cubic feet.

One important corollary of this theory of place is that the only theory of local motion that it can support will be a relativistic one. If one body happens to contain another, then the second can be said to remain at rest insofar as it is remaining in contact with the innermost surface of the first, even though the first might be moving to the extent that it is abandoning the innermost surface of *its* own surroundings. A barrel of water, for instance, could be in moving in virtue of the fact that it is successively becoming surrounded by different things; but the water itself will turn out to be staying in exactly the same place throughout, remaining in contact with the innermost surface of the same barrel. (*Where* is the water? Answer: in the barrel). Given that their respective locations are being defined in relation to different bodies,

¹ Aristotle 1984, vol. 1, pp. 354–362 (*Physics*, bk. 4, chs. 1–5; 208a27–213a10). Also see Grant 1981, ch. 1; and the notes in Aristotle 1983, pp. 99–122.

their local motions will themselves be equally defined in relation to those different bodies. There is no one common frame of reference, whereby the places and consequently local motions of different things can all collectively be defined.

Among the Greek commentators on Aristotle, there was already some dissatisfaction with this treatment of the concept of place. John Philoponus, for instance, felt that a body's place should, after all, be understood as a three-dimensional volume within its containing surface, not simply identified with that two-dimensional surface itself. Unlike Aristotle, Philoponus was quite comfortable with the notion that such a spatial extension could both coincide with the corporeal extension that occupied it, and yet nevertheless be distinguished from it.² Although such notions fell back out of favour again during the Middle Ages, they then began to get revived in the sixteenth century. Giordano Bruno (1548–1600), for instance, postulated a continuous and immobile space that would provide places for bodies. This space was three-dimensionally extended, and yet it was distinct from and prior to the corporeal extensions that could be located within it. Leaving certain details to one side, such an opinion was also shared by such figures as Bernardino Telesio (1509–1588), Francesco Patrizi (1529–1597) and Tommaso Campanella (1568–1639).³

Another point on which these sixteenth-century figures agreed was that space ought to be regarded neither as a substance nor as a property of any substance.⁴ Pushing on into the century that really concerns us, the seventeenth, this particularly distinctive characteristic would reappear in the treatment of space that was offered by Pierre Gassendi (1592–1655).⁵ Gassendi, like Philoponus and those sixteenth-century authors, argued for two sorts of extension, the one corporeal and the other spatial. Space, he felt, was already boundless (though void) before God created the corporeal universe, and it would still remain even if he was to destroy that universe. Space itself was uncreated, eternal and utterly immobile. A body would be provided with a place, not by the other bodies that happened to surround it, but by this three-dimensional space itself, as the body came to coincide penetratively with a certain region thereof. The parts of space all being immobile, they could provide an immutably fixed frame of reference to define local motions for all bodies in absolute terms.

Although Gassendi's physics was certainly closely modelled on that of the classical atomists, his notion of space differed from their notion of the void in a very important respect. The Epicurean void had only subsisted in the gaps *between* atoms. As far as the Epicureans were concerned, matter excluded void just as surely as void meant the absence of matter. Put simply, if a place was full of matter, then it was not empty; if it had something in it, then it was not void. Gassendi's space, however, was conceived as a completely homogeneous and continuous expanse, one

² Sorabji 1988, chs. 1–3, especially ch. 2. Also Grant 1981, ch. 2, especially pp. 19–21.

³ Grant 1981, ch. 8.

⁴ In addition to Grant 1981, ch. 8, see Henry 1979.

⁵ Gassendi 1972, pp. 383–390 (*Syntagma*, pt. 2, sect. 1, bk. 2, ch. 1). On Gassendi's theory, see Grant 1981, pp. 206–215.

that would remain intact and underlie the corporeal extensions that were placed into some of its various regions. It could just as well exist full as it could empty.

Gassendi acknowledged that the space he was postulating was similar in some ways to the ‘imaginary space’ that the Schoolmen had claimed to exist beyond the boundary of the corporeal universe: but he explained that it was not ‘to be called imaginary merely because it depends upon the imagination, like the chimera, but because we have an image of its dimensions by analogy to the dimensions that appear to our senses.’⁶ Gassendi did not go down the path that (as we will be seeing in Chap. 6) More would later be going down, of identifying space with the amplitude of God himself. Insofar as Gassendi’s space was neither a substance nor a property, it could not really be associated with God in any direct way at all, whether equated simply with him or with any attribute of his. It was entirely *sui generis*, a third kind of being apart from everything else, whether divine or created (and time was a fourth kind of being). But nevertheless, and importantly, Gassendi did still feel that space (and time) ‘must be considered real things, or actual entities’.⁷ Space, even when it was void, was not *merely* the absence of matter. It was something independent, really existing in its own right.

Another important seventeenth-century figure, who was working in this area simultaneously with (though apparently independently of) More, was Otto von Guericke (1602–1686).⁸ The physical work of this German air-pump researcher led him into some more metaphysical speculations regarding the nature and possibility of the void, which in turn led to him to formulate a theory of space as such. Guericke’s space, like Gassendi’s, was supposed to be infinite, immobile, homogeneous, continuous and penetrable. He regarded it as being not merely possible that certain parts of this space should be left void of body: like Gassendi, he felt that some parts actually were. When a region of space was filled by a body, however, it would then serve as the place of that body. Space was to be ‘considered as a container of all things, infinite in extent, wherein all things exist, live and move and one which presents no variation, alternation and change.’⁹ And, unlike Gassendi, Guericke did go down the path that More was simultaneously treading, and declared this space to be divine: I will have a lot more to say about that kind of manoeuvre in Chap. 6. In the light of this fact, however, the strange thing is that—again unlike Gassendi—Guericke was reluctant to allow that this space, notwithstanding its divinity, was even so much as *real*. Indeed, he stated quite explicitly: ‘Place in itself has no real existence.’ Or, again: ‘We do not regard a vacuum, in terms of its vacuity, as something of real existence, but rather as a lack or absence.’ Or, finally: ‘Space as a container of all things in the world is that which is commonly conceived as being nonexistent.’¹⁰ In an especially striking passage (which, to borrow

⁶ Gassendi 1972, p. 389 (*Syntagma*, pt. 2, sect. 1, bk. 2, ch. 1).

⁷ Gassendi 1972, pp. 384–385, here at p. 384 (*Syntagma*, pt. 2, sect. 1, bk. 2, ch. 1).

⁸ See Grant 1981, pp. 215–221.

⁹ Guericke 1994, p. 89 (bk. 2, ch. 4).

¹⁰ Guericke 1994, pp. 85, 88, 89 (bk. 2, chs. 2, 3, 4).

Edward Grant's phrase, 'can only be described as a lyrical "Ode to Nothing"'), Guericke declared that vacuum, imaginary space, and space itself were all identical, and yet identical with nothing.¹¹

Another seventeenth-century author who, in his own more idiosyncratic way, also undermined the reality of space was Thomas Hobbes (1588–1679). Hobbes interpreted that traditional Scholastic expression, 'imaginary space', very literally indeed. Space, for Hobbes, was merely a phantasm. Bodies certainly did enjoy a mind-independent existence, and they really possessed extension or magnitude. Space, by contrast, was defined as '*the phantasm of a thing existing without the mind simply*; that is to say, that phantasm, in which we consider no other accident, but only that it appears without us.'¹² No particular accidents could be included in the idea of space, because bodies with all manner of different accidents were able (successively) to share the same space. When everything specific to a body was mentally stripped away, all that would be remaining was a conception of its place. This phantasm would certainly *represent* such a place as if it existed without the mind, but the phantasm itself, being abstract, would have a purely mental existence. Given Hobbes's wider nominalism, the fact that a place could be occupied by any of a whole class of different bodies gave it the sort of generic character that, for Hobbes, was enough to rule out its possessing any mind-independent reality. As he wrote:

And as for those, that, by making *place* to be of the same nature with *real space*, would from thence maintain it to be immovable, they also make place, though they do not perceive they make it so, to be a mere phantasm. For whilst one affirms that place is therefore said to be immovable, because space in general is considered there; if he had remembered that nothing is general or universal besides names or signs, he would very easily have seen that that space, which he says is considered in general, is nothing but a phantasm, in the mind or the memory, of a body of such magnitude and such figure.¹³

From the point of view of More's mature discussions of the nature of space, however, the most significant figure is not any of these, but rather Descartes. The crucial discussions in More's *Divine Dialogues* and *Enchiridion metaphysicum*, to which we will turn in the next section below, were in large part designed specifically as criticisms of Descartes' account of the metaphysical foundations of physics, and of the natures of place, body and motion in particular.¹⁴

Although Descartes did allow space or place to have some sort of mind-independent reality, he tied that reality to the reality of bodies in a very direct way. Given Descartes' equation between extension and body, the notion of a kind of incorporeal extension that might be applicable to a distinct space was immediately ruled out. And yet Descartes did still need to provide *some* account of the notion of place, not least because his entire physics was based on corporeal motion, and motion simply meant

¹¹ Guericke 1994, p. 99 (bk. 2, ch. 7); Grant 1981, p. 216.

¹² Hobbes 1839, vol. 1, p. 94 (*Elements of Philosophy*, pt. 2, ch. 7, §2).

¹³ Hobbes 1839, vol. 1, p. 106 (*Elements of Philosophy*, pt. 2, ch. 8, §5).

¹⁴ On Descartes' position, see Garber 1992, especially chs. 5–6; and Des Chene 1996, especially chs. 8–9.

a change of place. Following late Scholastic tradition, he actually offered two such accounts, drawing a distinction between ‘internal’ and ‘external’ place: but he took care to refer only to really existing bodies in the accounts he gave of both of these.

Descartes defined the external place of a body in a broadly Aristotelian manner, as ‘the surface which most closely surrounds the thing placed’.¹⁵ He proceeded to explain that this surface was not to be regarded as a *part* of the body that was in the place. After all, as Aristotle himself had observed, a body can easily leave its place without leaving any part of itself behind. Possessing zero depth, and hence not properly extended in three dimensions, a Cartesian external place turned out not to be a corporeal substance or any part of one, but was merely a mode. As Descartes wrote in the *Principles*: ‘It must be noticed that by “surface” we do not understand here any part of the surrounding body, but only the boundary between the surrounding and surrounded bodies, which is simply a mode. Or to put it another way, we understand by “surface” the common surface, which is not a part of one body more than of the other, and which is thought to be always the same provided that it retains the same size and shape.’¹⁶ Descartes did diverge from Aristotle on one point, with that notion of a *common* surface. Whereas Aristotle had identified the place with the inner surface of the container, as opposed to the outer surface of the thing contained, Descartes referred this mode indifferently to both. In the context of a discussion of Transubstantiation, he wrote: ‘This surface intermediate between the air and the bread does not differ in reality from the surface of the bread, or from the surface of the air touching the bread; these three surfaces are in fact a single thing and differ only in relation to our thought.’¹⁷

As for internal place (or ‘space’), this was more than just a two-dimensional surface: an internal place really was three-dimensionally extended. However, Descartes maintained that the extension of the internal place was not really distinct from the extension that constituted the body that was in that place. The only difference lay in the way we conceived them. When we regard the extension as something particular, we will be conceiving the body as such. When, however, we regard it generically, we will be conceiving the space that contains the body. The genus to which the particular extension belongs will be a certain kind that can be instantiated many times over, by other particular extensions that resemble this one in size and shape, when they come to adopt its situation too. When the original body moves, it will certainly take its own extension away with it, for that is just what the body *is*. But another similar body might nevertheless be regarded as occupying the *same* internal place that the first one vacated, ‘as long as it remains of the same size and shape and maintains the same situation among certain external bodies by means of which we specify that space.’¹⁸ When we come to contemplate the place of that second body, the actual object of our thought will now be *its* own particular extension,

¹⁵ Descartes 1991, p. 46/AT 8A:48/CSM 1:229 (pt. 2, §15).

¹⁶ *Ibid.*

¹⁷ CSMK 241–242/AT 4:164 (Descartes to Mesland, 9 February 1645).

¹⁸ Descartes 1991, p. 44/AT 8A:45/CSM 1:227 (pt. 2, §10).

and this will indeed be distinct from the extension of the body that it has replaced. But this will not entail that we are not still thinking about the *same* place, because we will be conceiving this extension in such an abstract way that we will conceptually arrive at exactly the same genus we had been considering before.

As for motion, or change of place, Descartes defined this as: ‘the transference of one part of matter or of one body, from the vicinity of those bodies immediately contiguous to it and considered as at rest into the vicinity of some others.’¹⁹ It should be observed that all of these definitions, of place and of motion, have referred only to bodies *immediately* contiguous to the one that interests us. As Descartes wrote: “‘location’ in its true and philosophical sense must be determined by the bodies immediately contiguous to that which is said to be moved, and not by those which are extremely distant; as are the fixed Stars in relation to the Earth.”²⁰ This was important for Descartes, because, for the purposes of his physics, he wanted to find a way to define (at most) one true motion for any given body. If one attempts to define places and motions in relation to distant things, then one is immediately faced with the question: which ones? Each body will be distant from indefinitely many others. But the trouble is that those others might well be moving around in relation to one another, thereby serving to define indefinitely many different and incompatible frames of reference. And none of these frames of reference would have any kind of privileged status over the others, for Descartes did not believe that anything (not even the so-called ‘fixed’ stars) was truly fixed in any absolute sense. So there would be indefinitely many different answers, all on a par, to the question of whether and how a body is moving. By contrast, when it comes to immediately contiguous bodies, any given body, at any given moment, has one *and only one* container. (That container might be constituted by a collection of distinct bodies, rather than being a single individual: but at least the make-up of the collection will be clearly defined).²¹ So Descartes opted to define each body’s place and motion in terms of its own surroundings. If it remains within those surroundings, it will qualify as resting in the same place; if it abandons them in favour of some new neighbourhood, it will qualify as moving to a different place. And this did in fact make Cartesian motion absolute in *one* sense, in that the ascription of motion to a body was in no way arbitrary; there really was just one right or wrong answer to the question of whether and how it was moving. But, of course, there was *another* sense in which it was anything but absolute. The motions of different bodies, however unambiguously each one might have been getting defined, were all being defined through *different* frames of reference. Each one was defined in relation to a different containing body, and those containing bodies were moving around in relation to one another.

¹⁹ Descartes 1991, p. 51/AT 8A:53/CSM 1:233 (pt. 2, §25). The translators have bracketed the word ‘some’, to indicate that this is an interpolation into the 1644 Latin text, drawn from the 1647 French version: AT 9B:76. The whole definition is also italicised in the original.

²⁰ Descartes 1991, p. 95/AT 8A:91/CSM 1:253 (pt. 3, §29). Again, the words ‘true and’ and ‘in relation to the Earth’ are bracketed in this edition, indicating that they are drawn from the 1647 French text: AT 9B:114–115

²¹ Descartes 1991, pp. 52–53/AT 8A:55/CSM 1:234–235 (pt. 2, §28).

2 The Immobility of the Parts of Space

In More's opinion, corporeal motion could only be adequately defined in relation to an utterly fixed frame of reference. It was clearly going to need to be defined in relation to *something*: but, as far as More was concerned, this could not be anything corporeal, precisely because nothing was fixed in the corporeal world. It was not enough to 'consider' certain bodies as stationary (as Descartes' definition of motion had suggested), in order to define a motion for another body, because in many cases they would not *be* stationary, and everything would be thrown into confusion. The incorporeal frame of reference in relation to which corporeal motion was going to be defined would, for More, be provided by space; and this space would itself need to be completely immobile. It would not merely be immobile in the sense that it could not move as a whole—which was rather trivial since, being infinite, there was no place outside it into which it might move—but additionally in the sense that its parts could not possibly alter their positions in relation to one another, in the way that bodies could. This immobility of the parts of space was by no means a new opinion for More. Even as early as 1651, back when he was still declaring space to be a non-entity, he was already perfectly content to declare that 'space is immovable, and impassible. All the porters in London will not be able to carry one foot square of it from Cheepsyde to Charing Crosse.'²² But it was only in his later works, the *Divine Dialogues* and *Enchiridion metaphysicum*, that More saw fit to bolster this intuition with rigorous arguments.

In the *Divine Dialogues*, More presented a couple of thought-experiments, to persuade the reader that a theory of corporeal motion based on relations between bodies alone could not suffice. One involved an arrow, shot up into the air at the equator.²³ With respect to the Earth, the arrow went straight up and straight down again; but, given the rotation of the Earth, the line that this arrow was *really* describing had to be curved. Therefore, there had to be some *other* frame of reference in relation to which its real motion could be defined, one that was not based on the corporeal extension of the Earth. This would be the incorporeal extension of space itself, with respect to which the Earth was also really moving.

Whatever one thinks of that argument, More's second thought-experiment is more intriguing and arguably more powerful. Imagine a solid cylinder, rotating on its axis. More felt that such a scenario will be distinct from one in which the cylinder is at rest; i.e. that there is a real fact of the matter about whether the cylinder is rotating or not. To illustrate the distinction, he suggested that we imagine the cylinder to be transparent, but with a red line marked diagonally inside it to link the centre of one end with a point on the opposite circumference. We will then be able to distinguish visually between the two cases. In one, we will simply see a stationary line; in the

²² *Conway Letters*, p. 488 (More to Conway, 5 May 1651).

²³ *Divine Dialogues*, pp. 52–53 (dial. 1, §26). See also *Enchiridion metaphysicum* vol. 1, p. 43 (ch. 6, §9).

other, the rapid rotation of this line will generate the appearance of a cone. But what More felt was that the Cartesians had not given themselves the conceptual apparatus necessary to distinguish between the two cases.²⁴

Descartes, as we have already observed, had defined motion in terms of the transfer of a body away from the vicinity of certain other immediately contiguous bodies. But, regardless of whether the cylinder as a whole might be moving or at rest in relation to its surroundings, the line within it will certainly not be moving in relation to the matter that is immediately surrounding *it*, for it is simply being carried along with that. All of the cylinder's internal parts, we are assuming, are at rest with respect to one another. So, to that extent, the line will turn out to be at rest *tout court*, according to the Cartesian definition. (It would, indeed, have a status much like that of the planet Earth within its whirling vortex, which Descartes was proud to declare to be at rest—thereby softening his Copernicanism, with an eye on Catholic dogma—on the basis that it was remaining surrounded by near enough the same immediately contiguous aethereal matter over time).²⁵ But to declare the line to be at rest, and just leave it at that, will be to fly in the face of experience. For we can tell with our own eyes that there is a genuine difference between the case where the line is simply appearing as a line, and the case where it is visibly describing a cone. As More wrote: 'the red Line does not pass through the parts of the Glass, but is carried along with them, and therefore cannot describe the *Conicum* in it. But there is a *Conicum* described even to your very *Sense*. In what *Extensum* therefore is it described?'²⁶ His own answer was that the motion of the line needed to be defined in relation to an underlying incorporeal space: when the cylinder rotated, each part of it really would be moving from one part of this space to another. But, he contended, Descartes' definition of motion, drawn up as it was in terms of a body's relations to its immediate surroundings, would force Descartes to say that there was no difference here at all. Regardless of whether the cylinder was rotating or not, the line would equally qualify as resting.

Isaac Newton would later be making much the same point, in the course of the detailed critique he made of Descartes' treatment of extension, place and motion in his unfinished paper, *De gravitatione et aequipondio fluidorum*, commonly known simply as *De gravitatione*:

from these very same principles it would follow that the internal particles of hard bodies, while they are not transferred from the vicinity of immediately contiguous particles, do not have motion in the strict sense, but move only by participating in the motion of the external particles. It rather appears that the interior parts of the external particles do not move with

²⁴ The argument was first presented in the *Divine Dialogues*, pp. 52–53, 57–61 (dial. 1, §§26, 28), and then at greater length in *Enchiridion metaphysicum* (presented in ch. 6, §§6–8, and defended against Cartesian objections throughout ch. 7). In the *Enchiridion metaphysicum* discussion, the diagonal line which generated the apparent cone becomes a line parallel to the axis of the cylinder, half way along its radius, which will generate the appearance of a smaller cylinder within the larger one. This and other related arguments are briefly examined in Koyré 1957, pp. 142–145.

²⁵ Descartes 1991, pp. 94–96/AT 8A:89–92/CSM 1:252–254 (pt. 3, §§26–30).

²⁶ *Divine Dialogues*, p. 59 (dial. 1, §28).

a proper motion because they are not transferred from the vicinity of the internal parts, and I submit that only the external surface of each body moves with a proper motion and that the whole internal substance, that is the whole body, moves through participation in the motion of the external surface.²⁷

We do need to be a little bit careful here. Strictly speaking, the external surface of our rotating cylinder will *not* be moving in the Cartesian sense. We are supposing that, whatever the cylinder is doing, it is keeping its activity self-contained, merely rotating in one spot rather than, say, rolling from one side of the room to the other. So, with respect to the *whole* of its surface, the cylinder will not be getting transferred away from the vicinity of the immediately contiguous matter, and into the vicinity of some other matter; which was, however, Descartes' definition of motion. As a whole, it is retaining the same place over time—irrespective of whether we are considering internal or external place—for its size, shape and situation are not changing. Still, though, we might at least allow that each individual particle on the surface does have a true motion of its own. At one moment, it will be in immediate contact (albeit only on one side) with a part of the surrounding air above the cylinder; at a later moment, it will be in immediate contact with the *different* part of the air below it; and successively in contact with each distinct part between these. But that, it seems, is the only Cartesian motion involved in the case. And perhaps we could appeal to that, to define *what we mean* when we ascribe motion to the whole cylinder and to each of its internal parts, 'through participation' as Newton put it. But a mere conceptual definition, or an explication of our natural ways of speaking, is not the same as a *physical* explanation of a perceivably real phenomenon. These individual motions in the superficial particles, however true they might be as motions under Descartes' definition, properly belong to them along, and it is not clear how *they* can help to explain the appearance of the cone that arises when the cylinder rotates. The particles that make up the red line itself, notwithstanding what some other particles might be doing somewhere else, are *not* getting transferred away from their own immediate surroundings.

But then, perhaps we are not entitled to this assumption of static homogeneity within the matter of the cylinder. After all, if the line is coloured, while the rest of the cylinder is transparent, then Descartes would certainly want to maintain that there is some real difference in physical constitution here, to explain that perceivable difference; and that physical difference would undoubtedly make some reference to individual motions in the microscopic particles that make up the matter of the red line. So perhaps the internal parts of the cylinder could not be quite as uniformly at rest as More was supposing. However, this still does not help. Whatever microscopic motions might be needed, to explain the colour of the line, those motions would remain equally present regardless of whether the cylinder was rotating or at rest. The line would be just as red either way. So, even though we might need to introduce corpuscular motions in order to explain the visible *redness* of the line, that is not the issue here. What we need to explain is not the colour of the line, but rather the *conical*

²⁷ Newton 2004, p. 16/Newton 1962, p. 126 (*De gravitatione*).

figure that the line describes when the cylinder rotates. But, for as long as we are still insisting on treating motion as a transference away from the *immediately contiguous* particles, there is no obvious way that merely turning the cylinder could generate any additional corpuscular motions in the particles of the line, besides those that have already been invoked to explain its colour.

Of course, if we were instead to use more distant bodies to define our frame of reference, then it would be perfectly straightforward to define new motions for the individual particles of the line, ones that arise only in the case when the cylinder is rotated. Perhaps these particles can be said to move on the grounds that their distance to the fixed stars, or simply to the observer, is changing over time. Such a manoeuvre would not have gone down well with the Cartesians: the reference to the immediately contiguous bodies really was a crucial part of Descartes' position. But it would at least enable a non-Cartesian critic to retain a reference to *some* corporeal objects when defining the motions of others, and hence potentially provide a way of sidestepping More's ultimate conclusion, that true motion was going to need to be defined in relation to an incorporeal, spatial extension. And More did consider this response: but he had little sympathy for it.

He felt, first of all, that it was absurd to define a body's place and motion in relation to things that it was never going to reach.²⁸ He regarded it as a self-evident axiom that '[e]very body that is moved locally, is moved adequately through those places in which it acquires its motion'.²⁹ But then, more seriously, More pointed out that changes in the spatial relations between the parts of the cylinder and distant objects, were *caused by* the motion of those parts, and therefore could not be what determined that motion. Considering a portion of the red diagonal line in the transparent cylinder, as this portion became gradually more or less distant from some external body, More observed that the changes in these distances 'do not constitute the motion of the red part, but the very motion of the red part effects them. Its motion therefore is prior by nature to those relations. In what way, therefore, can its nature be due to those of whom it is even the cause and not vice-versa?'³⁰

Taking stock: if More's 'cylinder' argument is successful, then what does it actually show? It shows that the Cartesian account of motion, based exclusively on relations among bodies, is inadequate. Here we have an example of a motion that must be regarded as real, on the grounds that it is bringing about real physical phenomena. The visual appearance of a cone signals to us that there must be some real difference, with respect to motion in the particles of the line, between the case where the cylinder is rotating and the case where it is not. But the Cartesians simply did not have the apparatus to define any such motion, insistent as they were on framing everything in terms of a body's relations to its immediate surroundings. And it does not look as if these particles' relations to more distant bodies are going to help either. More concluded that the mistake had been to seek to define a body's motion

²⁸ *Enchiridion metaphysicum*, vol. 1, p. 48 (ch. 7, §7).

²⁹ *Enchiridion metaphysicum*, vol. 1, p. 41 (ch. 6, §6).

³⁰ *Enchiridion metaphysicum*, vol. 1, p. 49 (ch. 7, §7).

in terms of relations between bodies at all. Rather, the relation that counted here was between a body and a part of space; and this space was going to need to be not only real but also extremely unlike bodies. Among the axioms that More laid down to introduce his analysis of motion, besides the one about how every moving body was moved through those places in which it acquired its motion, another one was: ‘There can be no local motion of any body except by traversing a certain extension.’³¹ The appearance of the red cone within the rotating cylinder was sufficient to demonstrate that the particles of the inscribed line were undergoing some kind of local motion, one that they had not been undergoing when it had been at rest. But these particles were not traversing the corporeal extension of the cylinder itself, for they were getting carried along with that. Therefore there needed to be another kind of extension for them to traverse. Moreover, in order for them to be in a position to traverse it, this second extension needed to be present within the same dimensions as the corporeal extension of the cylinder itself, for that was where the line was moving. Given that More had defined body in terms of impenetrable extension, such that no two *bodies* could exist in the same place at the same time, this necessary co-presence meant that this second kind of extension needed to be penetrable. And it also needed to be immobile, in order to establish a fixed frame of reference for defining the real motion of the line. It could not, for instance, be allowed to rotate along with it. It was only by referring motions to an underlying structure that was itself immobile, that real motions could be distinguished (conceptually, even if not always empirically) from merely relative or apparent ones.

But More was not done yet. He also objected to the way in which Descartes’ theory had made all motions reciprocal. Strictly speaking, if two bodies were to separate, it would be no more true (according to Descartes) to say that one was moving away from the other than to say the opposite. All that Descartes had to work with, after all, were relations between bodies, and the changes in these relations over time. But the initial separation of two bodies, or indeed a subsequent increase in the distance between them, was just *one* relational change, belonging to both of them equally. And Descartes freely admitted this: ‘For the transference is reciprocal; and we cannot conceive of the body AB being transported from the vicinity of the body CD without also understanding that the body CD is transported from the vicinity of the body AB, and that exactly the same force and action is required for the one transference as for the other.’³² Descartes also acknowledged in the same place that this did rather jar with our ordinary way of speaking. More, for his part, felt that it was not merely counterintuitive but was positively absurd. It would mean, for instance, that ‘a tower would be equally moved as the gusts of the winds which pass it gently by’.³³ As far as More was concerned, although the fact *that* a body is moving can be adequately defined in terms of the changes in its relations to the immobile parts of space, a physical explanation of *why* it is moving will need to refer to the

³¹ *Enchiridion metaphysicum*, vol. 1, p. 41 (ch. 6, §6).

³² Descartes 1991, p. 53/AT 8A:55–56/CSM 1:235 (pt. 2, §29).

³³ *Enchiridion metaphysicum*, vol. 1, p. 47 (ch. 7, §4).

application of a motive force. But in what sense is the *same* force acting upon both the wind and the tower? An explanation of the movement of the quantity of wind that is actually in contact with the tower will presumably refer to the fact that it is being propelled forwards by the impulse of other air pressing on it from behind. But that latter quantity of air is not pressing on the tower at all, and the Cartesians themselves stressed that there could be no physical action at a distance. Besides which, even if that gentle breeze were able to muster a force sufficient to shift something as bulky as the tower—which is already pretty implausible—the point to appreciate is that this force would be operating in *the wrong direction*. The wind is pressing forwards and yet—from the wind’s point of view—the tower is receding backwards. Short of identifying some other force to shift the tower, surely the right thing to say is that it is the wind that is *really* moving, while the backwards motion of the tower is *merely* a relative motion. More was happy to acknowledge that ‘the description of the change of site of bodies placed close besides each other... is always reciprocal’, but he insisted that actual *motion* needed to be distinguished from this mere description of the effects of motion, and that it was not likewise reciprocal. If it was, then one would only need to suppose that the wind on the other side of the tower was moving in the opposite direction from the wind on this side, and it would absurdly turn out that the same tower was moving both forwards and backwards at once.³⁴

Descartes was certainly conscious of the possibility of cases like this, and he explained that this was the very reason why we find it so natural to regard certain bodies (like the tower, in More’s example) as stationary, while attributing the reciprocal motions wholly to the other bodies involved in the case (like those gusts of wind). Descartes’ own example referred to the multiplicity of reciprocal motions between the whole Earth and the objects on its surface. If one object on the Earth was moving Eastwards, then the Earth would need to be moving reciprocally Westwards. If a different object was simultaneously moving Westwards, then the Earth would need to be moving reciprocally Eastwards. On the grounds that the two statements, that the Earth is moving Westwards and that it is moving Eastwards, ‘contradict each other’ (as in the Latin version of the *Principles*), or because there is merely ‘too much confusion in this’ (as in the French version), Descartes opted to adopt the ‘customary manner of speaking’ and to say that the Earth was stationary while these bodies alone moved across its surface. But, speaking more strictly, his philosophical position was indeed ‘that all the real and positive properties which are in moving bodies, and by virtue of which we say that they move, are also found in those contiguous to them, even though we consider the second group to be at rest.’³⁵ More, of course, knew the *Principles* from the Latin edition, and his attitude was that this position was not merely confusing but was indeed contradictory.

Once one admits real forces into one’s ontology, and holds that every genuine change of place must be caused by an application of such a force, then one is

³⁴ *Enchiridion metaphysicum*, vol. 1, pp. 47–48 (ch. 7, §5).

³⁵ Descartes 1991, p. 54/AT 8A:57/9B:79/CSM 1:236 (pt. 2, §30).

immediately led into the need for a definable distinction between real motions and merely relative ones. And More was extremely keen on forces. It was a fundamental and all-pervading principle of his mature philosophy that body was entirely passive, and that all corporeal motions (or changes of any other kind) would need to make some reference to spiritual influences. These vital principles were so necessary for real motion that More felt that we might as well just go ahead and equate the two things. As Philotheus told Hylobares in the *Divine Dialogues*, ‘you seem mistaken in what I mean by Motion. For I mean not simply the *Translation*, but the *vis agitans* that pervades the whole Body that is moved.’³⁶ This was yet another difference between More and Descartes. Descartes had contemplated offering a definition of motion in terms of ‘the action by which some body travels from one place to another’, but he had rejected this in favour of defining it simply in terms of that transference itself.³⁷ For More, the *vis agitans* was not the transference itself, but rather the thing that *caused* this transference. When this force acted on a body, that body’s spatial relations with others would be altered as a result. If one was to opt to regard the original body as fixed, then those other bodies would turn out to be moving in relation to it. But that would not be a *real* motion, because no active force would be getting applied to them. The real motion was to be found where the force was, and all other motions would be *merely* relative. If motion is defined exclusively in terms of alterations in the spatial relations between bodies, then all motions will be on a par. Therefore, if not all motions are on a par, because only some of them qualify as real, then relations between bodies will not be sufficient to define them. A fixed and incorporeal space will also be necessary, in order to differentiate between those transfereces that are getting caused by genuine applications of forces and those that are not.

All in all, More felt that the Cartesian identification between body and extension could not stand, because it entailed that it was impossible for there to be more than one extension in any given place. But there *needed* to be an immobile extension that could penetratively coincide with the movable extensions of bodies, for otherwise there would be no adequate way of distinguishing between real and merely apparent motions, in which case no coherent theory of motion could be established at all. Any workable theory of motion required a frame of reference that was both penetrable and fixed, and thereby doubly unlike corporeal extension. Descartes’ attempt at identifying the place of a body with its situation among other bodies had failed precisely because changes in that situation would only *sometimes* be associated with real changes in the body’s own place. In other cases, they would result from changes in the places of the surrounding bodies alone. Places can never enjoy the stability that More felt they required, if they are being defined in relation to moving things. So More identified a body’s place with the particular region of space in which it inhered,

³⁶ *Divine Dialogues*, p. 50 (dial. 1, §25). See also *Enchiridion metaphysicum*, vol. 1, p. 54 (ch. 8, §§1–2).

³⁷ Descartes 1991, pp. 50–51/AT 8A:53–54/CSM 1:233 (pt. 2, §§24–25). That suggested ‘action by which...’ definition in §24, just like the more philosophical definition that Descartes settled on in §25, is italicised in the original.

and he insisted that the various regions of this infinite, penetrable and incorporeal space could not be allowed move around in relation to one another. A body was really at rest for as long as it continued to coincide with the same region of space. If it successively came to occupy different regions, then it was really moving.

And a direct corollary of this immobility of the parts of space was their indiscernibility. That term ‘indiscernibility’, after all, meant precisely the impossibility that two parts, formerly adjacent, could be actually separated, i.e. move apart. And thus, by being indiscernible as well as penetrable, space met both of the conditions of More’s definition of immateriality. More wrote, ‘if it were supposed that parts were discerned, they would be *ipso facto* moved in the same place and, so, the place in which they are moved would be more internal and deeper than that which we have hitherto needed.’³⁸ But, given that the very reason why this second, underlying layer of (immobile, penetrable, spatial) extension had being introduced in the first place was to allow for real motions to be defined within the first layer of (mobile, impenetrable, corporeal) extension, and given that the underlying layer needed to be immobile in order for this to be possible at all, there was simply no need to postulate any still more fundamental third layer. If the parts of space itself were all immobile, eternally fixed in their positions relative to one another, then those relations *could* be used to define the place—and perhaps even the very identity—of any given part of space. As Newton would more famously put it in the *Principia*: ‘Let the parts of space move from their places, and they will move (so to speak) from themselves. For times and spaces are, as it were, the places of themselves and all things.’³⁹ Or, as he added in *De gravitatione*: ‘The parts of duration and space are understood to be the same as they really are only because of their mutual order and position; nor do they have any principle of individuation apart from that order and position, which consequently cannot be altered.’⁴⁰

3 What Space Could Not Be

In the *Divine Dialogues* (dial. 1, §§26–28) and *Enchiridion metaphysicum* (chs. 6–8), More examined several different conceptions of the nature of space, each of which sought to downplay its reality in one way or another, and he set about refuting each and every one. We have already looked at the first two of these: but there were many more besides those.

- (i) *Space is not a relative ordering among bodies.*

This is, in effect, the position we just examined in the last section, whereby the place of a body could only be defined in relation to other bodies (such as

³⁸ *Enchiridion metaphysicum*, vol. 1, p. 60 (ch. 8, §14).

³⁹ Newton 2004, p. 66/Newton 1999, p. 410 (Scholium to Definitions). Clarke followed Newton closely on this point: see Clarke and Leibniz 1956, p. 22 (Clarke’s second reply, §4); and Clarke 1998, p. 13 (*Demonstration*, §3); p. 152 (*Second Defense*).

⁴⁰ Newton 2004, p. 25/Newton 1962, p. 136 (*De gravitatione*). For discussion of this point, see Nerlich 2005.

the immediately contiguous ones). As we just saw, More was not happy with the reciprocity of motion that this would entail. He felt that it was important to establish a robust distinction between a real motion (i.e. a change in spatial relations that was getting caused by the application of a real active force to the body to which the motion was being ascribed) and a merely relative motion (i.e. a change that was getting caused by the application of such a force to something *other* than the body in question). He concluded that the only way to establish such a distinction was by reference to a space that was considerably more immutable than relational structures among bodies could ever be.

(ii) *Space is not the potentiality of body.*

This is the position we examined in the last chapter. Although More was at least somewhat drawn to this particular conception of space in the earlier portion of his career, he firmly ruled it out (by means of a quasi-Aristotelian argument) in *Divine Dialogues* and *Enchiridion metaphysicum*, and opted to refer that potentiality to the abyss of physical monads instead.

(iii) *Space is not merely an object of the imagination.*

Another way in which More sought to emphasise the reality of space was to point out that it was not merely independent of the bodies that were located in it, but that it was independent of our own minds too. In the *Divine Dialogues*, the character of Cuphophon brought a familiar Medieval expression into the discussion. He suggested that, although an incorporeal extension might be admitted on some level, it should not be admitted as anything real, but purely as an ‘imaginary space’. In response to the example of the arrow, which appeared to follow a straight line up and down but which really described a curve, Cuphophon remarked: ‘it may be seasonably suggested, that it is *real Extension* and *Matter* that are terms convertible; but that Extension wherein the Arrow-head describes a curvilinear Line is only *imaginary*.’⁴¹ On the face of it, that expression, ‘imaginary space’, does sound like it is turning space into a merely theoretical entity and, although several philosophers (such as Gassendi) had found alternative ways of interpreting it which did not undermine the independent reality of space, there were others (such as Hobbes) who were perfectly content to treat it as a phantasm. But Hylobares was quick to dismiss this suggestion: ‘But it is so imaginary, that it cannot possibly be dis-imagined by humane understanding. Which methinks should be no small earnest that there is more than an imaginary Being there.’⁴²

More’s opinion was that, whenever we conceive a body, we will also—whether we realise it or not—be conceiving that co-extensive portion of real space that constitutes its place. The converse, however, does not hold. Leaving aside the question of whether the place will or will not contain a body as a matter of fact,

⁴¹ *Divine Dialogues*, pp. 53–54 (dial 1, §27).

⁴² *Divine Dialogues*, p. 54 (dial. 1, §27); see also pp. 59, 61 (§28).

we can at least conceive of it as void.⁴³ Even though More believed that the *natural* world was a plenum, he had always felt that vacua were nevertheless perfectly possible and implied no contradiction. But, if we can conceive the absence of body, and yet cannot do the same for space, the latter would actually seem to have a greater claim to reality than the former. The conceivability of the non-existence of bodies is what satisfies us of their contingency; but, if the non-existence of space is inconceivable, then it is hard to see how its existence could be regarded as anything other than necessary. As More put it in *Enchiridion metaphysicum*: ‘Indeed, we cannot not conceive a certain immobile extension pervading everything to have existed from eternity, and which will exist to eternity (whether we think of it or not) and really distinct, finally, from mobile matter. Therefore, it is necessary that some real subject be under this extension, since it is a real attribute.’⁴⁴

(iv) *Space is not an inadequate conception of body.*

The Hobbesian phantasm of space was supposed to be achieved by mentally stripping away the specific accidents from an idea of a body, to leave only the bare notion of its immovable place. Maybe the actual object of our thought, when we contemplate the nature of space, is really a body: but the reason why it does not appear to possess the same features as the body is because we are conceiving it inadequately. Although body is endowed with mobility, discernibility and impenetrability, those elements might simply drop out of our conception thereof, thereby explaining why space should appear to be immobile, indiscernible and penetrable. But More felt that an inadequate conception of something, although it might omit certain features, would not add directly contradictory ones.⁴⁵ He regarded immobility, indiscernibility and penetrability as positive *perfections*. These were the sorts of features that God possessed—which was no coincidence, as we will be seeing later. If anything, it was mobility, discernibility and impenetrability that were the negations of these perfections. These features revealed space to be the very opposite of body, rather than merely a stripped-down body.

(v) *Space is not body considered generically.*

In a somewhat similar manner, More argued against Descartes’ conception of internal place (and, with it, his broader conception of space). As we already observed, Descartes had maintained that the internal place of a body was indeed its own extension, but that it was this extension insofar as it was regarded not as particular but as generic. It was defined solely in terms of size, shape and situation, which opened up the possibility that a body might move out of its place, with a congruent but numerically different body moving into it. The

⁴³ See *Enchiridion metaphysicum*, vol. 1, pp. 122–123 (ch. 28, §8). Already in one of the options enumerated in that passage we were considering in the last chapter, from the Appendix to *An Antidote Against Atheism*, More had referred to ‘this infinite Amplitude and Mensurability, which we cannot disimagine in our Phancy, but will necessarily be’ (p. 199: Appendix, ch. 7, §1).

⁴⁴ *Enchiridion metaphysicum*, vol. 1, p. 57 (ch. 8, §6).

⁴⁵ *Enchiridion metaphysicum*, vol. 1, pp. 50–51 (ch. 7, §11).

second body, in virtue of the fact that it possessed the same size and shape as the first, and had come to enter into the same spatial relations with the surrounding bodies, would thereby stand as a distinct particular instance of the same generic type, and that was all that it meant to say that it had occupied the other one's internal place. But More was not convinced. Hylobares complained in the *Divine Dialogues*: 'how can that which is *immoveable*, O *Sophon*, be the *Genus* of those things that are *moveable*?'⁴⁶ If a place was a genus, surely it would be defined by those properties that *all* of its various instances had in common. But this place turned out to possess certain features that *none* of its alleged instances had. Besides size, shape and situation, it was additionally characterised by things like immobility, indiscernibility and penetrability. And so, again, it would turn out to be not merely *different* in nature to the bodies themselves, but *opposite* in nature. Bodies and places might have shared one another's dimensions, but that was about all that they did share. Overall, they were much too dissimilar in their essential natures to be linked by this relation of genus to individual.

(vi) *Space is not a privation.*

Suppose that there is an empty space. There is a natural line of thought that would lead us to feel that this void cannot really be ascribed any existence in its own right, on the grounds that there is nothing there. Although the claim that there *is* an empty space is perfectly intelligible, perhaps what we really mean by it is simply that there is *not* a body there. The empty place would then seem to subsist merely as a privation; that is, as the *absence* of something that could be there but, as it happens, is not. This very naturally ties in with the notion of empty space as the potentiality of the bodies that could be placed within it, a notion that More already tackled elsewhere. But he also had an additional argument against this conception of space as a privation.

A privation, as More pointed out, is the sort of thing that will vanish when what it lacks is supplied. When a place is full, its emptiness no longer exists; when a body is there, we can no longer say that the place is void. Imagining an initially empty room that comes to be filled with air, More wrote that there was a contradiction in supposing that 'the room is both filled with air and yet there is in it a mere void'.⁴⁷ But, as More pointed out, the same thing cannot be said about space itself. The place *is* still there, even after it has been filled. If the place as such did not remain throughout this process of filling, then in what sense could we say that *it* had been filled? It is only by supposing a single, enduring place, both before and after the filling, that we can associate the body that is there afterwards with the void that was there beforehand. The body and the void both need to be *there*, in the same place, for this body to qualify as having supplied *this* lack. Although the emptiness of an empty place might

⁴⁶ *Divine Dialogues*, p. 60 (dial. 1, §28). See also *Enchiridion metaphysicum*, vol. 1, pp. 49–50 (ch. 7, §§8–10).

⁴⁷ *Enchiridion metaphysicum*, vol. 1, p. 65 (ch. 8, §13, scholium).

indeed be regarded as a privation, the place whose emptiness this is cannot be. We noted earlier that Gassendi's space differed from the void of the classical atomists in that, whereas their void only existed in the gaps between atoms, his space was continuous and unbroken, intimately permeating the dimensions of anything that existed penetratively in it. In this regard, More's space was just the same as Gassendi's.

All in all, then, this space was not the privation of body. It was not body considered generically, or inadequately, and it was not a mere figment of the imagination either. It could not be reduced to the relations that bodies bore to one another; and, far from a being pure potentiality, space was in fact 'pure act'.⁴⁸ Indeed, it was not merely real: it was positively divine. Just a few paragraphs back, we saw More's contention that there needed to be a 'real subject' under this extension, given that it was 'a real attribute'. When More pondered the nature of space, and wondered what its real subject might be, he noticed that, as a matter of fact, space had rather a lot in common with God. It was all-pervading, incorporeal, immutable and eternal, and much more besides. Ultimately, More counted out 'not less than twenty titles by which the divine numen should be designated, which most aptly suit this infinite internal place which we have demonstrated to be in the world.'⁴⁹ He concluded that space should be understood as the amplitude of the divine substance. That, however, is a discussion that must be postponed until we have first made a proper examination of More's broader views on spiritual presence, which we will do in the next chapter.

4 The Reception of More's Theories of Space

During the period of More's research and afterwards, the differences of opinion surrounding the nature of space were as stark as they ever have been on virtually any philosophical issue. The following passage from Edmund Law's *Enquiry into the Ideas of Space, Time, Immensity and Eternity* sums up the situation as Law found it in 1734:

In the first Place, with regard to the Idea of Space, 'tis confes'd that Men have some kind of Notions of it, otherwise there would never have been so many tedious Disputes about it: But then again these notions have been so various and inconsistent, so roving and indeterminate, that from the very first Dawn of Philosophy to the present Time scarce two Authors of Note have entertain'd precisely the same Opinion concerning it. Some have been induced to think it a Substance, others a Property, others some middle thing between Substance and Property. It has been term'd a Mode of Existence, a Relation, a mere Possibility, Ponibility, &c. Some again have supposed it to be eternal, independent, infinite; others created, dependent, finite. Some have made it the very Substance of the Deity, others one of his Attributes; others an Attribute both of the divine Substance and Attributes; and others have gone so far as to conceive of it as of some Organ of the Deity, or as it were his *Sensorium*. Some make it the

⁴⁸ *Enchiridion metaphysicum*, vol. 1, pp. 57, 60 (ch. 8, §§8, 12).

⁴⁹ *Enchiridion metaphysicum*, vol. 1, p. 57 (ch. 8, §8).

same with solid Matter; some suppose it to arise from the Absence of Matter, or to be mere Vacuity. Lastly, some imagine it to comprehend the Essences, and to be necessary to the Existence of all things whatsoever, and others contend that it is absolutely nothing.⁵⁰

As Law's survey clearly demonstrates, the spread of opinions on the issue of space was truly staggering in its breadth and diversity. Some of these theories can be specifically associated with certain particular authors. For instance, the idea that space was 'some middle thing between Substance and Property' probably alludes most directly to Gassendi and his followers (although it could equally relate to his sixteenth-century forebears such as Patrizi). Even more blatantly, that notorious phrase, 'as it were his *Sensorium*', is a direct allusion to Newton; while the term 'Ponibility' is specifically associated with Isaac Barrow—whom we will be meeting shortly. As for the other ideas surveyed in this passage, we have already seen several of them expressed, not least by More himself at one time or another during his long career. In the period that followed More's work, the whole range of them would continue to be developed, with no one position enjoying any particular dominance over the others.

Thus, among those who opted for a purely relational conception of space, we might mention Leibniz. Leibniz's position differed from Descartes' in that he did not regard the notion of a vacuum as involving a contradiction. Much like More himself, although Leibniz was absolutely satisfied that there would be no such thing in the natural world, he was at least prepared to allow that a vacuum was a thing possible in itself. Leibniz accepted that God, in his omnipotence, could produce a vacuum if he so chose: he merely felt that this was something that God, in his wisdom and fecundity, would never choose to do. Consequently, for Leibniz to establish an adequate relational conception of space, he could not define it exclusively in terms of the relations between actual bodies. Such an approach might work for a plenum like the actual world, but Leibniz wanted a completely general theory of space, one that could even be applied to a possible world that did in fact contain a void. Accordingly, Leibniz decided that, although space was indeed an ordering, it was properly to be understood as 'an order, not only among existents, but also among possibles as though they existed'.⁵¹ However, even despite that concession, Leibniz's theory of space was still very far indeed from More's mature view. Even if this relative ordering was an ordering among both actual and possible things, so that it might be regarded as being in some sense prior to the actual things themselves, it was still very much less real and absolute than More felt space ought to be. Indeed, when Leibniz elucidated his conception of space further, and described precisely how it might be regarded as prior to its contents, this lack of reality was confirmed. Space, as Leibniz wrote to Samuel Clarke, 'is nothing else, but that order or relation; and is nothing at all without bodies, but the possibility of placing them'.⁵² Space was thus prior to bodies only as a *potentiality*, not as anything actual. This might have fallen near enough in line with some of More's earlier opinions: but, as we saw, it was a

⁵⁰ Law 1734, p. 3 (ch. 1).

⁵¹ Leibniz 1996, p. 149 (bk. 2, ch. 13, §17).

⁵² Clarke and Leibniz 1956, p. 26 (Leibniz's third paper, §5).

theory that More was at pains to refute in his later works. When one adds that, for Leibniz, extension was merely a phenomenon anyway (albeit a well-founded one), the reality of space turns out to be even further undermined.

Now, although Leibniz knew More's works and referred to them on several occasions, his interest was principally in More's 'Hylarchic Principle' (i.e. the Spirit of Nature). He did not like even that theory: but, in the case of More's theory of space, Leibniz never really bothered to discuss it at all. Instead, he preferred to direct his criticisms of absolute space against Newton's version of the theory. The same is also true of Berkeley, another relativist (and phenomenalist). However, a number of other figures certainly did pay attention to More's own research in this area, and had considerably more sympathy for it.

Even if Leibniz was not keen, More did manage to find at least one German supporter: namely, Andreas Rüdiger (1673–1731). In 1716, Rüdiger's drew explicitly from More's *Enchiridion metaphysicum* (as well as also citing Gassendi) in the course of his own (admittedly somewhat brief) discussion of space in his work, *Physica divina*.⁵³ Meanwhile, over in America, Jonathan Edwards (1703–1758) was making similar moves in about 1721 or 1722. Although Edwards did not refer to More (or to anyone else) by name, it seems likely that More's works had a direct influence on his early theory of space, as expressed in the opening portion of his posthumously published paper, 'Of Being'. Edwards began by arguing that it was impossible that there should be absolutely nothing at all, and he added that it was 'a more palpable contradiction still to say that there must be being somewhere, and not elsewhere'.⁵⁴ His conclusion was that there had to be a necessary and eternal being that was infinite and omnipresent. But he continued that this being could not be solid, before finally announcing the identity of the being he had in mind: 'Space is this necessary, eternal, infinite and omnipresent being. We find that we can with ease conceive how all other beings should not be. We can remove them out of our minds, and place some other in the room of them; but space is the very thing that we can never remove and conceive of its not being.'⁵⁵ One is immediately put in mind of More's claim that, whereas we can imagine the absence of bodies from space, we cannot 'dis-imagine' the space itself—thereby revealing it to have a much more necessary existence than those bodies themselves, and a greater claim to reality than they had.⁵⁶

But, if there was one place where More's ideas went down especially well, it was in his own Cambridge. After More's death, his theory of real space would be taken up by, for instance, the Cambridge mathematician, Joseph Raphson (c. 1648–c. 1715).⁵⁷

⁵³ Rüdiger 1716, pp. 346–348 (bk. 1, ch. 8, sect. 4, §§16–22).

⁵⁴ Edwards 1980, p. 202 ('Of Being').

⁵⁵ Edwards 1980, p. 203 ('Of Being').

⁵⁶ Edwards, however, did not linger with this conception of real space for very long, and he eventually shifted to the view that space could only be understood relativistically after all. See Reid 2003b on Edwards's changing views on this issue.

⁵⁷ The fullest account of Raphson's work on real space is in Koyré 1957, ch. 8. See also Copenhaver 1980, pp. 529–540; Grant 1981, pp. 230–232.

Raphson's *De spatio reali* of 1697 drew on a wide variety of sources, as detailed in its first chapter, from the standard classical authorities, to the more esoteric Hermetic and Cabbalistical writings, to Newton, Locke and, 'bringing up the rear, the most celebrated man of all, most worthy of praise, Henry More'.⁵⁸ In the course of proving that space was real, rather than merely something imaginary, or potential, or generic, or whatever, Raphson lifted four full pages out of More's *Enchiridion metaphysicum*. He did not even bother to attempt a paraphrase, but simply transcribed More's rotating cylinder discussion verbatim and reproduced his diagrams.⁵⁹ In Raphson's opinion, space did indeed need to be understood as something eminently real, for it was, he argued, absolutely indivisible, immobile, infinite, pure act, all-containing and all-penetrating, incorporeal, immutable, one in itself, eternal, incomprehensible and most perfect of its kind, and extended things could neither be nor be conceived without it. There was nothing here to which More would not have given his full endorsement; nothing, indeed, that he did not himself declare in so many words. Moreover, Raphson, as well as both Rüdiger and Edwards—at least the juvenile Edwards of 'Of Being'—also shared More's contention that this space was not only real but positively divine: on that, see Chap. 6 below. But, of course, by far the most famous proponent of such notions was another Cambridge mathematician, namely Sir Isaac Newton, with Samuel Clarke (himself a Cambridge alumnus) acting as his second.

More has regularly been awarded a central position in a progression of theories that eventually culminated in Newton's theory of absolute space. Other commentators, however, have felt that the influence of More on Newton, although not non-existent, does risk being overstated, and they have been inclined to look elsewhere to find the latter's principal sources.⁶⁰ The relations between More and Newton's respective theories of space are indeed rather more nuanced than has occasionally been suggested in some of the less cautious critical accounts. Nevertheless, there do seem to have been at least some connections between them, and these connections are worth exploring, given that Newton's theory of space would become the standard—or at least the seminal—account thereof for some considerable period of time thereafter. Newton did not merely gesture vaguely at some sort of space or other. It was important to his physics that this space should be *absolute*, in the sense that its various eternal and uncreated parts would be perfectly immobile and inseparable, so that they might serve as absolute places for the impenetrable bodies that were created within their

⁵⁸ Raphson 1697, p. 26 (ch. 1). Raphson later also cited both Gassendi and Guericke: op. cit., pp. 68–69 (ch. 4); 91 (ch. 6, §13).

⁵⁹ Raphson 1697, pp. 63–66 (ch. 4). The discussion spans four pages in the 1671 edition, at any rate: compare *Enchiridion metaphysicum* (1671 edition), pp. 46–50 (ch. 6, §§6–9: *Opera omnia*, vol. 2.1, pp. 159–160/*Enchiridion metaphysicum*, vol. 1, pp. 41–43).

⁶⁰ Koyré 1957 is the classic work in this area. Baker 1930; Burt 1932; Jammer 1969; Leclerc 1972, pt. 3; Grant 1981, especially ch. 8; Funkenstein 1986, ch. 2; Hall 1990b, ch. 10; Hall 1992; and Janiak 2008, ch. 5, are also very useful, as are several of J.E. McGuire's works. Also see Toulmin 1959.

own penetrable dimensions, and might thereby provide a framework whereby absolute motions might be defined for those bodies. It was not until the Einsteinian revolution that these twin notions of absolute space and absolute motion would finally come to be abandoned by the scientific community. What we can therefore say is that, to the extent that More influenced Newton, his *indirect* influence would thereby continue to make itself felt for a very long time to come thereafter, even after his own direct contributions to this debate had been forgotten. The question that faces us, then, is: how much *did* More influence Newton's theory of space?

The classic sources for Newton's theory of absolute space, amongst those published by Newton himself in his own lifetime, are the Scholium to the Definitions at the start of his *Principia* (1687), the General Scholium at the end of its 1713 second edition, and those intriguing Queries about the divine sensorium, which first appeared in the 1706 Latin edition of his *Optice*. In the first of these, Newton described absolute space as homogeneous, immovable, immutable and insensible. Its various parts, he claimed, would constitute the absolute places of different bodies; and absolute motion was to be understood as the transference of a body from one such absolute place to another.⁶¹ Between them, this and the other passages additionally make it clear that space was to be understood as infinite, eternal and continuous. But a much fuller treatment of these issues is to be found in some of Newton's posthumously published works, particularly *De gravitatione*, together with another, shorter paper 'On Place, Time, and God'.⁶²

In *De gravitatione*, following a long critique of Descartes' theory of place and motion somewhat similar to that in *Enchiridion metaphysicum* (though not quite close enough that we can definitely associate the two), Newton observed that the identification of body and extension was so fundamental to Cartesian physics that it was incumbent on him to examine those two notions and explain how, in his opinion, they actually differed from one another.⁶³ He anticipated that his reader might expect him to begin by deciding whether extension should be regarded as a substance or accident, but instead he began by declaring that it was neither. He wrote of extension:

it has its own manner of existing which is proper to it and which fits neither substances nor accidents. It is not substance: on the one hand, because it is not absolute in itself, but is as it were an emanative effect of God and an affection of every kind of being.... Moreover, since we can clearly conceive extension existing without any subject, as when we may imagine spaces outside the world or places empty of any body whatsoever, and we believe

⁶¹ Newton 2004, pp. 64–65/Newton 1999, pp. 408–410 (Scholium to Definitions).

⁶² Newton 2004, pp. 12–39/Newton 1962, pp. 89–156; McGuire 1978b. On the dating of *De gravitatione*, it was generally accepted since its first publication in Newton 1962 that it was written in the 1660s, probably around 1668. More recently, however, Betty Jo Teeter Dobbs has suggested a rather later date for it, of 1684 or the beginning of 1684/5 (Dobbs 1991, pp. 139–146). This date does now command more support from the scholarly community: I have no new evidence to offer in this regard, and am content to accept Dobbs's date. As for 'On Place, Time, and God', that seems to have been written around 1692 or 1693.

⁶³ Newton 2004, p. 21/Newton 1962, p. 131 (*De gravitatione*).

[extension] to exist wherever we imagine there are no bodies, and we cannot believe that it would perish with the body if God should annihilate a body, it follows that [extension] does not exist as an accident inhering in some subject. And hence it is not an accident.⁶⁴

There are a few things here that do sound like More. For a start, the notion of an ‘emanative effect’ was one that More had employed in *The Immortality of the Soul*. (Though, admittedly, More had used it not so much to explain the relation between God and space, but rather to explain the way in which the extension of a created spirit would emanate forth from its ‘centre’ as a necessary consequence merely of its essence and existence).⁶⁵ The idea that extension was an affection of every kind of being was also an opinion that More shared (although there are certain complexities here, to be explored in the next chapter below). Moreover, the point about how we can conceive extension without thinking of body, but not vice versa, is reminiscent of that argument from *Divine Dialogues* about the impossibility of ‘dis-imagining’ space. Later on in this same work, Newton again seems to echo More in a similar way: ‘Lastly, space is eternal in duration and immutable in nature because it is the emanative effect of an eternal and immutable being.... Next, although we can possibly imagine that there is nothing in space, yet we cannot think that space does not exist.’⁶⁶ In addition, his observation that ‘[i]f Descartes should now say that extension is not infinite but rather indefinite, he should be corrected by the grammarians’⁶⁷ recalls More’s dismissal of that distinction in the epistle to the reader of *Democritus Platonissans*.

Now, we know from Newton’s *Questiones* that he did read *The Immortality of the Soul* during his formative years. We also know that he possessed a copy of More’s *Philosophicall Poems*.⁶⁸ In addition, McGuire has suggested that Newton may have read More’s *Divine Dialogues* prior to composing *De gravitatione*, and he points to a few further similarities of expression and theory besides those just mentioned.⁶⁹ However, as McGuire also observes, the central thought in the above passage, that space was neither a substance nor an accident, was not Morean at all: it was Gassendist.⁷⁰

⁶⁴ Newton 2004, pp. 21–22/Newton 1962, p. 132 (*De gravitatione*). The brackets are the translators’, supplying a word omitted in Newton’s Latin.

⁶⁵ *The Immortality of the Soul*, pp. 18–19 (bk. 1, ch. 6, §§2–4).

⁶⁶ Newton 2004, p. 26/Newton 1962, p. 137 (*De gravitatione*).

⁶⁷ Newton 2004, p. 24/Newton 1962, p. 135 (*De gravitatione*).

⁶⁸ Harrison 1978, p. 196.

⁶⁹ McGuire 1978a, especially pp. 470–471. Also see McGuire 1966, p. 227 n. 74: but note that this early paper of McGuire’s does include a couple of mistakes relating to More (which I shall come to over the course of the next few notes). McGuire’s later articles are much more consistently reliable than this one from 1966.

⁷⁰ See McGuire 1978a, pp. 463–464, 471–474. In the earlier paper just mentioned, McGuire himself linked More to Gassendi and Charleton in this notion that ‘neither space nor time can be comprehended under the traditional categories of substance and attribute’ (McGuire 1966, p. 233). Such an association is rightly to be corrected.

As we already noted in passing in Chap. 2, there in the context of Newton's atomism, many of Newton's early ideas about the nature of physical reality, and its metaphysical foundation, did indeed come from Gassendi, particularly as channelled through Walter Charleton's *Physiologia Epicuro-Gassendo-Charltoniana*. In the case of Gassendi's (and Charleton's) notion that space was *sui generis*, and could somehow stand entirely outside the substance/accident classification of things,⁷¹ this was an opinion that More definitely did not share. As he wrote in *Enchiridion metaphysicum*, 'substance is in general a being subsisting by itself, accident indeed a mode of substance, as it cannot exist without a substance. Whence it is manifest that anything that is is either substance or a mode of substance.'⁷² More's colleague, Ralph Cudworth, not only agreed with More that this distinction was logically exhaustive in general, but he actually appealed to that fact specifically in order to refute Gassendi's theory of the *sui generis* status of space in particular.⁷³ Newton, however, sided with Gassendi against both of these more local authorities. Moreover, notwithstanding the resemblance between Newton's conception of space, as something that we could not expel from our minds even if we imagined the annihilation all bodies, and More's discussions in the *Divine Dialogues* and elsewhere, we *also* find a broadly similar idea in Gassendi: 'it appears to us that even if there were no bodies, there would still remain both an unchanging place and an evolving time.'⁷⁴ It was, after all, not all that remarkable an idea anyway. Although More and Newton might have dressed it up in epistemological terms, of how we could *conceive* (or, as More says, 'imagine') space without body but not vice versa, the claim did effectively boil down to the principle that space could *exist* without body but not vice versa. Notwithstanding dissent from the Cartesians and others, that was something that a great many people would have regarded as simply obvious. They would not have needed More, or Gassendi, or anyone else to point it out for them.

Besides all of this, another important difference between Newton's space and More's final conception thereof lay in the fact that the very theory that More so strongly rejected in his *Divine Dialogues* and *Enchiridion metaphysicum*, that space could be regarded as constituting the potentiality of body, was in a certain sense

⁷¹ Gassendi 1972, pp. 384–385 (*Syntagma*, pt. 2, sect. 1, bk. 2, ch. 1); Charleton 1654, pp. 66–67 (bk. 1, ch. 6, sect. 1, arts. 10–11).

⁷² *Enchiridion metaphysicum*, vol. 1, p. 11 (ch. 2, §12).

⁷³ Cudworth 1743, p. 769/Cudworth 1845, vol. 3, pp. 231–232.

⁷⁴ Gassendi 1972, p. 384; see also pp. 387–388 (*Syntagma*, pt. 2, sect. 1, bk. 2, ch. 1). On Gassendi's influence on *De gravitatione*, also see Westfall 1971, pp. 337–341, especially p. 339. A century later, Kant would also echo that point about the impossibility of dis-imagining space in his *Transcendental Aesthetic*: 'We can never represent to ourselves the absence of space, though we can quite well think it as empty of objects' (Kant 1965, p. 68: A24/B38). It should, however, be appreciated that this impossibility of dis-imagining space did lead Kant in a very different direction from that of More or any of these others. He regarded space not as a necessarily existing matrix to house external bodies, but rather as a pure a priori intuition that necessarily conditions our experience of sensible things. John Tull Baker has examined the similarities and the differences between More and Kant in this area, in Baker 1930, p. 10, and then more fully in Baker 1937.

embraced by Newton. In the course of his discussion of space in *De gravitatione*, Newton offered an hypothesis about how individual bodies might be made. Regarding impenetrability and mobility as the principal, defining attributes of bodies—and thereby siding with More and others against the Cartesians—he suggested that God could produce bodies by simply applying instances of this property of impenetrability directly to various regions of space, and then moving these particular impenetrabilities about from one part of space to another, in accordance with certain laws. Impenetrability will make these regions of space tangible to us and, by causing them to reflect light, will make them visible and coloured too. A universe created in this way will, at the very least, be indistinguishable from the one we inhabit, so it is not unreasonable to suppose that our universe might in fact be of this nature: ‘these beings will either be bodies, or very similar to bodies’.⁷⁵

Newton himself recognised that this conjecture did seem, in certain respects, to suggest a parallel between space and the Aristotelian theory of prime matter: ‘Between extension and its impressed form there is almost the same analogy that the Aristotelians posit between prime matter and substantial forms, namely when they say that the same matter is capable of assuming all forms, and borrows the denomination of numerical body from its form. For so I posit that any form may be transferred through any space, and everywhere denote the same body.’⁷⁶ Newton surely could not have borrowed this particular element of his theory from the *Divine Dialogues* and *Enchiridion metaphysicum*, where it was specifically singled out for a thorough refutation.⁷⁷ And yet he does not seem to have got the idea from Gassendi either. However, what is possible—though we can say no more than that—is that some of More’s earlier writings might have helped to inspire Newton in this regard. As we saw, although More did end up coming down very firmly against the notion that the potentiality of body could be understood in spatial terms, finally opting

⁷⁵ Newton 2004, pp. 27–29/Newton 1962, pp. 138–140; here p. 28/pp. 139–140 (*De gravitatione*). See McGuire 1982, and also Bennett and Remnant 1978.

⁷⁶ Newton 2004, p. 29/Newton 1962, p. 140 (*De gravitatione*).

⁷⁷ In the same early paper that I have already criticised (above, p. 126 nn. 69 and 70), McGuire suggested that, even it cannot be proven that Newton read More’s *Divine Dialogues*, ‘the leading doctrines expressed [therein] are closer in character to those of *De Gravitatione* than in any of More’s earlier treatises’. In particular, McGuire alluded to Cuphophron’s suggestion that extension is the capacity of matter, i.e. (as clarified by Bathynous) matter *in potentia* (*Divine Dialogues*, p. 56: dial. 1, §27). McGuire wrote: ‘The idea is not pursued; but in the context of the discussion, where it is repeatedly affirmed that matter is a dependent existent moved by God’s will, we surely have the germ of Newton’s hypothesis, namely, that space is the potentiality of matter made actual when determinate parts of space are made to manifest sensible appearances’; and he suggested that these speculations might therefore owe more to More’s *Divine Dialogues* than to anything from Gassendi. (McGuire 1966, p. 227 n. 74). But this suggestion of Cuphophron’s was pursued in the *Divine Dialogues*; and it was *rejected*. Not only that, but it was an opinion that More himself had *formerly* endorsed, and indeed endorsed in passages to be found in some of those of his works which—unlike the *Divine Dialogues* itself—we do know that Newton read, or at least owned. Although McGuire 1966 does still remain a useful study, McGuire 1982 is in many respects a better treatment of these issues (although it does not address this specific point directly).

instead for an unequivocally atomic conception of prime matter, the spatial conception was one with which he had earlier been dabbling. As far as the works of More that Newton actually possessed in his own library are concerned, neither the *Divine Dialogues* nor *Enchiridion metaphysicum* were represented: but he did own some of the earlier philosophical works (as well as some theological ones). I do not put any great weight on that fact alone, given that Newton would surely have had the opportunity to peruse any of More's works that he might have wished to see, without needing to possess his own copies of them; not to mention the fact that we cannot say for certain that he ever actually got round to *reading* every last book in his own library. But what I do point out, albeit only in a conditional form, is this: *if* More did help to inspire these speculations in Newton, it would more likely have been the *earlier* More.

But then, in some of Newton's own earlier writings, we see him not only offering an alternative account of prime matter, but actually linking it directly with More. In Chap. 2, we already observed the remark in Newton's early *Questiones* where he wrote: 'That matter may be so small as to be indiscernible the excellent Dr. More in his book of the soul's immortality has proved beyond all controversy.'⁷⁸ But let us now add the sentence which immediately precedes that one: 'It remains, therefore, that the first matter must be atoms.' However, in the discussion of atoms within *The Immortality of the Soul* itself, not once did More refer to them as constituting 'first matter', or 'prime matter', or 'Hyle', or anything else that kind. The place where that was offered, alongside the spatial theory, as one of two alternative characterisations of Hyle, was rather in the *Appendix to the Defence of the Philosophick Cabbala* in the 1662 edition of *Conjectura Cabbalistica*. This latter work had only recently been published when Newton was writing these notebooks, and Newton *might* have seen a copy.⁷⁹ He might also have read the 1647 *Philosophicall Poems*—we know that he did own a copy of that, although we do not know when he acquired it—where atoms were prominently wedded to the notion of first matter. But it would not be until *Enchiridion metaphysicum*, postdating Newton's *Questiones* by some seven years or so, that More firmly and unequivocally embraced a *purely* atomistic conception of first matter. The irony, then, is that, just as More was moving from away from a spatial conception of first matter and towards an atomistic one, Newton was moving in precisely the *opposite* direction.

To return to the spatial conception of prime matter that Newton proposed in *De gravitatione*, it should also be observed that there is another plausible inspiration for it besides More, even when we limit our attention to the early More. This alternative source was yet another Cambridge mathematician, and one who is well known to have acted as something of a mentor to Newton: namely, Isaac Barrow (1630–1677). Hall suggests that not only did Barrow have a closer personal relationship with Newton than More did, but that Newton's theory of space is also closer to Barrow's

⁷⁸ Newton 1983, p. 341.

⁷⁹ See the editors' introduction to Newton 1983, p. 59 and n. 76.

than it is to More's.⁸⁰ Osmond likewise suggests an influence from Barrow on Newton's theory of space, but also adds in a footnote: 'It should be mentioned, however, that Henry More, who held similar views about Space, was well known to Newton.'⁸¹ Baker considers the two together as likely joint influences on Newton.⁸² Burt does likewise, and also raises the intriguing possibility that, quite aside from their respective influences on Newton, there might also have been an influence passing between More and Barrow themselves.⁸³

In that latter regard, it is worth just mentioning that Barrow did at one point present an argument close to More's thought-experiment about two touching globes in an otherwise empty space, to demonstrate the possibility of an extension through a void, between the poles of the parallel axes. But it should also be noted that neither of them actually cited the other one, and their treatments of the argument are not exactly the same either: where More imagined two iron globes, Barrow imagined two entire spherical worlds.⁸⁴ We do not actually know all that much about the personal relationship between More and Barrow. Just as in the case of Newton himself, the fact that they were in Cambridge together (albeit at different colleges) means that they would have had ample opportunity to converse with one another; but the very same fact also means that we do not have the benefit of a written correspondence left between them. But we do at least know that More, Barrow and Newton all moved in the same circles. For instance, when Robert Boyle's *Several Tracts of the Strange Subtilty, Efficacy and Determinate Nature of Effluvioms* came out in 1673, he sent, via Oldenburg, a total of three copies to Cambridge. One was for Newton, one was for Barrow, and the other was for More.⁸⁵

Now, Grant objects that More's 'alleged influence on Barrow is at best superficial but, in light of their nearly antithetical conceptions of space, probably nonexistent.'⁸⁶ It is certainly true that there were major differences between Barrow's theory of space and the one on which More finally settled in his late works like the *Divine Dialogues* and *Enchiridion metaphysicum*. However, it is important to appreciate that Barrow's presentation of his own theory actually pre-dated both of those works; and his conception of space is indeed very much closer to some of More's earlier speculations. Barrow discussed the nature of space, and also time, in the lectures he delivered as Lucasian Professor of Mathematics in 1664–1669. (Newton would

⁸⁰ Hall 1990b, pp. 203, 209–214.

⁸¹ Osmond 1944, p. 117 and the note thereto.

⁸² Baker 1930, p. 21.

⁸³ Burt 1932, p. 149.

⁸⁴ For Barrow's version of the argument, see Barrow 1734, p. 171. For More's versions, see *Conway Letters*, pp. 487–488 (More to Conway, 5 May 1651); *An Antidote Against Atheism*, pp. 200–201 (Appendix, ch. 7, §§4–5); and *Enchiridion metaphysicum*, vol. 1, pp. 38, 51–52 (ch. 6, §2; ch. 7, §13). And compare Grant 1981, pp. 124–125, on Henry of Ghent's use of a similar argument.

⁸⁵ Newton 1959–1977, vol. 1, p. 305 (Oldenburg to Newton, 14 September 1673).

⁸⁶ Grant 1981, p. 236.

probably have attended at least some of these Mathematical, Optical and Geometrical Lectures. Indeed, Barrow actually assigned him the task of revising, correcting and amending the text of the Optical Lectures, at least, for publication).⁸⁷ The crucial tenth Mathematical Lecture was delivered in early 1665, three years *before* More's first public rejection (in the *Divine Dialogues* of 1668) of a conception of space as merely the potentiality of body; but three years *after* his fullest sympathetic discussion of that very notion (in the 1662 Appendix to *Conjectura Cabbalistica*). Notwithstanding the absence of an explicit citation, Barrow's treatment of space does show a strong general resemblance with *that* stage in More's evolving conception of space, not only in its theory but even in some of its phraseology.⁸⁸

There was one sense in which Barrow did allow space to be something real; indeed, at one point he did actually use that phrase, 'real space'.⁸⁹ A position that he took care to reject was Hobbes's contention that space was merely an idea or phantasm. For Barrow, space was certainly not unreal in the sense of being a purely mind-dependent entity. Mocking both Hobbes and the Roman Catholics in one fell swoop, Barrow described the absurdity to which such a notion could be reduced. 'As if the *Pope of Rome* did not reside in the *Vatican* Palace, nor live at *Rome*, but was placed every where in the Fancies of all Men that think of him: By which means he may easily be conceived an universal Pontiff.'⁹⁰

However, Barrow's emphasis more generally was on the unreality of space in a different sense. In the first of his Geometrical Lectures, in the context of a wider discussion of the nature of time, Barrow suggested that, just as time did 'not imply an actual Existence, but only the Capacity or Possibility of the Continuance of Existence', so too might space express only 'the Capacity of a Magnitude contain'd in it'.⁹¹ In the tenth Mathematical Lecture, Barrow developed this suggestion more fully. There, Barrow declared that 'Space is not any thing actually existent.' Recognising the appearance of paradox, he proceeded to explain his position: '*Space* is nothing else but the *mere Power, Capacity, Ponibility*, or (begging pardon for the Expressions) *Interponibility of Magnitude*.' That is to say, space

⁸⁷ See Barrow 1735, title-page and pp. iv–v. But note that, although this preface, with its reference to Newton's involvement, is here appended to the Geometrical Lectures, it instead preceded the Optical Lectures in the combined Latin edition of 1672, with a distinct, separate preface there preceding the Geometrical ones. It seems that it was only Barrow's Optical Lectures, not his Geometrical ones, that Newton actually had a hand in revising. There were certainly contributions that Newton *could* have made to the latter, related as it was to his own work on the calculus: but, recalling one such contribution (a new method of drawing tangents), Newton observed that 'some divertisement or other hindered me from describing it to him'. Newton to John Collins, 10 December 1672 (Newton 1959–1977, vol. 1, p. 248).

⁸⁸ On Barrow's theory, see Baker 1930, pp. 14–20; Burt 1932, pp. 144–154; Grant 1981, pp. 236–238; Hall 1990b, pp. 209–214.

⁸⁹ Barrow 1734, p. 172.

⁹⁰ Barrow 1734, pp. 140–141. See also pp. 177, 179–180.

⁹¹ Barrow 1735, p. 6.

amounted to nothing more than the fact that God, by his infinite power, could *put* (Latin: *ponere*) bodies into it. Barrow continued:

I thus explain my Meaning: Before the Creation of the World, there was no Body any where (as is reasonable and pious to believe) but yet it was possible for the greatest Body whatsoever then to exist, and obtain a determinate Position by the Will and Power of God, *i.e. there is Space*. There lies no Body, there is found no actual Dimension beyond the Mass of the Universe; but it is possible for a Body to be constituted and a real Dimension to be extended beyond that itself, *i.e. there is an Ultramundane Space*. If all the Matter be excluded by the divine Power from between these Walls, there will actually be no Body between them, but there will remain a Capacity of putting some Body between them, *i.e. there is an intermediate Space*.⁹²

Barrow additionally excused space from the substance-accident categorisation, as Gassendi had done and as Newton would be doing.⁹³ But he also stressed that, through this manoeuvre, he was not bringing ‘any other new real Beings into the Account besides Substance and Accident’, because space ‘only denotes some Mode or Possibility of both’.⁹⁴

As I have said, Barrow’s lectures were delivered three years before More devised, or at any rate published, his new theory of real space. In particular, More had not yet presented his new argument against the theory of space as potentiality, based on the identity between actual and possible beings. But Barrow would have rejected such an argument anyway. He certainly did not think that two *actual* magnitudes could coexist in the same space at the same time, for, as he put it, ‘one Act does perfectly fill up and exhaust only one Power’.⁹⁵ Hence the impenetrability of body. But he also stated explicitly: ‘*That no Space is tied to any particular Magnitude but may be successively filled, as the Thing will suffer, by innumerable others, according to its Measure and the Exigence of the adjacent Magnitudes*; for, as before was explained, *Space* is not a particular, but a kind of general and indefinite Capacity: And reciprocally. *That no Magnitude is tied to any particular Space*’.⁹⁶ As far as Barrow was concerned, the fact that space, and the various individual places that collectively constituted it, were to be identified with the potentiality of corporeal magnitude in no way entailed the sort of identity between places and bodies that would have rendered motion unintelligible.

All in all, notwithstanding the fact that Barrow’s conception of space was very remote from that of the *Divine Dialogues* and *Enchiridion metaphysicum*, it was nevertheless close to one that More had presented in some of his earlier works. Returning now to the case of Newton himself, the connection that he drew between space and Aristotelian prime matter did bring him in line with Barrow and the early More. However, there was also a crucial difference between his position and both of theirs. For both Barrow and the

⁹² Barrow 1734, pp. 175–176.

⁹³ Barrow 1734, pp. 164–165.

⁹⁴ Barrow 1734, p. 178.

⁹⁵ Barrow 1734, p. 182.

⁹⁶ Barrow 1734, pp. 181–182. See also pp. 189–190, 221–222.

early More, space was *just* a potentiality, rather than something real and actual in its own right. In the case of Newton, unlike Barrow but now like the *later* More, space as such was actually very real indeed. Whereas More's early sentiment was that space was infinitely unreal, not to mention being infinitely worse than any real thing, he ended up allowing space to display no trace of unactualised potentiality at all, instead regarding it as 'pure act'. As far as Newton was concerned, notwithstanding one of the *roles* that his space was going to play, its own intrinsic degree of reality was comparably high. Having first suggested the analogy between spatial extension and Aristotelian prime matter, Newton then immediately drew back and explained that there was at least one very important difference between them. Whereas the latter was supposed to be utterly formless, the former most certainly was not. 'They differ', he explained, 'in that extension (since it [involves] "what" and "how constituted" and "how much") has more reality than prime matter.'⁹⁷

Given that Newton's space was not only infinite, eternal and immutable, but was in some sense divine (see Chap. 6 below), it does indeed seem that it was going to need to be ascribed a pretty high degree of reality in its own right. Newton certainly displayed no inclination to follow Otto von Guericke down the path of holding that, despite its divinity, space could nevertheless be nothing at all. And one illustration of its high degree of reality lay in Newton's claim that spatial extension contained all figures not merely potentially but *actually*, notwithstanding the fact that they could not yet be sensed in it:

there are everywhere all kinds of figures, everywhere spheres, cubes, triangles, straight lines, everywhere circular, elliptical, parabolical, and all other kinds of figures, and those of all shapes and sizes, even though they are not disclosed to sight. For the delineation of any material figure is not a new production of that figure with respect to shape, but only a corporeal representation of it, so that what was formerly insensible in space now appears before the senses.... We firmly believe that the space was spherical before the sphere occupied it, so that it could contain the sphere; and hence as there are everywhere spaces that can adequately contain any material sphere, it is clear that space is everywhere spherical. And so of other figures.⁹⁸

This does have certain echoes of Barrow, who wrote: 'That all imaginable Geometrical Figures are really inherent in every Particle of Matter, I say really inherent in Fact and to the utmost Perfection, though not apparent to the Sense; just as the Essence of *Caesar* lies hid under the unhewn Marble, and is no new Thing made by the Statuary, but only is discovered and brought to Sight by his Workmanship, *i.e.* by removing the Parts of Matter which involve and overshadow it.'⁹⁹ This latter comment was noticed by Hall, who used it as a basis to characterise Barrow as a 'realist'.¹⁰⁰ And the two passages do indeed *seem* quite close: but, as a matter of fact,

⁹⁷ Newton 2004, p. 29/Newton 1962, pp. 140–141 (*De gravitatione*). The brackets are the editor's.

⁹⁸ Newton 2004, pp. 22–23/Newton 1962, p. 133 (*De gravitatione*). See McGuire 1982, especially pp. 147–161.

⁹⁹ Barrow 1734, pp. 76–77.

¹⁰⁰ Hall 1990b, p. 210; Hall 1996, p. 79.

they are not close at all. The crucial difference lies in the fact that, whereas Barrow was talking about how various figures would be actually (though invisibly) present in corporeal *matter*, Newton was talking about how they would be actually (though invisibly) present in *space*. As far as the containment of such figures in *space* was concerned, Barrow's position was precisely the opposite of Newton's. A hundred pages later, he wrote: 'Hence every positive Interval endowed with actual Dimension and really extended of itself, divisible, terminated, pertransible, or congruous to Bodies, is not denoted by the Word *Space*; but it only signifies that a Body may be so extended, may be so figured, is adaptable to such a Measure, and may exist either together in the same Instant or successively by Motion. I say it has no actual but only potential Figures, Dimensions and Parts consentaneous to its Nature.'¹⁰¹

All in all, Newton's space had a structure that was considerably more actual than Barrow's, and considerably more actual than More's had been during the period when More had still been hoping that it might be possible to understand the potentiality of body in spatial terms, on the model of the receptacle in Plato's *Timaeus*. Nevertheless, as I have suggested, Newton does seem to have felt that his own space could still play a comparable role, notwithstanding this high level of reality. Newton's suggestion in *De gravitatione*, that different parts of his space might present themselves as bodies of all kinds when appropriately configured impenetrability was applied directly to them, does indeed recall Plato's own suggestion that different parts of the Timaeian receptacle-space could present themselves as fire or water when they were inflamed or moistened.¹⁰² Space might not have *been* the potentiality of body, but it could nevertheless *support* that potentiality. Although real in itself, it could nevertheless play the passive partner in creation by receiving corporeal qualities from God into its own actually pre-existing dimensions.

I will return to these considerations in the final section of Chap. 6 below: but there is other ground that I am going to need to cover first. But, to sum up just for now, Newton's position thus comes across as something of an amalgam of various ideas that had been kept separate in earlier discussions. In claiming that space could play the role of supporting the potentiality of corporeal creation, Newton was agreeing with Barrow. In claiming that it nevertheless remained something real in itself, rather than just a 'pure' potentiality, he was agreeing with Gassendi. However, he was additionally agreeing with More on both of these points: but with the *early* More on the first point, and with the *later* More on the second.

After Newton came Samuel Clarke. Clarke did study at Cambridge, the university of More as well as Newton: but he did not arrive until 1690, three years after More's death. And, although Clarke certainly discussed many of the same ideas as More (and does mention him occasionally in his own writings),¹⁰³ his own views on space were almost entirely determined by Newton's treatment thereof. For the most part,

¹⁰¹ Barrow 1734, p. 177.

¹⁰² See McGuire 1982, especially pp. 172–180.

¹⁰³ For example, in Rohault and Clarke 1729, vol. 1, pp. 44–46 n. 1, at pp. 45b–46a (pt. 1, ch. 10, §11, note 1, corol. 3).

whatever features Clarke's position might happen to share with More's can be adequately explained by the fact that Newton's position had already been sharing those same features. If More did, as a matter of fact, have an influence on Newton's position, then perhaps, through him, an indirect influence might be identifiable in Clarke's work too—but *only* an indirect one, and, as such, not really worth our lingering over.¹⁰⁴ And then, as for later discussions of these issues, it was Clarke's presentation of Newtonian ideas, probably even more than Newton's own work and certainly more than More's, that drove the philosophical debate, at least in England. In particular, shortly after Clarke's death, he would preside *in absentia* over a pretty intense discussion of the nature of space, which played itself out among British philosophers during the early 1730s. Edmund Law criticised Clarke's theory of space in his 1731 translation of William King's 1702 *De origine mali*, which prompted John Clarke to mount a defence of his late uncle Samuel's ideas. This then provoked a sudden flurry of books and pamphlets, both in support of Clarke (principally from John Clarke and John Jackson), and against him (principally from Edmund Law, Joseph Clarke—no relation—and Isaac Watts). There is much of interest in this debate, but no real need for us to plough our way through it here.¹⁰⁵ Although it did take in most of the same *themes* that More had addressed at one time or another in his own works, in terms of *personnel* the debate had simply moved away from him. It was more recent figures who got consistently cited as the chief proponents of one position or another: primarily Newton and Clarke, plus Leibniz on the relativists' side.

Before closing, however, it would be worth saying a few words about one final figure in relation to More's own theories of space. This was someone who, along with Clarke and Newton, also cast a long shadow over that 1730s debate: namely, John Locke. The position that Locke set out in *An Essay concerning Human Understanding* is not so relevant here, notwithstanding the interest that it clearly does command in its own right. After all, that position conformed in all of its salient points with that of Newton and, afterwards, Clarke. (Indeed, there is even evidence

¹⁰⁴ I would just note in passing that Clarke did use the distinctively Morean term, 'indiscernible', where others might have used 'indivisible'—though, of course, so did Newton. The term crops up frequently in Clarke's four *Defenses of an Argument made use of in a Letter to Mr Dodwell* (written against Anthony Collins, 1707–1708), especially in the first of these. See, for instance, the extracts in Vailati 1997, p. 59 (quoting from that first *Defense*); or in Clarke 1998, pp. 151–152 (from the *Second Defense*). And Clarke also uses the term in his exchange with Leibniz: Clarke and Leibniz 1956, p. 48 (Clarke's fourth reply, on §§11 and 12). Unfortunately, regarding that last instance (which was specifically concerned with the inseparability of the parts of space), modern editors of the Leibniz-Clarke correspondence—or their typesetters—have consistently insisted on 'correcting' this word in his text, to make it read 'indiscernible'. But that Clarke really did mean to write what he actually wrote is abundantly clear from the fact that he offered the French *inseparable* in the translation he provided of his own letters in the first edition of the correspondence. The mistake is present in both Alexander and Robinet's editions of the correspondence, and it has been preserved in Ariew's more recent edition too, despite the fact that it was pointed out in the interim in Koyré and Cohen 1962, pp. 123–126.

¹⁰⁵ A thorough survey of this debate may be found in Baker 1930, pp. 58–67, 85.

to suggest that Locke was not only prepared to adopt Newton's conception of a real absolute space, eternally and immutably underlying all created bodies, but that he might have actually had some sympathy for Newton's conception of how God could create such bodies by applying mobile impenetrabilities directly to certain portions of this space).¹⁰⁶ I will have a little bit more to say about Locke's position in the *Essay*, in the final section of Chap. 6 below: but, on the whole, it does not have a great deal to offer us in direct connection with More's own treatment of space.

More intriguing, however, is Locke's journal of 1676–1677. Here, although Locke did not name More, we can find some speculations concerning the nature of space that might well be thought to owe something to him. And not just to owe something to More in general, but in fact to have been inspired by one specific passage from his works: namely, Chap. 7 of the Appendix to *An Antidote Against Atheism*. We know that Locke's library contained not one but two copies of this discussion, both in the 1655 edition of the *Antidote* and then anthologised in 1662's *A Collection of Several Philosophical Writings*.¹⁰⁷ We can speculate that Locke might actually have been reading this work in 1677, and that it might have played a significant role in leading him away from a Cartesian (or Hobbesian) identification between extension and body, in such a manner as to render him more receptive to the alternative Newtonian position that he would eventually be adopting.¹⁰⁸

In these notes, Locke did not initially display any inclination to countenance any form of extension besides that of created body—a fortiori, nothing like either Morean or Newtonian space. In an entry dated 27 March 1676, he wrote:

space or extension separated in our thoughts from matter or body seemes to have noe more reall existence then number has (sine re numerata) without any thing to be numberd and one may as well say the number of the sea sand doth really exist and is some thing the world being annihilated, as that the space or extension of the sea doth exist and is any thing after such an annihilation. These are only affections of real existences the one of any being whatsoever the other only of material beings.¹⁰⁹

¹⁰⁶ Most of this evidence is external: on which, see Bennett and Remnant 1978. But, even within the *Essay* itself, Locke did at least observe that 'the Extension of any Body is so much of that infinite Space, as the bulk of that Body takes up' (Locke 1975, p. 200 (bk. 2, ch. 15, §8)). Such a remark does not positively prove any commitment to the position presented in *De gravitatione*, but it would at least be consistent with it.

¹⁰⁷ Harrison and Laslett 1965, p. 192. Locke also owned copies of More's *Philosophicall Poems* (1647), *An Explanation of the Grand Mystery of Godliness* (1660), *A Modest Enquiry into the Mystery of Iniquity* (1664), his annotated edition of Glanvill and Rust's *Two Choice and Useful Treatises* (1682), and his *Answer to Several Remarks upon Dr Henry More his Expositions of the Apocalypse and Daniel* (1684). He also had Boyle's *Hydrostatical Discourse occasion'd by some Objections of Dr. More* (1672). Op. cit., pp. 92, 192, 223.

¹⁰⁸ I certainly do not pretend that More was the *only* influence on this shift in Locke's early thought. Gassendi, for one, probably also made a contribution: see Lennon 1993, pp. 149–163 and (especially) 276–288.

¹⁰⁹ Locke 1936, p. 77 (26 March 1676). See also Baker 1930, pp. 37–41, on Locke's discussions in these journals.

On 20 June, he added that 'Extension or their partes extra partes seemes to be proper only to body because body alone has partes and is divisible i.e. whose parts are separable one from an other.'¹¹⁰ There was nothing here that either Descartes or Hobbes would have had any quarrel with (notwithstanding the many other disagreements between the two of them).

A year and a half later, however, some important new ideas began to creep into Locke's discussion. The entry for 16 September 1677 begins with the declaration: 'Space in its self seemes to be noe thing but a capacity or possibility for extended beings or bodys to be or exist, which we are apt to conceive infinite'.¹¹¹ Now, of course, More was not the only person who had made such a suggestion. Comparable things had been said here and there, albeit infrequently, ever since Plato's *Timaeus*. But, taken together with some of the other points in this journal entry, More does seem the most likely candidate for a source of inspiration for Locke at this point. Although More had already (by this time) set about trying to refute this theory in his *Divine Dialogues* and *Enchiridion metaphysicum*, those were works that Locke, like Newton, did not own. But a place where More had suggested such a notion was in the Appendix to *An Antidote Against Atheism*, and he had there done so in very similar terms to those that Locke was using here. Let us look again at More's words: 'this Imagination of *Space* is not the imagination of any real thing, but only of the large and immense capacity of the potentiality of the *Matter*, which we cannot free our Minds from, but must necessarily acknowledge, that there is indeed such a possibility of Matter to be measured upward, downward, every way *in infinitum*'.¹¹² In each case, we see a denial that space is a real thing in its own right. (In the continuation of his remark, Locke proceeded to deny that this 'imaginary space' had any genuine reality of its own, prior to a body's being lifted into actuality within it).¹¹³ In each case, however, space is presented as the capacity for such bodies to be actualised; and, in each case, this capacity is characterised as infinite.

Still in the same journal entry, Locke proceeded to discuss distance, explaining that this—and, with it, space itself—was 'but a bare relation' between bodies, namely 'the relation of two bodys or beings neare or remote to one an other'.¹¹⁴ If there were no bodies, there would be no distance. In the continuation of Chap. 7 of More's Appendix, he too proceeded to discuss distance, and he suggested that it was only a 'notional' property, and was in fact 'nothing else but the privation of tactual union' between bodies.¹¹⁵

¹¹⁰ Locke 1936, p. 77 (20 June 1676). The editors have signalled that the reading of the word 'their' is uncertain. See pp. 77–80 for the ensuing discussion.

¹¹¹ Locke 1936, p. 94 (16 September 1677).

¹¹² *An Antidote Against Atheism*, p. 200 (Appendix, ch. 7, §3).

¹¹³ Locke 1936, pp. 94–95; see also 96 (16 September 1677).

¹¹⁴ Locke 1936, p. 95 (16 September 1677); cf. the entry for 20 January 1676, at pp. 77–80.

¹¹⁵ *An Antidote Against Atheism*, p. 200 (Appendix, ch. 7, §§4–5).

But then, in the closing paragraph of this journal entry, Locke proposed an alternative hypothesis:

If it be impossible to suppose pure noe thing or to extend our thoughts where there is or we can suppose noe being this space void of body must be something belonging to the being of the deity, but be it one or tother the Idea we have of it we take from the extension of bodys which call under our sences and this Idea of extension being settled in our mindes we are able by repeating that in our thoughts without annexing body or impenetrability to it, to imagin spaces where there are noe bodys, which imaginary spaces if we suppose all other manner of being absent are purely noething but meerly a possibility that body might there exist, or if there be a necessity to suppose a being there it must be god whose being we thus make i.e. suppose extended but not impenetrable but be it one or other extension seemes to me mentally separable from body.¹¹⁶

In short, if the notion that space was nothing real but merely a potentiality was deemed unsatisfactory, then space could alternatively be considered real but nevertheless penetrable and hence incorporeal, so as to be applicable to God himself. Either way, it would be possible to establish a distinction between space and actual body (notwithstanding the fact that the idea of extension upon which our idea of space had to rest was originally gathered in from our experience of sensible, impenetrable bodies).

But then this alternative hypothesis was *also* suggested in the very same chapter of More's Appendix. After the above remarks about space as the potentiality of matter, and then about distance as a privation of corporeal contiguity, More proceeded to offer the alternative hypothesis:

But if this will not satisfy, 'tis no detriment to our cause: For if, after the removal of *corporeal Matter* out of the world, there will be still *Space* and *Distance* in which this very Matter, while it was there was also conceiv'd to lie, and this *distant Space* cannot but be something, and yet not corporeal, because neither impenetrable nor tangible; it must of necessity be a Substance Incorporeal necessarily and eternally existent of it self: which the clearer *Idea* of a *Being absolutely perfect* will more fully and punctually inform us to be the *Self-subsisting God*.¹¹⁷

All in all, although some of what Locke wrote in this 1677 journal entry can easily be traced back to earlier entries in the same journal, and those entries do seem to have been inspired more by Descartes or Hobbes than by More, all of the *new* ideas that he was introducing for the first time here are not merely to be found in More's writings at large, but are actually gathered together in a single short passage in one specific work. Indeed, in the 1662 edition, they are all to be found in just one double-page spread—Locke would not even have needed to turn the page! Moreover, these ideas are not merely present in both More and Locke's discussions, but they are actually laid out in the same order of presentation: *first*, the notion of space as merely the potentiality of body, *then* a relational treatment of distance, and *then* the notion of a penetrable, divine extension. And the really

¹¹⁶ Locke 1936, p. 96 (16 September 1677).

¹¹⁷ *An Antidote Against Atheism*, p. 201 (Appendix, ch. 7, §6).

striking thing about the first and third of these theories, at least, is that they really did not fit comfortably together with one another. Both Locke and More recognised this fact, and both of them consciously and explicitly offered these theories as *alternative* hypotheses about the nature of space. Although I cannot prove it, I do suggest that this particular chapter of More's 1655 Appendix may well have been responsible for inspiring at least this particular 1677 discussion in Locke's journal, even if the sources for most of his later comments on space probably lay elsewhere.

Chapter 5

Spiritual Presence

1 Background: Holenmerianism and Nullibism

In some of his later works, and most prominently in the closing two chapters of *Enchiridion metaphysicum*, More discussed a pair of rival theories regarding the relation between immaterial substances and the spatial world of bodies. He called these theories ‘nullibism’ and ‘holenmerianism’: these were names of his own devising, and they never really caught on with other authors.¹ But the theories themselves were by no means new.

‘Nullibism’, from the Latin for ‘nowhere’, signified the theory that spiritual substances were not present anywhere in the spatial world. Maybe they could *act* therein, and perhaps be ascribed a derivative form of presence on that basis—merely a ‘virtual’ or ‘operational’ presence wherever they made their causal influence felt—but they themselves, qua substances, would subsist in a wholly transcendent realm of their own, quite separate from the world of extended things. As for ‘holenmerianism’, from the Greek for ‘whole in parts’, this signified the theory that spirits were indeed substantially present in the extended world, but with the proviso that they were present therein in a manner very different from that of bodies. A body’s presence would amount to its being spread out through a certain region of space, with really distinct parts outside parts. When a spirit was spatially present in a region of space, according to the holenmerians, it would be (as the Scholastic slogan expressed it) ‘whole in the whole, and whole in each part’. When a human soul was united to a human body, for instance, the two substances really would both be in the same place. The whole of the soul would permeate the whole of the space that was simultaneously occupied by the whole of the body, and this was what set the holenmerians apart from the nullibists. However, as far as the individual parts of the body were concerned, the

¹ The Oxford English Dictionary cites Joseph Glanvill, together with just a couple of later authors, as having adopted the term ‘nullibist’ from More. ‘Holenmerian’ is not listed at all.

person's foot would be in a different place from his head. In the case of the soul, by contrast, the hollenmerians believed that its entire substance would be present in the place occupied by the person's foot; but, thanks to its immateriality, it could also simultaneously be entirely present in the place occupied by his head.

The roots of the hollenmerian doctrine can be traced at least as far back as Plato, with the account he sketched in *Parmenides* of how the spatial presence of a Form might be understood. Socrates suggested that whole of the Form might be present in each of the things that partook of it and, in response to Parmenides' charge that this would mean that one and the same thing was separate from itself, he compared the case to that of a period of time. Although the same day is in many places at once, it is not thereby separate from itself.² (Admittedly, in the continuation of the discussion, Parmenides objected further to Socrates' theory, and Socrates backed down).

But it was really in the early centuries of the Christian era that the theory got properly established as an account of spiritual presence. Many of the Fathers of the Church, alongside many other philosophers of the time, were drawn to Plato's doctrine of Forms: but there was one element in some earlier versions of the theory that did not appeal to them, namely the notion that these Forms might be several distinct eternal and uncreated beings. God, they felt, ought to be the only eternal and uncreated being. Consequently, there was a shift away from treating the Platonic Forms as so many separate entities, towards treating them all as God's own ideas, gathered together in his mind and collectively consubstantial with him. It was only natural, then, that these philosophers should carry over certain other elements of the Platonic theory, and incorporate them into their conception of God himself.

And thus it was fairly common for Patristic authors to describe the omnipresence of God in the same hollenmerian terms (albeit more than a millennium before the theory was finally given that name) that Plato had suggested for the Forms in *Parmenides*. They did not merely hold that God was substantially present in each and every part of the created world. Regarding God as supremely indivisible, they were naturally led to the conclusion that the *whole* of this simple substance would need to be present in each place. Saint Hilary of Poitiers, for instance, straightforwardly declared that 'God is everywhere and wholly present wherever He is.'³ Equally—and more notably, given the depth and breadth of his influence on seventeenth-century philosophy—Saint Augustine was firmly committed to hollenmerianism. Reflecting in his *Confessions* on the state of ignorance in which he had once been, he recalled that, at that time, he had not yet appreciated what he now understood, that God could be 'wholly everywhere', in contrast to extended bulk which was 'less in a part than in the whole'.⁴

Turning from the divine case to that of the human soul, Augustine offered an analogous account of its own mode of presence. The soul was also supposed to be

² Plato 1963, p. 925 (*Parmenides*, 131a–b).

³ Hilary 1979, p. 53b (*On the Trinity*, bk. 2, ch. 6).

⁴ Augustine 1979, p. 64a (*Confessions*, bk. 3, ch. 8); see also op. cit., pp. 102b–103a (bk. 7, ch. 1), and Augustine 1956, p. 208a (*The City of God*, bk. 11, ch. 5).

indivisible. Consequently, if it was going to be spatially present at all, it had better not be by possessing distinct parts outside parts in the manner of a body, lest these should risk becoming separated from one another. Although a created spirit would not be omnipresent, as God was, Augustine still felt that it would be wholly present wherever it was present at all. Thus, in *De trinitate*, Augustine explained that the soul is ‘more simple than the body, because it is not diffused in bulk through extension of place, but in each body, it is both whole in the whole, and whole in each several part of it’.⁵

At around the same time as these Patristic authors, the same notion was equally being developed in pagan philosophical circles. Most notably, Plotinus—the chief influence on More’s own early philosophy—maintained both that the divine substance was omnipresent, and that created spirits were substantially present within their bodies. But, again in order to preserve the essential simplicity of such spiritual substances, Plotinus did not allow them to be spread out with parts outside parts. ‘That the Soul of every individual is one thing’, he wrote, ‘we deduce from the fact that it is present entire at every point of the body—the sign of veritable unity—not some part of it here and another part there.’⁶ And again: ‘The nature, at once divisible and indivisible, which we affirm to be soul, has not the unity of an extended thing: it does not consist of separate sections; its divisibility lies in its presence at every point of the recipient, but it is indivisible as dwelling entire in the total and entire in any part.’⁷ God, meanwhile, was ‘sovrainly present through all. We cannot think of something of God here and something else there, nor of all God gathered at some one spot: there is an instantaneous presence everywhere.’⁸ In Plotinus’s opinion, extension and the juxtaposition of parts specifically characterised body: therefore anything that was going to be incorporeal needed to be kept free of them.⁹ The strategy that Plotinus chose, to secure the incorporeality and indivisibility of spiritual things right across the board, was to place them wholly in the whole, and wholly in each part.

This notion was to recur again and again, throughout the ensuing Neoplatonic tradition that eventually led up to More. Ficino, for instance, was firmly in agreement with Plotinus on this point, as well as with Saint Augustine whom he cited directly.¹⁰ When a soul enters a body, Ficino maintained, ‘it is present in its entirety in the individual parts of the body. It is not divided up or separated into any parts in order to be present in the parts of the body that are distant from each other.’¹¹

⁵ Augustine 1978, p. 101a (*Of the Trinity*, bk. 6, ch. 6). See also Augustine 1979, p. 524a–b (letter 166 to Jerome, ch. 2).

⁶ Plotinus 1992, p. 418 (enn. 4, tr. 9, ch. 1).

⁷ Plotinus 1992, p. 294 (enn. 4, tr. 2, ch. 1).

⁸ Plotinus 1992, p. 472 (enn. 5, tr. 5, ch. 9).

⁹ Plotinus 1992, pp. 590, 595 (enn. 6, tr. 4, chs. 3, 8).

¹⁰ Ficino 2001–2006, vol. 2, p. 229 (bk. 7, ch. 5).

¹¹ Ficino 2001–2006, vol. 1, pp. 237–239 (bk. 3, ch. 2).

But this notion was by no means exclusive to the Neoplatonists and the Platonically-inclined Fathers. It was, if anything, even more firmly established as something close to orthodoxy within Scholastic Aristotelianism. Indeed, in More's *Divine Dialogues*, the character of Hylobares would announce, quite straightforwardly and without any qualification, that this was 'the description of the venerable Schools'.¹² It was, indeed, pretty hard *not* to wind up with a theory of this kind, once one accepted two fairly innocuous doctrines: first, that spirits were present in the spatial world, not just operationally but substantially; and, second, that they could not be spread out with parts outside parts as bodies were. The second principle, as I have said, arose out of the doctrine that spirits were simple, indivisible substances. If a spirit had no distinct parts, such as might distribute themselves among the various distinct regions of the whole body upon which it was acting, then there was little alternative to its being not just whole in the whole but also whole in each part. As for the first principle, that arose out of a metaphysical extrapolation of the physical principle of 'no action at a distance'. Just as it was almost universally agreed that one body could not influence another body unless it (or possibly some other corporeal intermediary) actually *touched* it, so too was it also widely felt that a spirit could not affect a body either, unless *it* was present to it.¹³ If a spirit was not present in the spatial world, then it would not be in a position (either literally or figuratively) to exert its power on spatial things, that power not being really distinct from the spirit to which it belonged. But, if a spirit needs to be substantially present throughout the whole of a certain body, and if it cannot be only partly present in each part of that body, then it had better be wholly present in each part. The slogan '*tota in toto, et tota in qualibet parte*' became the standard formula that Scholastic authors in general would employ to capture the nature of spiritual presence, be it the presence of a created spirit in the body to which it was united, or the omnipresence of God himself throughout the entire spatial world.

Thus Saint Thomas Aquinas, to take just one example, would write:

God is in all things; not, indeed, as part of their essence, nor as an accident; but as an agent is present to that upon which it works. For an agent must be joined to that wherein it acts immediately, and touch it by its power; hence it is proved in *Physic.* vii. that the thing moved and the mover must be joined together.... No action of an agent, however powerful it may be, acts at a distance, except through a medium. But it belongs to the great power of God that He acts immediately in all things. Hence nothing is distant from Him, as if it could be without God in itself.... Hence, as the soul is whole in every part of the body, so is God whole in all things and in each one.... God is said to be in all things by essence, not indeed by the essence of the things themselves, as if He were of their essence; but by His own essence; because His substance is present to all things as the cause of their being.¹⁴

¹² *Divine Dialogues*, p. 47 (dial. 1, §22).

¹³ For a very extensive taxonomy of (mostly) Scholastic attitudes to the 'no action at a distance' principle—construed both physically and metaphysically—see Kovach 1980, 161–171.

¹⁴ Aquinas 1920, pp. 82, 82–83, 85, 87 (pt. 1, qu. 8, arts. 1–3). The reference is to Aristotle 1984, vol. 1, p. 409 (*Physics*, bk. 7, ch. 2; 243a32–35).

Saint Thomas allowed that the reason why God had to be regarded as omnipresent did indeed derive from his causal operation in the spatial world, but he did not reduce his omnipresence to the mere fact of that operation alone. This was an omnipresence of God's own substance, and not only of the power whereby he acted. And it was a hologenmerian 'whole in each part' presence.¹⁵

However, although this sort of theory was very common—indeed, predominant—during the centuries prior to the seventeenth, there were nevertheless exceptions. John Duns Scotus, for instance, maintained that the fact that spirits *could* act at a distance (or, more accurately, the fact that they could act without being present to their patients) was itself a testament to their potency. Above all, God's omnipotence was manifested in the fact that he did not need to be substantially present anywhere, whether in part or in whole, in order to be able to act everywhere. His will was entirely sufficient by itself. God's omnipresence was explicated by Scotus as amounting to *merely* a virtual, operational presence.¹⁶ Scotus was thus committed to the theory to which More would eventually give the name 'nullibist'.

However, this fact seems to have been lost on More.¹⁷ In the *Divine Dialogues*, just as Hylobares attributed hologenmerianism to the venerable schools without any elaboration or qualification, so too would Cuphophon, presenting the nullibist alternative, announce that he was 'resolved to stand and fall' with Descartes.¹⁸ As far More himself was concerned, Descartes was 'chief' and 'first author' of the nullibists.¹⁹ He never alluded to Scotus, or, indeed, to any other pre-Cartesian nullibists at all. Moreover, it is a testament to the historical rareness of theories of this kind that Pierre Bayle would write in his *Historical and Critical Dictionary* that:

Until Descartes, all our learned men, whether theologians or philosophers, had ascribed extension to spirits—an infinite one to God, and a finite one to angels and rational souls. It is true that they maintained that this extension is not material nor composed of parts and that spirits are completely in every part of space that they occupy. From this it followed that there are three kinds of local presence: the limited presence of bodies, the definite presence of spirits, and the omnipresence of God. The Cartesians have overthrown all these doctrines. They say that spirits have no kind of extension, nor local presence. But their view is rejected as absurd. Let us say then that even today almost all our philosophers and all our theologians teach, in conformity with popular views, that God is diffused throughout infinite spaces.²⁰

¹⁵ For a few more historical examples of this sort of theory, see Grant 1981, pp. 143, 222, 350 n. 127. For discussion, see Des Chene 2000, chs. 9 and (especially) 10. Also, with reference to the Descartes-More correspondence as well as to the Scholastic background, see Rozemond 2003; and Pasnau 2007, pp. 294–96, especially the footnotes.

¹⁶ See Sylwanowicz 1996, pp. 171–181. Also Funkenstein 1986, pp. 50–59, especially pp. 54 and 59; and Grant 1981, p. 146. But contrast Pasnau 2007, pp. 295–296 n. 14.

¹⁷ Grant 1981, pp. 399–400 n. 238.

¹⁸ *Divine Dialogues*, p. 72 (dial. 1, §33).

¹⁹ *Enchiridion metaphysicum*, vol. 1, p. 98 (ch. 27, §2, together with its title). See also the scholium to Descartes' August 1649 letter to More, in More's edition of *Epistolae quatuor*, p. 109.

²⁰ Bayle 1991, pp. 280–281 ('Simonides', note F).

However, even if More did not refer to any pre-Cartesian nullibists, he did not regard the Cartesians as the only nullibists on the scene in his own time. At one point in the 1679 scholia to *Enchiridion metaphysicum*, More alluded to ‘the Nullibists themselves, apart from all the Cartesians’. For an example of someone apart from the Cartesians, whom More nevertheless described as ‘that most shrewd defender of Nullibism’, he referred to the author of a book that he identified as *De Mole ac Fimbria Mundi*.²¹ In translating *Enchiridion metaphysicum* from More’s Latin, Alexander Jacob puts this title into English as *Of the Mass and Structure of the World*, and he notes that he has been unable to identify the work in question.²² This is presumably because Jacob mistook *De Mole ac Fimbria Mundi* for the original title of the book, whereas in fact this was merely More’s own Latin translation of a different English title. The book was *A Treatise of the Bulk and Selvedge of the World* (1674),²³ and its author was one Nathaniel Fairfax (1637–1690). Fairfax’s book dealt with such topics as the extension and duration of the world, and the relation of God and created spirits to this extension and duration. It attracted More’s attention by referring directly to him, addressing points raised in the original 1671 text of *Enchiridion metaphysicum* as well as other works.²⁴ More addressed these comments in the scholia he added to the expanded 1679 edition, and he took the occasion to criticise Fairfax more widely too.

And yet More’s nullibist interpretation of Fairfax’s work was in fact a misreading. Fairfax certainly did reject More’s mature notion (to be explored in the next chapter) that spirits were literally extended with (indiscernible, notional) parts outside parts, and he occasionally elucidated this rejection in such a way that one can understand how More might have mistaken him for a nullibist.²⁵ Explaining that the notion of ‘place’ or ‘whereness’ only applied to extended bodies, and was indeed equivalent to the notion of extension, Fairfax did claim that such a notion was not applicable to spirits.²⁶ In a certain sense, then, spirits were nowhere. But, for Fairfax, the sense in which they were nowhere did not conflict at all with their having substantial presence within the world, but *only* conflicted with their having parts outside parts. In the case of the divine spirit in particular, Fairfax expressly rejected the possibility that God could be omnipresent in a *purely* operational sense. He argued, just as many others (including More, as we will shortly see) had regularly argued, that, given that the power whereby God acted on spatial things was not distinct from his own substance and essence, it was necessary for him to be substantially present throughout space in order to be in a position to act upon spatial things: ‘For I bethink

²¹ *Enchiridion metaphysicum*, vol. 1, pp. 114–115, 139 (ch. 27, §12, scholium; ch. 28, §21, scholium).

²² *Enchiridion metaphysicum*, vol. 1, p. 115 n. 1.

²³ The title-page clearly states 1674 as the publication date, but the epistle dedicatory is dated 25 March 1678. One of these is presumably incorrect, but what is not so clear is which one.

²⁴ Fairfax 1674, pp. 61, 89–90, 194.

²⁵ Fairfax 1674, pp. 16, 24–25, 42, 44, 82–83, 103.

²⁶ Fairfax 1674, pp. 43–44, 77.

my self, that God is as boundless in his Almightyness as in his All-fillingness. Now Gods Almightyness is within the least *punctum physicum*, or dustling of body, ('twas made and is kept in being by Almightyness). But Gods Almightyness being God himself, himself is there altogether.'²⁷ Having established the omnipresence of God's substance, Fairfax still wanted to preserve him from any trace of corporeality and, as this very passage itself indicates, his solution was the holenmerian one. God, wrote Fairfax, 'is not partly in one piece of this world and partly in another; but wholly in all, and wholly in each.'²⁸ As for created spirits, he likewise declared: 'The soul is as cleaveless or indivisible as a point of roomthiness, or a now of time; and yet 'tis as much in every roomthy part of the body, all at once and altogether, as in the very least.'²⁹ In fact, the *only* two alternatives to this holenmerian theory that Fairfax was even willing to contemplate were that either 'the soul is as bulkie as the body, and as full of parts as it; or else as little as an atome, and so takes up only the least room in it; both which are so easie to take off, that a few words will be enough to dispatch them.'³⁰ The nullibist theory, whereby spirits did not merely have no 'place' in a technical sense of that term, but did not have any form of substantial presence in the world at all, never even occurred to Fairfax!

In the next section, we will examine Cartesian nullibism (for More did tackle a number of the Cartesians head-on, not limiting his attention to Descartes alone), using this as a case-study to enable us to explore More's own views on this issue.³¹ But the lesson that we should perhaps be drawing from the case of Fairfax is that More's ascriptions of nullibism to his opponents are not always to be taken at face value. With regard to the Cartesians themselves, More's allegations of nullibism were on *slightly* stronger ground than they were with Fairfax: but, as we will see, the situation was still not altogether straightforward.

2 More's Refutation of Nullibism

At the heart of More's antipathy towards nullibism was a sentiment that the claim that spirits did not exist anywhere was veering dangerously close to the claim that they did not exist *tout court*. But, in terms of actual, philosophical arguments, the one to which More would return throughout his career was the traditional 'no action at a distance' argument. Or, more precisely, the argument that a spirit's operation in a certain place required that the spirit itself should be present there, substance and

²⁷ Fairfax 1674, p. 60.

²⁸ Fairfax 1674, p. 104.

²⁹ Fairfax 1674, p. 26.

³⁰ Fairfax 1674, p. 27.

³¹ I have tackled Cartesian attitudes to the spatial presence of spirits head-on in Reid 2008. There is some overlap between this article and the following section, but I expand upon the specifically Cartesian material more fully in the article than I do here.

all, because the power whereby it operated was inseparable from the substance to which it belonged.

Even in the very earliest stages of his career, More was never attracted to nullibism. In the poems he asked, 'Who can gainsay but God is every where', and he declared that 'His Ideall, / And Centroll presence is in every Atom-ball.'³² Turning to the case of a created spirit, More's position was just the same:

Thus with great confidence
 We may conclude that th' humane souls essence
 Is indivisible, yet every where
 In this her body. Cause th' intelligence
 She hath of whatsoever happens here:
 The aking foot the eye doth view, the hand doth cheer.³³

Here we have not only a statement of the spatial presence of a spirit's essence, but also an argument for that conclusion. The second sentence should be read as: 'The eye views the aching foot and the hand cheers it, because of the intelligence the soul has of whatsoever happens in the body.' The argument is based on the fact that the interaction among the different organs of the body tends towards the preservation and improvement of the whole. This, in More's opinion, shows that there must be a single, operative intelligence, presiding over all of the parts of the body at once, and directing them all in unison with this one common end in view. But then, on the basis of this operative control, More concludes (in the first sentence of the extract) that an indivisible soul must be present everywhere in the body, and that this is not merely true of the soul's operation but of its very essence.

However, it is not until the correspondence with Descartes, which followed shortly after the period of these poems, that we find More's fullest early exploration of the crucial distinction between substantial and merely operational presence. In his first letter, of 11 December 1648, More explained his reason for believing that God had to be present in the spatial world: 'he is certainly omnipresent, and he intimately occupies both the entire mundane machine and each individual particle thereof. For how could he impress motion onto matter, as he once did, and as you claim he still does even now, unless he closely touched the matter of the universe, or at least had once touched it? Which he certainly could never have done, if he was not present everywhere, and occupied each individual place.'³⁴ In his first reply, Descartes did not directly respond to the specific point that More was pressing here. But More continued to play up the omnipresence of God in his next letter, for instance in casually glossing the notion that he was 'positively infinite' as meaning that he 'existed everywhere', and in straightforwardly declaring that 'everyone to a man, idiots as much as philosophers, will acknowledge that God occupies each point in the world.'³⁵ And this did now prompt Descartes, in his second reply,

³² *The Complete Poems*, pp. 95b; 20a respectively (*Democritus Platonissans*, st. 47; *Psychozoia*, cant. 2, st. 10).

³³ *The Complete Poems*, p. 62a (*Psychathanasia*, bk. 2, cant. 2, st. 32).

³⁴ *Epistolae quatuor*, p. 62/AT 5:238–239 (More to Descartes, 11 December 1648).

³⁵ *Epistolae quatuor*, pp. 76–77/AT 5:304–305 (More to Descartes, 5 March 1649).

properly to address not merely the *fact* of the omnipresence of God—something he had never disputed—but more narrowly the *nature* of that omnipresence.

In doing so, Descartes appealed to the fundamental distinction underlying nullibism, the distinction that seemed to allow spirits to be related to spatial things *only* by their power, while nevertheless offering a way to preserve their actual substances from any form of spatiality. Descartes explained to More: 'For my part, in God and angels and in our minds I understand there to be no extension of substance, but only extension of power... You seem here to make God's infinity consist in his existing everywhere, which is an opinion I cannot agree with. I think that God is everywhere in virtue of his power; yet in virtue of his essence he has no relation to place at all.'³⁶ So far, so good. If such a distinction could be defended, then the nullibist position could indeed be set upon a firm foundation. And yet, instead of providing a robust defence of this crucial distinction, Descartes immediately proceeded to undermine it. In his very next sentence, Descartes conceded: 'But since in God there is no distinction between essence and power, I think it is better to argue in such cases about our own minds or about angels, which are more on the scale of our own perception, rather than to argue about God.'³⁷ To sum up: (i) God was 'everywhere in virtue of his power' and had an 'extension of power'; (ii) he had no relation to place 'in virtue of his essence' and had no 'extension of substance'; and yet (iii) his power and his essence were one and the same thing. More would appear to be well within his rights to question such a position. If this is not an outright contradiction, it does seem to be dangerously close to one. If God's power just *is* his essence, then how can he be spatially present in virtue of this thing when we refer to it in one way, and yet cannot be spatially present in virtue of the very same thing when we happen to change the name we choose to give it? One can certainly understand why Descartes might have wished to change the subject.

The trouble lay in God's supreme simplicity. As far as Descartes was concerned, there were certainly no real distinctions to be discovered within God, nor even so much as modal distinctions. At best, we could recognise only a rational or conceptual distinction in him. This was the kind of distinction that Descartes regarded as holding 'between substance and something attributed to it without which the substance itself cannot be understood, or between two such attributes of some single substance. And rational distinction is recognized from the fact that we cannot form a clear and distinct idea of this substance if we exclude that attribute from it; or cannot clearly perceive the idea of one attribute of this kind if we separate it from the other.'³⁸ When we conceive of any of God's attributes individually, the actual object of our thought will always be one and the same simple God, who still comes complete with all of his other attributes; it is not possible for us positively to conceive of

³⁶ *Epistolae quatuor*, p. 85/CMSK 3:372–373/AT 5:342–33 (Descartes to More, 15 April 1649). See Des Chene 1996, pp. 387–390; Rozemond 1998, pp. 178–180; Rozemond 2003, especially pp. 357–358; Pasnau 2007, pp. 291–297.

³⁷ *Epistolae quatuor*, p. 85/CMSK 3:373/AT 5:343 (Descartes to More, 15 April 1649).

³⁸ Descartes 1991, p. 28/AT 8A:30/CSM 1:214 (pt. 1, §62). And see §§60–62 for Descartes' full taxonomy of distinctions, together with Kaufman 2003, pp. 560–571; and Skirry 2004.

one of these as existing in the absence of the rest. The best that we can do is consider God partially, by focusing our intellectual attention on one of his attributes, while not giving any thought *one way or the other* to the rest. And it is this kind of partial consideration that is the mark of a distinction of reason. (Such partial consideration is also, incidentally, the very same means whereby More believed that we could separately consider different regions within an indiscernible extension: see §2 of the next chapter below, pp. 188–190). As Francisco Suárez (1548–1617) put it, in an important late-Scholastic discussion that may well have helped to shape Descartes' thinking on these matters (and which went into considerable more detail than Descartes himself ever did), we would draw a distinction of reason by forming 'inadequate concepts of one and the same thing. Although the same object is apprehended in each concept, the whole reality contained in the object is not adequately represented, nor is its entire essence and objective notion exhausted by either of them.'³⁹ Notwithstanding our inadequate concepts, God's attributes were really identical to one another as they existed in God himself, and each one was identical with his entire essence and substance.

In a letter to an unknown correspondent of 1645 or 1646, Descartes made it clear that this was indeed the only sort of distinction that could apply to God. Further elaborating, he did then point out that he regarded all rational distinctions as (to employ the Scholastic jargon) 'distinctions of the reasoned reason' ('*distinctio rationis ratiocinatae*').⁴⁰ That is to say, he did believe that they needed to have *some* kind of grounding in the nature of the thing that was being conceived, as opposed to 'distinctions of the reasoning reason' ('*distinctio rationis ratiocinantis*') which were purely the creatures of the mind alone. However, even if a distinction of the reasoned reason needed some kind of objective foundation, the crucial thing to appreciate is that this foundation did not need to subsist in the object *as a distinction* of any kind at all. Suárez had also treated the case of the divine attributes as being characterised by a distinction of the reasoned reason, and he explained the nature of the grounding of these attributes as follows: 'Thus in God we distinguish His justice from His mercy, because we do not conceive the sublimely simple virtue of God as it is in itself and according to the full range of its energy. We partition it into concepts in line with the various effects of which that eminent virtue is the principle, or by analogy with various virtues which we find distinct in man, but which in an inefably eminent manner are found united in the absolutely simple virtue of God.'⁴¹ When God spares a sinner, we regard him as merciful; when he punishes one, we regard him as just: but it is through exactly the same simple virtue that he performs both actions, which are diversified only in relation to their objects. The object of our consideration still remains one and the same essence, with nothing to undermine the real identity between God's substance, essence and attributes. It was indeed a commonplace within Scholastic circles to declare that whatever is *in* God, *is* God.

³⁹ Suárez 1947, p. 19 (*Disputationes metaphysicae*, disputation 7, §1.5).

⁴⁰ CSMK 280/AT 4:349 (Descartes to ***, 1645 or 1646).

⁴¹ Suárez 1947, p. 19 (*Disputationes metaphysicae*, disputation 7, §1.5). And see p. 18 (§1.4).

For instance, as Saint Thomas noted, now specifically in relation to the attribute that really concerns us, namely God's power: 'whatsoever is in God, is God, as was shown above (Q.III., A.3)... God's action is not distinct from His power, for both are His divine essence; neither is His existence distinct from His essence.... Power is predicated of God not as something really distinct from His knowledge and will, but as differing from them logically.'⁴² And the Cartesians themselves seemed perfectly content to adopt such a position. To take just one example, Antoine Le Grand would write:

Forasmuch as all the *Perfections* that are, or we can think of in *God*, are not only actually present in his *Nature*, and inseparably united with it; but are so intimately joyned, that the one is the other; yea, that one of them is all the rest, and All are most properly One in their *Essence*.... *God* is said to be *One*, because all that is in him is *One*, neither hath he any *Attributes* that are not *Essential* to him, and Inseparable from him. And therefore according to our *Philosophy*, the *Divine Attributes* are only Modes of *Thinking*. For when we distinguished his *Will* and *Understanding*, that distinction is only made by our *Minds*, as we conceive him to be conversant about *Goodness* or *Truth*.... Wherefore whatsoever is in *God* is only distinguishable by reason.⁴³

On the face of it, it would certainly seem to follow from this that God could not *merely* be present through his power. If he was to act on spatial things—as Descartes agreed that he did—and was thereby related to them through his power, then he would need to be related to them through his entire substance and essence too, for these were all just one and the same thing with the power whereby he acted. Whatever distinctions of reason we might be inclined to draw between God's power, substance and essence, these purely epistemological considerations could have no bearing on the actual metaphysics of the case.

And so More returned to the issue again in his third letter: 'it made me equally astonished that, in your response to the penultimate instances, you conceded that he was everywhere in virtue of power, but not in virtue of essence, as if the divine power, which is a mode of God, was situated outside God, for each real mode is always intimately united to the thing of which it is a mode. From which it is necessary that God is everywhere, if his power is everywhere.'⁴⁴ In an (unsent) reply, Descartes finally bowed to the pressure, and he accepted the point that More had been pressing all along. 'It is certain', he wrote, 'that God's essence must be present everywhere for his power to be able to manifest itself everywhere.'⁴⁵

In eliciting this crucial concession from Descartes, More would appear to have won the debate. That was, at any rate, how he read the situation. In a 1679 scholium, he deliberately drew his readers' attention to the contradiction between this new statement and what Descartes had written in his previous reply, adding: 'but if, as

⁴² Aquinas 1920, pp. 345, 346, 347 (pt. 1, qu. 25, art. 1).

⁴³ Le Grand 1694, p. 64a–b (bk. 1, pt. 2, ch. 7, §§2, 6).

⁴⁴ *Epistolae quatuor*, p. 90/AT 5:379 (More to Descartes, 23 July 1649).

⁴⁵ *Epistolae quatuor*, p. 118/CSMK 381/AT 5:403 (Descartes to More, August 1649). This is the first of the two pages called '118': see the comment on this edition in my bibliography.

I hope, his opinions changed, then I am pleased'.⁴⁶ Where Descartes had earlier been saying that 'in virtue of his essence he has no relation to place at all', he had now been led by the force of argument to concede that God's essence did indeed need to be present everywhere. Emile Bréhier has observed that, in the light of Descartes' suggestion that immaterial things penetrated extension by their power, not by their essence, it would only be necessary to show that power and essence were one and the same thing in order to make Descartes' thought coincide with More's (in the divine case, at any rate).⁴⁷ But this is precisely the point that Descartes was here conceding. Consequently, after Claude Clerselier supplied More with a copy of Descartes' unsent letter, More could tell him with satisfaction that there was no longer any disagreement between Descartes and himself on the issue of God's omnipresence.⁴⁸

Much later, in *Enchiridion metaphysicum*, we find More accusing other Cartesians of contradicting themselves in a similar way. He cited a few specific passages out of Lambert van Velthuysen and Louis de La Forge in particular. The latter had written: 'Lastly, when I say that God is present to all things by his omnipotency, I do not wish to deny that He is even by His essence and substance present to them. All these things are not in God unless they be one and the same thing.'⁴⁹ But More crowed: 'Do you hear, my Nullibists, what one of your chief fellow disciples and most religious fellow-priests of the ancient secret, I mean of Nullibism, clearly professes—that God is present even by His essence or substance to all parts of the matter? And yet it does not shame you to assert, in the mean while, that neither God nor any created spirits can be somewhere?'⁵⁰ Now, there clearly would be a contradiction here if La Forge and the others really were committed to saying both that the essence or substance of God was everywhere and also that it was nowhere. (Ironically, it would be much the same contradiction as the one inherent in the traditional mystical dictum, that God was a circle whose centre was everywhere and whose circumference was nowhere, a dictum that More himself had no qualms in embracing throughout his career).⁵¹ But what is not so clear is that the Cartesians really were committed to the latter claim at all.

⁴⁶ *Epistolae quatuor*, p. 109 (Descartes to More, August 1649, More's scholium on §3). Note that p. 109 follows the p. 118 that I cited in my last note: see the same comment in the bibliography.

⁴⁷ Bréhier 1937, p. 27.

⁴⁸ *Epistolae quatuor*, p. 110/AT 5:643–644 ('Responsio ad fragmentum Cartesii', §3). This is the next page after the p. 109 just cited: see the same comment in the bibliography.

⁴⁹ *Enchiridion metaphysicum*, vol. 1, p. 102 (ch. 27, §6), here following Jacob's translation from More's quotation out of La Forge 1997, p. 117 (ch. 12).

⁵⁰ *Enchiridion metaphysicum*, vol. 1, pp. 102–103 (ch. 27, §6).

⁵¹ *The Complete Poems*, pp. 92a, 156a–b (*Democritus Platonissans*, st. 8, and the note thereto); *The Immortality of the Soul*, p. 13 (bk. 1, ch. 4, §3); *Enchiridion metaphysicum*, vol. 1, pp. 17–18 (ch. 2, §10, scholium). The dictum (expressed in terms of either a circle or a sphere) seems to have originated in the twelfth century Hermetic text, *Liber XXIV philosophorum*, and had been adopted many times since.

It is quite true that they would regularly begin their discussions by maintaining that God was omnipresent in virtue of his power, to the extent that he was capable of acting anywhere in the spatial world, and they would sometimes dress this up in such a way as to suggest that they believed that this exhausted the nature of God's omnipresence. But, when one looks more closely, one finds that it was actually quite common for the Cartesians to follow More's own line of argument, via the real identity between God's power and his simple substance and essence, to the conclusion that he had to be substantially and essentially omnipresent too. Thus, to take another example, Le Grand would write: 'Neither can I assent to those who say, that *God* is present every where, not by his *Essence*, but by his *Power* only, by which they seem to divide his *Power*, from his *Essence* and other *Attributes*; whereas indeed all things that are in *God*, are one with his *Essence*; nor are his *Attributes* any thing else, but divers *Modes of Thinking*.'⁵² Or, to take the most emphatic of a number of other examples that might be mentioned, Malebranche almost ridiculed the notion that God might be merely operationally omnipresent. In his *Dialogues on Metaphysics and Religion*, when the character of Aristes began to trot out the nullibist line that God was 'present by His operation. But...', Malebranche's spokesman, Theodore, felt compelled to cut him off in mid-sentence and exclaim: 'How "by His operation"? What kind of reality is God's operation as distinguished and separated from His substance? By "God's operation" you do not mean the effect He produces, for the effect is not the action, but the end of the action. Apparently by "God's operation" you mean the act by which He operates. Now, if the act by which God produces or conserves this chair is here, surely God is here Himself.'⁵³ Once again, the conclusion rested on two principles: (i) that God's power manifested itself in the spatial world, and (ii) in Malebranche's own words (albeit drawn from a different context), 'everything that is in God is, substantially, all of God.'⁵⁴ If God's power was operating there, then God himself had to be there too.

Different Cartesians, it is true, showed greater and lesser degrees of reluctance in embracing such a conclusion. Descartes himself was not prepared finally to do so until his third reply to More. Perhaps this was because he first wanted to get the measure of More, and to satisfy himself that there was no danger that More would read into such a concession any kind of support for the notion that God was corporeal. After all, More himself had been claiming in this very correspondence that God was 'in a sense' extended. When that sense was eventually elucidated fully, it did become clear that More was very sharply separating this kind of so-called extension from the kind that pertained to bodies: but Descartes would have wanted satisfaction on this point before he would have been prepared to offer anything that might potentially have been used as ammunition in a campaign to corporealise God. But other Cartesians were very much more open and explicit on this point than their leader

⁵² Le Grand 1694, p. 67a (bk. 1, pt. 2, ch. 9, §7).

⁵³ Malebranche 1997a, p. 133 (dial. 8, §5).

⁵⁴ Malebranche 1959–1984, vol. 19, p. 883 (Malebranche to Mairan, 12 June 1714).

had been, spontaneously coming up with the very same argument that More was presuming to use *against* them.

As a matter of fact, with the possible exception of Pierre Poiret (a rather peculiar philosopher who was briefly associated with the Cartesian school before eschewing rigorous philosophy in favour of outright mysticism), it is not at all clear that *any* of the Cartesians can unambiguously be regarded as nullibists at all, with respect to the divine omnipresence, while several unambiguously cannot. Indeed, we have it from Poiret himself that ‘all those who are called Cartesians’ maintained that the essence of God really did need to be everywhere, in order that his power might be exerted anywhere.⁵⁵ But then, it is not as though any of the Cartesians actually identified themselves as ‘nullibists’: that was More’s word, after all. If they read More’s critiques of nullibism, they might indeed have had some difficulty in recognising themselves therein. In the divine case, they were not openly contradicting their own principles, notwithstanding More’s allegation, because the principles that More was attributing to them were no more their own than the principles he attributed to Fairfax were Fairfax’s. To the extent that More’s argument was successful, it only really succeeded against a straw-man.

So much for the omnipresence of God: what about the presence (or otherwise) of created spirits in the bodies to which they are united? Here, More’s nullibist reading of the Cartesians does seem to have considerably more going for it than in the divine case.

Malebranche, who had been the most emphatic in insisting upon the substantial omnipresence of God, would also prove to be the most emphatic in *denying* the substantial presence of created spirits in the bodies to which they were united. On account of his wider commitment to occasionalism, Malebranche felt that, strictly speaking, the mind did not even have so much as an operational presence in the spatial world, let alone a substantial one. He did still allow the mind to be united to the body, and he still explained this union in the usual Cartesian terms of a reciprocal interaction: but, because such ‘interaction’ did not involve any direct efficient causation, of a sort that might have required some kind of co-presence, there was no obligation on him to place the mind and the body in the same world. Indeed, the fact that minds and bodies were united actually served to reinforce Malebranche’s conviction that God *was* substantially present in the spatial world. If he had not been present to *both* realms of being, in whatever manner happened to be appropriate to each one, he would not have been in a position to bridge the gulf between the two in order to establish the links wherein this union consisted. Thus, just after the passage where Theodore had argued against Aristes that, since God acts in a certain place, he himself must be present there, he proceeded to discuss the case of the soul: ‘Thus, God is everywhere in the world and beyond. But the soul is nowhere in bodies. It does not know in the brain, as you imagine. It knows in the intelligible

⁵⁵ Poiret 1990, p. 151 (bk. 1, ch. 6, §6). More himself examined and criticised Poiret in *Divine Dialogues*, pp. 530–534 (scholia to dial. 1, §§32–35). For more on Poiret’s position in all this, see Reid 2008, pp. 110–113.

substance of the divine Word, although it knows in God only because of what happens in a certain portion of matter called the brain. It moves them only because He who by His immensity is everywhere executes the impotent desires of His creatures by His power.⁵⁶

Now, although there was a lot of occasionalism going around among the Cartesians, it was not universally embraced by them. Some, at least, of the Cartesians believed that the reciprocal interaction that was involved in mind-body union really did include an efficient causal influence of the mind on the body. For instance, Le Grand seems to have been perfectly content to allow such an influence. And yet he too would also straightforwardly state that the human mind 'may only be in a place by its *Operations*',⁵⁷ and he also observed, concerning angels, 'that their *presence* is only determinable by their *Operations*. And this seems to follow from the Nature of an *Intellectual Creature*.'⁵⁸

And what of Descartes himself? Notwithstanding a few intriguing hints here and there, the weight of evidence seems to tell against a fully occasionalist reading of Descartes. In his case, it is true, he tended to shy away from the task of setting out the precise nature of the relationship between mind and body in full detail, at least in his published works. As he explained in letters, although he was every bit as committed to the doctrine of mind-body union as he was to that of their real distinction, he had felt that the more urgent and important rhetorical goal was to focus his readers' attention on the latter point, and hence he did not wish to distract them with too much discussion of the first.⁵⁹ Within the relative privacy of this correspondence, however, he would occasionally allow himself to be a bit more candid about the nature of mind-body union—and yet, even there, he hardly ever touched upon the question of whether and how the mind was *present to* (as opposed to: *united with*) its body. But there are passages that are at least suggestive, especially in the letters to More that we have already been considering.

Let us recall the second of his replies to More. Responding to More's comments on the omnipresence of God, Descartes began by setting out a distinction between substantial and operational presence. He then proceeded to make the crucial concession that 'in God there is no distinction between essence and power', before swiftly attempting the change the subject, expressing a certain discomfort about dealing with so abstruse a matter.⁶⁰ But the thing to note is not *that* he tried to shift the discussion, but *where* he tried to shift it, namely *towards* the case of created spirits. This passage would certainly seem to imply that Descartes felt he had a better opportunity than in the divine case to establish an operational presence for such spirits, without thereby being led into having to grant them substantial presence too.

⁵⁶ Malebranche 1997a, p. 134 (dial 8, §6).

⁵⁷ Le Grand 1694, p. 326a (bk. 1, pt. 9, ch. 3, §13);

⁵⁸ Le Grand 1694, p. 85b (bk. 1, pt. 3, ch. 7, §9).

⁵⁹ CSMK 209/AT 3:508 (Descartes to Regius, January 1642); CSMK 217–218/AT 3:664–665 (Descartes to Elizabeth, 21 May 1643).

⁶⁰ *Epistolae quatuor*, p. 85/CSMK 373/AT 5:343 (Descartes to More, 15 April 1649).

Elsewhere, Descartes sought to shed light on the nature of mind-body union by means of an analogy with the Scholastic theory of gravity or heaviness. It should be noted that Descartes' own theory of gravitation was very different, explained in terms of the mechanical influence of heavenly globules. Traditionally, however, heaviness had been understood as a real quality of a body, something intrinsic to it which, however, could not be reduced to its mechanical qualities of size, shape, solidity and motion. It was further believed that this real quality would permeate the whole of the body to which it belonged, but also that it did not possess the same form of 'parts outside parts' extension that characterised the body itself. Instead, the Schoolmen would declare that it was wholly present in each part of the body. Turning to its analogue, Descartes was happy to adopt that traditional 'whole in each part' formula to describe the nature of the mind's relation to the extension of the body to which it was united: 'This is exactly the way in which I now understand the mind to be coextensive with the body—the whole mind in the whole body and the whole mind in any one of its parts.'⁶¹ On the face of it, then, Descartes would appear not to have been a nullibist in this case either, but rather to have fallen under More's alternative heading of 'holenmerian'. However, the sentence immediately preceding this one casts such a characterisation into doubt. There, Descartes observed that, according to the Scholastic theory upon which he was basing his analogy, 'gravity, while remaining coextensive with the heavy body, could exercise all its force in any one part of that body'. Simply to say that the mind was present, whether in part or in whole, in a certain part of the body, did not in any way settle the question of whether this was to be understood as a substantial presence or merely as an operational one. And the fact that, in his explanation, Descartes alluded only to how the real quality of gravity could *exercise its force* in each part of the body might seem to suggest that he felt that this would also exhaust the nature of the mind's relationship thereto. At any rate, while this analogy clearly supports an ascription of operational presence to the mind, it also stops short of providing any evidence for the stronger ascription to it of a substantial presence. The stronger position might still have been available to Descartes, insofar as none of what he said actually ruled it out: but there is no evidence that he felt any inclination to avail himself of it, and at least some circumstantial evidence that he did not.⁶²

So let us treat More's portrayal of the Cartesians as nullibists as accurate in the case of created spirits, even in the face of the conclusion that such a portrayal was inaccurate in the case of the spirit of God himself. Can such a position really be sustained? It is possible that it can be. Certainly if one adopts an occasionalist view

⁶¹ CSM 2:298/AT 7:442 (Sixth Replies, §10). On this analogy, see the rest of CSM 2:297–299, as well as CSMK 219/AT 3:667–668 (Descartes to Elizabeth, 21 May 1643), CSMK 228/AT 3:693–694 (Descartes to Elizabeth, 28 June 1643), and CSMK 358/AT 5:222–223 (Descartes for [Arnauld], 29 July 1648).

⁶² See Rozemond 2003 for an examination of Descartes' theory of mind-body union which pays special attention to issues pertaining to holenmerianism.

of causation, there will be no inconsistency in claiming that the divine substance is everywhere (on the grounds that God acts everywhere, but could not do so unless he himself was there, substance and all), while at the same time claiming that the substance of a created spirit is nowhere (for, since it is not efficiently active at all, the parallel argument will not get off the ground).⁶³ But More (who never took any real notice of the occasionalism that only started to get properly entrenched within Cartesianism as his own career approached its twilight) was every bit as unconvinced by the nullibist thesis as it pertained to created spirits as he was in the case of God.

As far as More was concerned, precisely the same argument should hold good in the case of created spirits as in the divine case. As he told Descartes: 'I believe, indeed, that it would imply a contradiction for the power of the mind to be extended, when the mind itself is not extended at all. For the power of the mind is an intrinsic mode of the mind, and clearly not something distinct from the mind itself.'⁶⁴ Once one allows that created spirits are capable of actively animating bodies—and this, for More, was the central, defining feature of a spirit—one must allow that they can at least possess an operational presence in the spatial world. But then, if the power whereby they operate is nothing distinct from their very substance, it would seem to follow that they must possess a substantial presence too. Wherever there is an effect, it is a sure sign that a power is getting exerted. But, More would say, the substance whose power this is must itself be present there, or else it would not be in a position to use it there.

And More would never waver in this opinion. Almost a quarter of a century after his correspondence with Descartes, he would still be arguing against nullibism in precisely the same manner:

And, indeed, the operation of the soul by which it acts in the body and the soul itself, and the divine power by which God moves matter and God Himself, are together, nor can they be mutually separated from one another, not even in thought, the operation indeed from the soul, and the power from God. Therefore, if the operation of the soul is somewhere, the soul is somewhere, namely, there where the operation is: if the power of God is somewhere, God is somewhere, there, namely, where the divine power is, the latter in the individual parts of matter, the soul in the human body.⁶⁵

The notion that spirits, be they created or divine, needed to be granted a substantial presence in the spatial world was, perhaps more than any other theory, an enduring and never-modified constant in More's evolving metaphysical system.

⁶³ See Reid 2008, pp. 114–116.

⁶⁴ *Epistolae quatuor*, p. 90/AT 5:379 (More to Descartes, 23 July 1649).

⁶⁵ *Enchiridion metaphysicum*, vol. 1, p. 101 (ch. 27, §5). Also see passim throughout chs. 27 and 28 (which were extracted and translated as *The Easie, True and Genuine Notion and Explication of the Nature of a Spirit* in Glanvill's *Saducismus Triumphatus*, p. 131–188); together with the climax of the first of the *Divine Dialogues*, pp. 68–82 (dial. 1, §§31–36), as well as its scholia at pp. 530–34.

3 More and Hologenmerianism

3.1 Early Endorsement

As I already noted, nullibism was actually quite an unusual position for philosophers to adopt, throughout the history of speculation in this area. The more common position was the ‘whole in each part’ theory to which More would eventually give the name ‘hologenmerianism’. That was the position that was embraced by all of the chief influences on More’s earliest philosophical outlook. For that reason, the most natural expectation must surely be that More himself would initially have been drawn to such a theory. When More was first figuring out his juvenile philosophical system at the beginning of the 1640s—before he had even read Descartes—it would indeed have been rather remarkable if he had *not* been led by Plotinus, Ficino and the Schoolmen down this path. However, the vigour with which More sought to attack hologenmerianism alongside nullibism in his late works (especially *Divine Dialogues* and *Enchiridion metaphysicum*), and to replace both with a theory of spiritual extension that really did involve some notion of parts outside parts, has led most of the commentators to miss the fact that his earlier writings had in fact been riddled with hologenmerianism (albeit *avant la lettre*). It was not a matter of More’s having difficulty in extricating himself from a pervasive dogma. In the earlier portion of his career, he simply had no interest in casting off hologenmerianism because, as a matter of fact, he thought that the theory was entirely correct.

Those commentators on More who discuss the issues of spiritual presence and immaterial extension at all seem to fall into three main groups. Most do not really tackle hologenmerianism head-on in their discussions, either from the point of view of More’s early endorsement thereof or from the point of view of his later rejection, and are broadly content to present More as if his commitment to the extension of spirits was straightforward, unproblematic and unchanging.⁶⁶ Koyré and Burttt do at least observe that More displayed a certain indecision on this issue in the mid-1650s (specifically in the Appendix to *An Antidote Against Atheism*—we will be coming to this shortly), but they do not really go any further than that.⁶⁷ Funkenstein also alludes in passing to More’s ‘initial hesitations’ over attributing extension to God, but he does not elaborate on this point, and elsewhere writes that More’s ‘fundamental, never modified or qualified position asserted against Descartes the extended nature of spirits. The presence of spirits (and ultimately of God) in the world was not only metaphysical, qua substances, but also physical: with bodies they share dimensionality.’⁶⁸ To say that More’s position was never modified is entirely wrong. To say that the early More believed that spirits shared dimensionality with bodies is,

⁶⁶ Anderson 1933, chs. 4–5; Burttt 1932, pp. 127–142; Koyré 1957, chs. 5–6; Jammer 1969, pp. 41–48; Power 1970; Boylan 1980; Copenhaver 1980, pp. 518–521; Gabbey 1982, pp. 192–194; Funkenstein 1986, pp. 77–80.

⁶⁷ Burttt 1932, pp. 140–141; Koyré 1957, pp. 135, 137.

⁶⁸ Funkenstein 1986, pp. 79, 77 respectively.

at best, gravely misleading. Although he certainly did believe that spirits were indeed present to bodies, he did *not* think that they were spread throughout their dimensions.

To be fair, though, in many of these cases a serious discussion of holenmerianism would have taken the authors far outside their main areas of concern, and they can certainly be forgiven for not providing one. However, in the second group, we find authors who do actually volunteer to raise the issue of holenmerianism, and to address More's later arguments against it, but who make no mention of the fact—surely relevant, if holenmerianism is going to be examined at all—that More had earlier been endorsing the very position that he would later be attacking. In this group, we must include Edward Grant and Alexander Jacob.⁶⁹ Grant gently chides Koyré and Jammer for not having discussed More's attack on holenmerianism (while otherwise—quite rightly—praising their excellent work).⁷⁰ In like fashion (while otherwise praising Grant's own superb work), I do lament his own failure to discuss More's earlier endorsements of holenmerianism, for this does unfortunately lead him incorrectly—or at least misleadingly—to associate the claims about spiritual extension in the Descartes correspondence with More's later arguments.⁷¹ Jacob equally refers to More's opposition to holenmerianism: but, in the very same article, he is also content to quote not one but two of those very passages from the 1640s in which More actually gave quite explicit expressions of his own early holenmerianism.⁷² Jacob appears to be utterly oblivious to the tension he introduces.

Finally, going the other way, we find John Tull Baker, Stephen M. Fallon and Daniel Fouke. They do successfully notice More's early holenmerianism, but the point that they miss is More's subsequent shift away from this position. While Baker and Fouke do clearly lay out the bare bones of More's early holenmerianism, they do not draw sufficient attention to the contrast with his later opinions and arguments.⁷³ Fallon, to his credit, does mention both the later rejection of holenmerianism *and* the tension between this rejection and the earlier position. But these points are confined to just one sentence apiece, within a much more general discussion, where the main focus is not even More anyway, but rather John Milton.⁷⁴ As far as I have been able to find, no one has ever entered into a thorough examination of this shift in More's thought.⁷⁵

And yet More's initial holenmerianism is absolutely clear in his *Philosophicall Poems*. As a matter of fact, in the epistle preceding *Psychozoia* right at the start of

⁶⁹ Grant 1981, pp. 223–228; Jacob, *passim* throughout his various writings on More.

⁷⁰ Grant 1981, p. 399 n. 237.

⁷¹ Grant 1981, p. 223. I shall return to this point in a moment.

⁷² Jacob 1992. See p. 69 for Jacob's reference to More's anti-holenmerian arguments, and then contrast the passages quoted on p. 73 and p. 89 n. 18 (to which I shall have occasion to refer below), in which More's own holenmerianism is pretty blatant.

⁷³ Baker 1930, p. 8; Fouke 1997, pp. 185–187.

⁷⁴ Fallon 1991, pp. 76–77, 78.

⁷⁵ Unless, of course, I include my own article, Reid 2007, where some of the material of this section originally appeared.

the book, the *very first* thing that More told his reader about Ahad, AEon and Psyche, even before proceeding to explain that these constituted ‘the famous Platonicall Triad’ and were more or less equivalent to the three persons of the Christian Trinity, was that they were ‘all omnipresent in the World, after the most perfect way that humane reason can conceive of. For they are in the world all totally and at once every where.’⁷⁶ Similarly, when More presented his symbol of the Cone, he emphasised that, whereas both the cusp and the base of this Cone were ubiquitous, the manner of their ubiquity was very different in the two cases. The base of the Cone signified God (Ahad, The One), and he was wholly present everywhere: ‘For in each Atom of the matter wide / The totall Deity doth entirely won, / His infinite presence doth therein reside’.⁷⁷ God did not merely dwell (‘won’, archaically) in each atom: the *total* deity dwelt entirely in each. He was, again, not ‘part here part there’, but was ‘every whit / In every point.’⁷⁸ By contrast, the very thing that ruled out an identification between the cusp—Hyle—and God was precisely that the former was ‘not totall every where’.⁷⁹ More pointed out that, if one refused to admit a difference between these two modes of ubiquity, and allowed God to be spread out in the same way that Hyle and corporeal matter were, partly here and partly there—regardless of whether or not one tried to insist that these parts were nevertheless inseparable from one another—it would be tantamount to an admission of many gods, each with its own circumscribed sphere of influence. As More put it, ‘if we forsake this apprehension of the omnipraesency of *Ahad*, God and all things else will prove mere bodies. And then must God, if he can, make himself up in severall parcells and pieces. And God administring the affairs of the Earth, will scarce know what God doth in *Saturn*, or at least many millions of miles distant.’⁸⁰ One and the same integral substance needed to be present at the Earth and at Saturn, and not a different spatial portion thereof.

Elsewhere, More adopted the same account of the presence of particular, created spirits. In the last section, we took note of More’s commitment to the notion that the human soul really was present in its body. But was it nevertheless possible that the soul’s presence might, despite its indivisibility, have been a matter of its being spread out, partly here and partly there? More’s answer was emphatically negative:

Therefore one spirit goes
Through all this bulk, not by extension
But by a totall *Self-reduplication*....
And present is in each part totally
Of this her body.⁸¹

⁷⁶ *The Complete Poems*, p. 10a (To the Reader, upon the first Canto of *Psychozoia*).

⁷⁷ *The Complete Poems*, p. 97b (*Democritus Platonissans*, st. 69).

⁷⁸ *The Complete Poems*, p. 64a (*Psychathanasia*, bk. 2, cant. 3, st. 10).

⁷⁹ *The Complete Poems*, p. 97a (*Democritus Platonissans*, st. 67).

⁸⁰ *The Complete Poems*, p. 156b (notes upon *The Infinity of Worlds*, sts. 8 and 66). Grosart’s edition follows the misprint in the 1647 edition of the *Philosophical Poems* wherein these notes first appeared, which was only corrected in the errata list at the rear of that volume. The printed text says ‘omnipotency’ where it was supposed to say ‘omnipraesency.’

⁸¹ *The Complete Poems*, p. 62a, b (*Psychathanasia*, bk. 2, cant. 2, sts. 33, 37).

Far from being partly in the head and partly in the toe—far from being *extended*—the indivisible soul was able to duplicate itself totally, so as to be wholly present in different places at once, and thus in each individual part of its body.

Alexander Jacob has sought to connect this notion of ‘self-reduplication’ up with another notion that belongs to a later period of More’s career, namely that of ‘essential spissitude’.⁸² It is true that More did use the same *word* in both contexts: but he used it to mean entirely different things. In *The Immortality of the Soul*, More understood the ‘reduplication’ of a spirit in terms of its penetrating itself in such a way that two portions of its extension, having formerly been in different (but adjacent) places, would come to occupy one and the same place (and thereby double the ‘essential spissitude’ of that place, i.e. the density of the spiritual substance contained therein).⁸³ In the poems, by contrast, ‘reduplication’ did not mean the existence of *different parts* of a spirit in the *same* place. Just the opposite: it meant the existence of the *whole* of a spirit in *different* places. In *The Interpretation Generall* to his poems, More himself offered a definition for the term ‘reduplicative’ in this second, earlier sense: ‘That is reduplicative, which is not onely in this point, but also in another, having a kind of circumscribed ubiquity... as the soul is said to be in the body *tota in toto & tota in qualibet parte*’.⁸⁴

Unfortunately, this conflation is entirely characteristic of Jacob’s commentaries on More more generally, wherein he has consistently sought to project all of More’s later ideas back onto these early poems, a place where they really do not belong.⁸⁵ It is true that there were certain points of continuity between the doctrines expressed in More’s juvenile poems and those of his later works; and, even to the end of his life, he was not averse to referring his readers back to the poems when he felt that he had expressed something especially well therein. But he also warned his readers that he had indeed come to change his mind on some issues. ‘But launching out so very early into so deep a Theory,’ he wrote in general terms in 1660, ‘I think it not amiss to advertise the Reader that he would do well, where he finds a difference in my discoveries, to interpret, and also rectifie if need be, my First thoughts by my

⁸² See Jacob 1985, p. 511, and the introduction to his edition of More’s *A Platonick Song of the Soul* (Lewisburg: Bucknell University Press, 1998), pp. 55, 88.

⁸³ *The Immortality of the Soul*, p. 6 (bk. 1, ch. 2, §11).

⁸⁴ *The Complete Poems*, p. 164a–b (*The Interpretation Generall*: ‘Reduplicative’).

⁸⁵ Jacob claims that ‘More’s views on spirit and matter are most clearly presented in his first major philosophical work, *A Platonick Song of the Soul*’ (Jacob 1991, p. 103); or, again, that ‘More’s views on spirit and matter are most clearly studied in his early philosophical poem, *A Platonick Song of the Soul*.’ (Jacob 1992, p. 70). In the introductions to his editions of *The Immortality of the Soul* and *Enchiridion metaphysicum*, he purports to be providing with the reader with elucidations of the principles contained therein: and yet what we actually get are long exegeses of the poems. Eight out of the twenty two pages of Jacob’s so-called ‘Analysis of the *Enchiridium* [sic] *Metaphysicum*’ in fact offer an analysis of the poems instead. (*Enchiridion metaphysicum*—i.e. *Manual of Metaphysics*, 1995 edition—vol. 1, pp. xxi–xxviii). In the case of *The Immortality of the Soul*, this number rises to a full twenty pages. (*The Immortality of the Soul*, ed. Jacob (Dordrecht: Martinus Nijhoff, 1987), pp. xi–xxx). But More’s opinions had changed! Although Jacob’s translations of More’s Latin works are certainly useful, his understanding of the philosophy itself has repeatedly proved itself to be exceedingly weak.

Second, my *Philosophick Poems* and whatever is writ in that Volume, by my later and better concocted Prose.⁸⁶ And then, in the 1679 *Opera*, we find explicit testimony, direct from the horse's mouth, that this was one such issue. In the *Praefatio generalissima*, More took the occasion to reflect on his own earlier writings, and he now actually named a couple of issues upon which he had changed his mind since writing the poems. One of these was 'actinism', the doctrine that substances radiate from God as natural emanations, rather than being creatures of his deliberate will. But the other was specifically named as holenmerianism: 'it is owing to this use of reason that I now so strongly reject Hologenmerianism, and Actinism or the dogma of the irradiation of all substances, the traces of both of which are clearly there to be discovered in the remarks of the Poems.'⁸⁷ Jacob and other commentators have certainly recognised the later rejection of this theory (which we will come to shortly). But it seems that its traces in the poems cannot have been as clear as More imagined, for they have been all too frequently missed.

After More's philosophical poems of 1642–1647, we again find this same doctrine recurring in his 1648–1649 correspondence with Descartes. In the examination of nullibism above, I quoted More's argument against that doctrine, from the idea that God could not act on matter unless he 'touched' it. Expanding now on the brief extract quoted there, what More actually told Descartes is as follows:

It seems to me that God is an extended being, as are angels and, indeed, anything that subsists by itself, so that extension seems to be included within the same boundaries as the absolute essence of things, though it can nevertheless vary according to the variety of such essences. Now, for my part, I consider it to be evident that God is extended in his own manner from this: that he is certainly omnipresent, and he intimately occupies both the entire mundane machine and each individual particle thereof. For how could he impress motion onto matter, as he once did, and as you claim he still does even now, unless he closely touched the matter of the universe, or at least had once touched it? Which he certainly could never have done, if he was not present everywhere, and occupied each individual place. God is therefore extended or expanded in his own manner, and thus is an extended being.⁸⁸

So More was content to tell Descartes that God had to be extended *in some manner*. It is easy to see why this remark might, indeed, confuse some commentators, and lead them to suppose that More was ascribing just the same sort of extension to God as he would later be giving him. Copenhaver, Boylan and Power, for instance, all point to these 1640's remarks of More's, but all of them wrongly attempt to explicate this claim in terms of More's *later* views on God and extension, as these were expressed in works like 1659's *The Immortality of the Soul* and 1671's *Enchiridion metaphysicum*.⁸⁹ Equally, Grant refers to More's 'well known' claim, from the correspondence with Descartes, that God had to be extended in some manner: but

⁸⁶ *The Grand Mystery of Godliness* (1666 edition), p. vi (To the Reader, §4).

⁸⁷ *Opera omnia*, vol. 2.1, p. viii (*Praefatio generalissima*, §11).

⁸⁸ *Epistolae quatuor*, p. 62/AT 5:238–239 (More to Descartes, 11 December 1648).

⁸⁹ Power 1970, pp. 289–290; Boylan 1980, pp. 398–400; Copenhaver 1980, pp. 518–521. See also Tulloch 1874, vol. 2, p. 381.

he too goes on wrongly to base his elucidation of this claim on material drawn from *Enchiridion metaphysicum*. To his credit, Grant does actually name the 1660's as having been the decade in which More took the 'incredibly bold and unheard-of step' of treating God as a three-dimensional being.⁹⁰ But then, in the very next paragraph, he undermines this suggestion by specifically singling out the anti-holenmerian arguments of 1671's *Enchiridion metaphysicum* to take centre stage in his elucidation of what More had been telling Descartes in the 1640s.⁹¹

If what we want to know is how More conceived God's 'own manner' of being extended during this period, what we surely ought to be studying are the contemporary texts themselves, not material that was written more than two decades later. For, notwithstanding More's liberal use of the term 'extended' in this passage—comparable to Bayle's in the passage quoted in §1 above (p. 145)—what we find when we look a bit more closely at this correspondence is that this so-called extension did *not* amount to God's being spread out with parts outside parts, even with the penetrable and indiscernible parts that More would later be ascribing to him. Instead, it referred *merely* to his being substantially present in the spatial world. The mode of this presence was still being explained, just as in the poems, in terms of his being whole in the whole and whole in each part.

There is already a hint of this in this very passage, where More explained that God 'intimately occupies both the entire mundane machine and each individual particle thereof'. This was certainly close to the traditional Scholastic formula: but it was not quite there yet, for More did not explicitly say on this occasion that God was *whole* in the whole universe and *whole* in each of its parts. He saved that more emphatic and less ambiguous claim up for his next letter.

In his second letter, although More again repeated his claim that God, angels and souls possessed 'extension', he also now made it absolutely explicit that, far from involving parts outside parts, this so-called extension was really a matter of the ubiquitous repetition of the entire essence. Thus, More wrote:

since God, to the extent that the human mind grasps him, is whole everywhere, and his whole essence is present in all places or spaces, and in all points of space, it does not follow that he has parts outside parts, or, consequently, that he is divisible, although he thoroughly and intimately occupies every place, leaving no gaps.

Moreover, everyone to a man, idiots as much as philosophers, will acknowledge that God occupies each point in the world, and I myself perceive and comprehend it clearly and distinctly in my mind. Now surely he has his divine essence in just the same manner both inside and outside the world; just as, if we suppose the world enclosed by the visible heaven of stars, the centre of the divine essence and the whole of its presence will repeat itself outside the starry heaven, in the same manner as we clearly conceive it repeated and reiterated within.⁹²

God's *whole* essence, then, was present in every point of space, and the *whole* of its presence was repeated and reiterated throughout. Coming across this passage as he

⁹⁰ Grant 1981, p. 223.

⁹¹ Grant 1981, pp. 223–225.

⁹² *Epistolae quatuor*, pp. 76–77/AT 5:305 (More to Descartes, 5 March 1649).

edited the correspondence for inclusion in his 1679 *Opera* (vol. 2.2), More felt compelled to add a scholium to express his new-found displeasure with the holenmerian position that he had been embracing. ‘Of course, the bulk of philosophers speak in this way’, he wrote. ‘As for me, though, for my part I feel that, although God does not have physical parts, properly so called, it is nevertheless extremely improper to say that God can be whole everywhere.’⁹³

In short, notwithstanding his liberal and potentially misleading use of the word ‘extension’, More’s correspondence with Descartes, just like his poems, was in fact riddled with holenmerianism. A spirit was there to be understood as ‘extended’ *only* in the sense that it was substantially present throughout a (finite or infinite) region of space. But the mode of this presence was to be understood in the ‘whole in each part’ terms of the traditional holenmerian position, not in the indiscernible ‘parts outside parts’ terms that one finds in More’s own later writings. He had not yet shrugged off the influence of Plotinus and his other early mentors.⁹⁴

3.2 *Transition*

More entered the 1650s on the heels of his correspondence with Descartes, wherein he was still committed to a holenmerian theory of spiritual presence. By the end of the decade, however, although he had not yet coined the term ‘holenmerian’, the theory itself was already beginning to come under attack in his writings. In the middle of that decade—in 1653’s *An Antidote Against Atheism* and especially in its 1655 Appendix—More’s position seems to have been in transition. He does not seem to have firmly made his mind up about whether he should continue to cling to his earlier holenmerianism, or else give it up in favour of an alternative theory of spiritual presence. Most of what he wrote at this time about the presence of spirits, both created and divine, can be read in either way.

More’s favourite analogy at the time, for the manner in which a spirit could be present throughout a certain space and yet also indiscernible, drew on a comparison with an orb of light. A central luminous source, itself assumed to be indivisible, would send out rays in every direction, and would thereby produce a sphere of illumination around itself. The existence of each outer part of this sphere depended so totally on its being fed from the centre that no part of it could possibly be separated from the centre and, as it might be, trapped in a jam-jar and carried away. Similarly, More believed, a created spirit would have what he called a ‘central life’, and this

⁹³ *Epistolae quatuor*, p. 83 (scholium on More to Descartes, 5 March 1649).

⁹⁴ Just to mention one final instance of this sort of characterisation of the divine amplitude, there is also a remark to be found in More’s posthumous *A Collection of Aphorisms*, where he described God as ‘that which is *infinitely* Infinite, and *entirely* every where at once.’ (*A Collection of Aphorisms*, pp. 11–12 (pt. 1, §39)). This remark provides another piece of evidence for an early dating for these aphorisms (see above, p. 19 n. 57 and p. 83 n. 33), for it was during the 1650’s that More abandoned his juvenile holenmerianism.

would radiate a ‘secondary substance’ around itself, thereby enabling the spirit to pervade the entire body.⁹⁵ The ‘Parts of a *Spirit*’, as More observed, ‘can be no more separated, though they be dilated, than you can cut off the *Rayes* of the *Sun* by a pair of Scissors made of pellucid Crystal.’⁹⁶

But, on its own, the orb of light analogy lends itself equally well to (at least) two different readings, and it is not always so easy to pin down whether More, in the mid-1650s, was still understanding the nature of the ‘extension’ of the light, or of the spirit, as holenmerian presence, or whether he had already shifted over to an understanding of it in terms of (indiscernible) parts outside parts.

When discussing the orb of light analogy in 1655, More observed that it was actually the one and the same central point of light that was discernible throughout the whole orb.⁹⁷ Wherever one stands in the space around such a luminous source, one will receive an image of the *whole* of that source. One can think of the manner in which the source will illuminate the space as being a matter of its *repeating* itself, as an image, at each and every point. More had earlier alluded to such a propagation of images, alongside a classically holenmerian description of spiritual presence, in the definition he gave for ‘reduplicative’ in *The Interpretation Generall* to his *Philosophicall Poems*. I already quoted a short extract from this definition earlier (p. 161). Now expanding on that extract, it turns out that More’s overall conception of reduplication was actually subdivided into two distinct forms:

That is reduplicative, which is not onely in this point, but also in another, having a kind of circumscribed ubiquity, *viz.* in its own sphear. And this is either by being in that sphear omnipresent it self, as the soul is said to be in the body *tota in toto & tota in qualibet parte*; or else at least by propagation of rayes, which is the image of it self; and so are divers sensible objects *Reduplicative*, as light, colours, sounds. And I make account either of these wayes justly denominate any thing spiritual. Though the former is most properly, at least more eminently spiritual.⁹⁸

It is true, then, that More did allow that an object’s filling a certain space by means of the multiplication of the whole of itself was not quite the same thing as its filling that space by means of the multiplication of *images* of itself. Moreover, in the continuation of this 1647 passage, More speculated—though without committing himself—about whether the former ‘more eminently spiritual’ notion of reduplication might in fact pertain only to God, with created spirits enjoying merely a multiplication of images. But the crucial point to observe is that *both* of these forms of presence were still very unlike the possession of parts outside parts, even the indiscernible and penetrable parts that More would later be attributing to spirits. Even if we do concede that More’s 1655 discussions of the orb of light analogy might fall short of full-blown holenmerianism for created spirits, we are still not compelled to interpret them in terms of genuine spiritual extension.

⁹⁵ *The Immortality of the Soul*, pp. 14–21 (bk. 1, chs. 5–6).

⁹⁶ *An Antidote Against Atheism*, p. 16 (bk. 1, ch. 4, §3).

⁹⁷ See *An Antidote Against Atheism*, p. 186 (Appendix, ch. 3, §2).

⁹⁸ *The Complete Poems*, p. 164a–b (*The Interpretation Generall*, ‘Reduplicative’). See also p. 160b (‘Circulation’).

One is put in mind here of Plotinus, who also compared the presence of a soul with the propagation of visual and auditory images. Plotinus wrote:

Now the sound was diffused throughout the air not in sections but as one sound, entire at every point of that space. So with sight: if the air carries a shape impressed upon it this is one undivided whole; for, wherever there be an eye, there the shape will be grasped.... Why, then, need we hesitate to think of Soul as a thing not extended in broken contact, part for part, but omnipresent within the range of its presence, indwelling in totality at every point throughout the All?⁹⁹

Plotinus was very clear in his adherence to a holo-merian theory of the spatial presence of spiritual things, and this very passage itself indicates that this is how he was understanding the analogy with the diffusion of a visual (or auditory) image throughout a certain place. However, although it is safe to assume that this passage would have passed before More's eyes at one time or another, he did not actually cite it in his own discussion, so we should not automatically assume that he was following his master in this particular interpretation of the analogy. Moreover, since the same orb of light analogy appeared not only in *An Antidote Against Atheism* but also in *The Immortality of the Soul*, and since (as we will shortly see) More did unambiguously reject holo-merianism in the latter work, we should be on our guard against reading too much into this parallel with Plotinus with respect to the discussion in the former.¹⁰⁰ Although we do not *need* to interpret the orb of light analogy in terms of spiritual parts outside parts, the latter interpretation is still on the table.

Elsewhere in the 1655 Appendix, in response to the objection that, if a spirit is extended, it must be divisible, and this divisibility will render it incapable of sense and understanding, More wrote:

But to this I answer, If by *Extension* be meant a *Juxta-position of parts*, or placing of them one by another, as it is in *Matter*, I utterly deny that a *Spirit* is at all in this sense *extended*. But if you mean only a certain *Amplitude of presence*, that it can be at every part of so much *Matter* at once, I say it is *extended*; but that this kind of *Extension* does not imply any *divisibility* in the substance thus *extended*; for *Juxta-position of parts*, *Impenetrability* and *Divisibility* go together, and therefore where the two former are wanting, *Extension* implies not the third.¹⁰¹

In the very next paragraph, More again referred to the orb of light analogy, and how this light was also 'in some sense *extended*, yet it is truly *indivisible*, supposing the *Center* such'.

Such remarks might, again, seem to suggest that More's understanding of spiritual so-called extension at this time still made it solely a matter of the holo-merian presence of the whole of a simple substance in every part of a body at once, or at least a matter of the propagation of images of the whole of this substance. But, again, it would be

⁹⁹ Plotinus 1992, p. 598 (enn. 6, tr. 4, ch. 12).

¹⁰⁰ On the other hand, in the 1670s—by which time More's rejection of holo-merianism had become even more explicit and emphatic than it had been in *The Immortality of the Soul*—More did finally become dissatisfied with the analogy, and he urged his readers not to take it too seriously. See *An Antidote Against Atheism*, pp. 227, 231 (scholia to Appendix, ch. 3, §2, and ch. 10, §9).

¹⁰¹ *An Antidote Against Atheism*, p. 208 (Appendix, ch. 10, §9).

wrong to place too much weight upon them. More might have said that the spirit was ‘at every part of so much matter at once’, but what he did not explicitly say was that either it or its image was *wholly* present at each of these parts. We can still interpret More’s remark in terms of the spirit’s being spread out through these parts by parts of its own. His comment about how spiritual extension did not imply a juxtaposition of parts is entirely compatible *both* with his earlier position (where a spirit had no distinguishable parts to lie alongside one another), *and* with his later position (where, even though a spirit could be *conceptually* distinguished into parts, according to the various regions included within its extension, that extension still could not be regarded as *resulting out of* the juxtaposition of those merely notional parts).

So, all in all, the remarks on the spatial presence of the human soul in 1653’s *An Antidote Against Atheism* and its 1655 Appendix are inconclusive, and can be read in either way. With respect to the amplitude of the divine substance, and (related to this) the nature of space, the situation is equally inconclusive. But, in this case, More was actually rather deliberate about leaving it open. In the seventh chapter of the Appendix, as we have already had occasion to observe, More surveyed various different theories, but he declined to commit himself to any of them. He felt that the overall conclusion he desired—in this instance, that matter was not self-existent—could be equally well served by a variety of different positions, and he was content to allow his reader to pick whichever happened to appear the most preferable. The first theory was that the divine ubiquity could be understood as ‘*the Replication*, as I may so speak, of his indivisible substance, whereby he presents himself intirely every where’.¹⁰² This was clearly the holenmerian conception with which More had been working earlier. He apparently did still consider this an acceptable theory for his reader to adopt: but what is less apparent is his own level of confidence that it was actually true. Second, he shifted his attention to space and suggested: ‘That this Imagination of *Space* is not the imagination of any real thing, but only of the large and immense capacity of the potentiality of the *Matter*’.¹⁰³ This identification between space and Hyle, which we examined in Chap. 3, might not actually have presupposed holenmerianism, but it was still perfectly compatible with it. But then More offered a new account of the nature of space. On this view, far from being identified with minimally real Hyle, space ‘must of necessity be a Substance Incorporeal necessarily and eternally existent of it self: which the clearer *Idea* of a *Being absolutely perfect* will more fully and punctually inform us to be the *Self-subsisting God*’.¹⁰⁴ But space itself was certainly extended, with parts outside parts (albeit indiscerpible ones), regardless of whether it was being associated with an infinitely real God or with an infinitely unreal Hyle. For as long as More was still making the latter identification, he was under no obligation to project those parts onto God, whose amplitude could still be understood in terms of the ubiquitous replication of his whole substance. By contrast, when space did eventually come to be associated with God himself—as it more firmly would be in More’s later

¹⁰² *An Antidote Against Atheism*, p. 199 (Appendix, ch. 7, §1).

¹⁰³ *An Antidote Against Atheism*, p. 200 (Appendix, ch. 7, §3).

¹⁰⁴ *An Antidote Against Atheism*, p. 201 (Appendix, ch. 7, §6).

phase—then he would naturally inherit whatever parts it might happen to possess in its own right. These might still be indiscernible, notional parts, befitting a spiritual substance: but outright holenmerianism would be ruled out. Now, the fact that the identification between space and Hyle was still on the table, not merely in this chapter from the 1655 Appendix to *An Antidote Against Atheism*, but even seven years later in the *Appendix to the Defence of the Philosophick Cabbala*, does show that More could not yet have been firmly committed to such an identification between space and God (or his amplitude). But he was at least beginning to toy with the idea.

The overall impression one gets from this 1655 Appendix is that More was undecided on the issue of spiritual presence, both for created spirits and for God. He seems to have had one foot still in the holenmerianism of his youth and the other in the bona fide spiritual extension of his later writings. By the time More wrote *The Immortality of the Soul* at end of the decade, however, he had finally completed his full renunciation of the holenmerian principles that had been informing his metaphysics in the 1640s, and he was now quite confident that an extension truly worthy of that name could indeed be ascribed both to God and to created spirits. It is quite telling that, when More (in the Preface General to *A Collection of Several Philosophical Writings*) sought to answer the charge that he had ‘admitted a kind of Extension in the nature of a Spirit’, he indicated that this objection had been raised specifically against *The Immortality of the Soul*.¹⁰⁵ It had apparently *not* been levelled against his correspondence with Descartes, or *An Antidote Against Atheism*, or its Appendix, or any of the other pre-1659 texts collected in that volume. It really was a new position that More was unveiling in 1659.

3.3 Refutation

After the Appendix to *An Antidote Against Atheism* in 1655, More took a little break from publishing on serious metaphysical issues. (*Enthusiasmus Triumphatus* appeared in 1656, but this was more concerned with religious epistemology and psychology). His next offering, *The Immortality of the Soul*, would not appear until 1659, and it seems to have been at some point in those intervening four years that a new threat first began to appear on More’s radar: namely, the materialist atheism (as he saw it) of Thomas Hobbes. Hobbes’s *Leviathan* had already appeared in 1651—indeed, its author had been active on the philosophical scene for some considerable time before that—but there is no evidence that More took any real notice of him to begin with. It seems reasonable to presume that More would have perused Hobbes’s objections to Descartes’ *Meditations*: but, of course, those had more to do with Descartes’ opinions than with Hobbes’s own. Hobbes’s name and his more idiosyncratic and radical ideas are quite absent from More’s

¹⁰⁵ *A Collection of Several Philosophical Writings*, The Preface General, p. xii (§12).

own writings before 1659: but then large parts of *The Immortality of the Soul* and subsequent works would be constructed as direct responses to Hobbes.¹⁰⁶

On the issue that currently concerns us, Hobbes disparagingly criticised the holoemerian theory of the Schoolmen. But Hobbes went further: not only did he declare that traditional view to be absurd, but he endeavoured to use that absurdity as ammunition in his broader campaign to undermine the belief that immaterial spirits really existed at all. ‘And in particular’, wrote Hobbes in *Leviathan*,

of the essence of a man, which (they say) is his soul, they affirm it, to be all of it in his little finger, and all of it in every other part (how small soever) of his body; and yet no more soul in the whole body than in any one of those parts. Can any man think that God is served with such absurdities? And yet all this is necessary to believe, to those that will believe the existence of an incorporeal soul, separated from the body.¹⁰⁷

More quoted this passage in *The Immortality of the Soul*, and it served as the immediate stimulus for his first public attack on holoemerianism.¹⁰⁸ Indeed, it might conceivably have been as a direct result of More’s reading and reflecting on this very passage from Hobbes that his own mature position first properly began to crystallise in his mind. In 1655, although More might have been beginning to have some doubts about the validity of the holoemerian account of spiritual presence, and opted to offer it to his reader as just one out of a variety of available candidates, he also does not seem to have found anything seriously troubling about it. Even if it turned out to be just a foolish eccentricity of the Schools, it was nevertheless a benign one. After More read *Leviathan*, however, he recognised that this doctrine was actually in danger of doing serious injury to the reputation of spiritualism in general, and threatening to bring about a rise in materialism. If a spirit was going to have to be like *that*, the materialists maintained, then it would surely be far more reasonable not to believe in any such things at all. It thus suddenly became extremely important for More either to provide the theory with a rigorous defence against Hobbes’s charge of absurdity, or else to distance himself from any association with it. But More decided that, as a matter of fact, Hobbes had hit the nail on the head, and the theory was indeed indefensible. He was thus forced down the latter path. In order to preserve belief in the reality of spirits, it was necessary for him to put some clear water between himself and the holoemerians with regard to the manner of their presence. That theory of spirit, he realised, was just too easy a target for the pot-shots of his opponents.

And so it was in this work that More first began to denounce holoemerianism. Although he did still continue to employ the same ‘orb of light’ analogy that he had earlier presented in *An Antidote Against Atheism*, his other remarks now made it

¹⁰⁶ I wholly reject Coudert’s unsubstantiated suggestion that ‘More’s *An Antidote Against Atheism* (1652) was written in response to Hobbes’ *Leviathan* and dealt directly with Hobbes’ natural explanations for both spirits and miracles.’ Coudert 1990, pp. 118–119, at 118.

¹⁰⁷ Hobbes 1994, p. 461 (pt. 4, ch. 46, §19).

¹⁰⁸ *The Immortality of the Soul*, p. 35 (bk. 1, ch. 9, §10).

abundantly clear that one of the possible interpretations had been firmly ruled out. He did not, however, acknowledge the clear adherence to holenmerianism in his own earlier writings. Instead, he merely referred to the ‘mad Jingle’ and ‘these wild intricacies’ of the ‘heedless Schools’, calling the holenmerian theory a ‘Scholastick Riddle, which, I must confess, seems to verge too near to profound Non-sense, That the Soul of man is *tota in toto*, and *tota in qualibet parte corporis*.’¹⁰⁹ But, as for Hobbes’s concern that the inherent absurdity of the nature of a spirit’s spatial presence made a belief in the existence of such a spirit untenable, More pointed out that Hobbes’s objection was based on a detail that should never have been admitted into the notion of a spirit in the first place. An objection to that detail, therefore, should do nothing to undermine the intelligibility of the true notion of a spirit. As far as More was concerned, it was enough to define a spirit as a penetrable and indiscernible substance, without then proceeding to add any superfluous ‘AEnigmaticall flourishes’ to that basic—and ‘very well intelligible’—notion.¹¹⁰

Admittedly, More did not here go much beyond simply declaring the holenmerian position to be incorrect. His rhetorical purpose at this point was merely to deflect Hobbes’s argument, which he felt he could adequately do without launching into a thorough critique of holenmerianism. But, shortly afterwards, we do begin to find specific objections to the coherence of that position. In the Preface General to 1662’s *A Collection of Several Philosophical Writings*, More again remarked that it was ‘a mere chiming contradiction’ that the soul or anything else could be ‘*Totum in toto*, and *totum in qualibet parte*’. If the soul was wholly in one place, as he now explained, there would quite simply be *none left* to be present, whether wholly or partly, in another place distant from the first. Besides which, he continued, the supposition that the whole of a spirit was present in every point entailed that the amplitude of that whole was no larger than the vanishingly small point wherein it was entirely contained—‘Which is intolerable, apply’d to the Deity, and ridiculous in every thing else’. More concluded that, ‘it being so mathematically demonstrable that there is that which is properly called *Spirit*, and that no Being at all can be *totally present* in distant points or parts of Matter at once, it does unavoidably follow that a Spirit is in some sort extended.’¹¹¹

Later in the decade, we see another denunciation of holenmerianism in a section of 1668’s *Divine Dialogues* entitled ‘The false Notion of a *Spirit*’. In this section, the materialist Hylobares followed Hobbes in attempting to show that the very notion of a spirit is self-contradictory: ‘that the Spirit of man, which we usually call his Soul, is wholly, without flitting, in his Toe, and wholly in his Head, at once? If the whole Soul be in the Toe, there is nothing left to be in the Head. Therefore the Notion of a Spirit is perfectly impossible: or else all things are alike true: for nothing seems more impossible than this.’ In response, Philotheus

¹⁰⁹ *The Immortality of the Soul*, p. 39 (bk. 1, ch. 10, §8).

¹¹⁰ *Ibid.*

¹¹¹ *A Collection of Several Philosophical Writings*, The Preface General, p. xiii (§12).

acknowledged the contradiction, but he suggested that this Scholastic definition of a spirit should be rejected for that very reason, and that ‘their rash description of a Spirit ought to be no prejudice to the truth of its Existence’.¹¹²

Three years later, in 1671’s *Enchiridion metaphysicum*, More would develop these arguments at greater length in a chapter entirely devoted to a joint refutation of holenmerianism and nullibism. By placing the soul wholly in the whole *and* wholly in each part of the body, More felt that the holenmerians were making ‘one and the same thing many thousands of times greater or less than itself at the same time, which is absolutely impossible’.¹¹³ Equally impossible was the notion that something should be entirely outside itself, which would also seem to follow from holenmerianism. Perhaps it was just about conceivable that a ‘metaphysical monad’ (‘that is, a spiritual substance, not exceeding the amplitude of a physical monad’¹¹⁴) might be capable of flitting about from one part of the body to another. But this would require it to move with such a ‘stupendous velocity by which it may be carried in one single moment through all the parts of the body, and so be fully present to them’, which was scarcely a plausible hypothesis in the case of the human soul, and was still less reasonable with respect to the infinite divine spirit.¹¹⁵ Further, this view would render the amplitude of a spirit no greater than that of a single physical point, and More again complained about that notion that, ‘if it be referred to some created spirit, it cannot not appear clearly ridiculous; if, indeed, to the majesty and amplitude of the divine numen, it is plainly intolerable, not to say extremely reproachful and blasphemous.’¹¹⁶ In any case, More felt, the holenmerian doctrine of spiritual presence had been misguided in its original construction. It had been developed specifically in order to avoid the problem of rendering spirits susceptible to division into several parts, which might be thought to arise if extension in the ‘parts outside parts’ sense was going to be ascribed to them. But, replied More, to the extent that the ascription of extension to a spirit really would entail its divisibility into several parts—which he now denied anyway—the problem for a holenmerian theory would merely shift to one of rendering spirits susceptible to division into several totalities.¹¹⁷ That would scarcely suit the essential unity of spiritual substances any better.

Of course, the holenmerians could just respond that these supposed several totalities were actually all numerically identical with one another, and hence not ‘several’ at all. They could complain that the amplitude of the divine substance was not to be understood as the minute extension of a physical point wherein it could totally reside, or indeed understood in terms of extension at all, but rather as the substance’s

¹¹² *Divine Dialogues*, p. 47 (dial. 1, §22).

¹¹³ *Enchiridion metaphysicum*, vol. 1, p. 109 (ch. 27, §12).

¹¹⁴ *Enchiridion metaphysicum*, vol. 1, p. 112 (ch. 27, §14).

¹¹⁵ *Enchiridion metaphysicum*, vol. 1, p. 110 (ch. 27, §12).

¹¹⁶ *Ibid.*

¹¹⁷ *Enchiridion metaphysicum*, vol. 1, pp. 110–111 (ch. 27, §13).

ubiquitous repetition throughout infinite space. They could stick to their guns and say that, although it was very true that, if a *body* was wholly present in one place, there would be none of it left to be present in another place, the same principle simply did not hold true for spirits—and that was just part of what made them so special. This, the holenmerians would say, was a *physical* rule about the nature of corporeal extension, and not the completely universal, logical rule that More made it out to be. All in all, More's actual arguments against holenmerianism have at best only some intuitive, *prima facie* force to them, and would have been unlikely to sway anyone who was seriously committed to that position. But, rightly or wrongly, More himself became personally satisfied that he could refute holenmerianism beyond all possibility of salvage.

More could—and did—still concede that God was capable, if he so chose, of exercising the whole of his *power* in a single point, 'as if he had contracted all his presence entirely to that place and were not present anywhere else'.¹¹⁸ But, although God's power could manifest itself fully in a single point, this, as far as More was concerned, in no way entailed that the *substance* to which this power belonged was either wholly or solely present therein. On the basis of More's anti-nullibist arguments, the divine substance certainly would need to be present wherever its power was exercised. But the upshot of his anti-holenmerian arguments was that it could not be wholly present in any circumscribed region, notwithstanding how it might behave there.

But then in what manner *was* it present in any given region? Having now dispatched holenmerianism alongside nullibism, More needed to come up with a new theory about how spirits might be related to the spatial world. His innovation was to find a way of allowing them to have a bona fide extension, while nevertheless preserving them from the taint of corporeality that this might be thought to bring with it. More's new theory of spiritual extension was very different from what he had had in mind in the 1640s, when he had told Descartes that God was extended 'in his own manner'. There, as we noted above, More meant *only* that God was present throughout a certain space (indeed, throughout all space). This so-called extension did not involve any parts outside parts, for More at that time was still committed to the holenmerian doctrine that the whole of the divine substance would repeat itself in each individual place. From 1659 onwards, however, More *did* attribute parts outside parts to spiritual substances, both created and divine, 'it being the very essence of whatsoever *is*, to have *Parts* or *Extension* in some measure or other'.¹¹⁹ He merely insisted that such parts would need to be necessarily inseparable from one another (and also penetrable). We will enter into a full discussion of More's mature theory of spiritual extension in the next chapter.

¹¹⁸ *Enchiridion metaphysicum*, vol. 1, p. 17 (ch. 2, §10, scholium). See also vol. 1, p. 132 (ch. 28, §20); and *Epistolae quatuor*, p. 83 (scholium, More to Descartes, 5 March 1649).

¹¹⁹ *The Immortality of the Soul*, p. iii (The Preface, §3).

3.4 *Transubstantiation*

Before we leave the issue of hohlenmerianism behind, it is worth our taking just a brief look at More's arguments against Transubstantiation—for there was an extremely close parallel between the two issues. According to the Roman Catholic doctrine, it was not merely the case that the substance of the body of Christ was miraculously transferred into the consecrated Host. The Catholics did actually believe that the *whole* of that substance could be present both in the whole of the Host and in each part thereof. If the priest was to break the bread in order to share it out between two communicants, it was believed that Christ's body would be neither doubled nor halved, but would instead exist entirely in both pieces at once. But More insisted that this was ridiculous, and the arguments he employed against this case in his theological works were almost identical with those that he was elsewhere employing in the spiritual case.

It was absurd to suggest, wrote More, that 'the Bread is so turned into a Man, that is to say, into the Man Christ, that he is entirely in every Place where this consecrated Bread seems to be, that is, in many thousands of Places at once at very large Distances: Which is as perfect a Contradiction as any can be proposed.'¹²⁰ (It is worth just noting that, on this point, More found himself in full agreement with Hobbes. Just a few paragraphs after the passage from *Leviathan*, quoted above, where Hobbes had highlighted the absurdity of spiritual hohlenmerianism, he too would additionally complain about how the Scholastic divines 'will have us believe that by the Almighty power of God one body may be at one and the same time in many places').¹²¹

In his final published work, *A Brief Discourse of the Real Presence* (1686), More pointed out that this way of existing wholly in different places at once was 'not only *supernatural* but *counter-essential* or *Asystatal*, that is, *Repugnant* to the very Being of a Body'.¹²² But he went further, and added that it was not merely repugnant to the being of a *body*, but to that of *any* finite substance whatsoever.¹²³ More elsewhere explained how this 'whole in every part' notion ran counter to the most fundamental principles of physics, metaphysics, mathematics and logic, all at once. Physically, this doctrine of the body of Christ's being wholly present in two places at once would make 'one and the same Body double to itself; which is an enormous Contradiction'. Metaphysically, it would make it both one and many: 'which again is a perfect Contradiction'. Mathematically, when the bread was broken, this doctrine would make a single part of this division equal to the whole, which would be a violation of the principle that the whole was bigger than the part. Logically,

¹²⁰ *A Modest Enquiry into the Mystery of Iniquity*, p. 484 (bk. 2, ch. 8, §19). See also p. 464 (bk. 2, ch. 4, §4).

¹²¹ Hobbes 1994, p. 462 (pt. 4, ch. 46, §23).

¹²² *A Brief Discourse of the Real Presence*, p. 21 (ch. 3, §5).

¹²³ *A Brief Discourse of the Real Presence*, pp. 21, 25, 26 (ch. 3, §§5, 8, 10).

whereas it was in the very nature of division that one should be made many, in the breaking of this miraculous bread, there would be ‘but the Division of *one* into *one* and it self, like him that for Brevity-sake divided his Text into one Part’.¹²⁴

With respect to spiritual presence, the holenmerians—be they Catholic or Protestant—would no doubt maintain that the domain of those principles should only be regarded as extending to bodies, and not to spirits at all. With respect to the presence of the body of Christ in particular, the Catholics would go even further, by suggesting that a miracle could protect even the presence of a body from succumbing to the problems that More had identified. And yet metaphysics, mathematics and logic, at the very least, would seem to be entirely general sciences. It does not seem all that unreasonable for More to suggest that it would involve a contradiction for such principles to be violated, even by divine omnipotence, and to insist that these universal principles ought to apply to spirits every bit as much as they do to bodies, and even to apply to the infinite spirit as well as to finite spirits. Even the physical argument, given how it is set up, seems like it ought to be applicable not only to bodies but to anything else that can be spatially present: it was an argument that More himself was using in his refutations of holenmerian spiritual presence.

It was quite common for Protestant authors to observe and to complain that the Catholics were ascribing to the so-called body of Christ a mode of presence which—according to the traditional view—properly pertained to spirits and not to bodies at all. To take just one example, in the course of the debate that Edward Stillingfleet had with Locke about the latter’s philosophy (in this instance, his speculations concerning the possibility of thinking matter), Stillingfleet wrote that ‘it is as impossible for Matter to think, as for a Body by Transubstantiation to be present after the manner of a Spirit; and we are as certain of one as we are of the other.’¹²⁵ More echoed this sentiment, but he took it one step further. In a particularly telling remark from *A Modest Enquiry into the Mystery of Iniquity* (1664), More observed that the doctrine of Transubstantiation first of all implied that the body of Christ ‘may be *one* Body, and yet many Bodies at once...’. That was plainly repugnant to the being of a body. But then the sentence continued: ‘... or rather no *Body*, but a *Spirit*...’. So we see that More had himself noticed the close parallel between the Catholic doctrine of the real presence of the body of Christ in the Eucharist and the holenmerian doctrine of spiritual presence which, despite its more ancient origins in such figures as his own beloved Plotinus, had at any rate been consolidated and nurtured over the centuries by Catholic Scholastic divines. For the supposed ‘body’ of Christ to have been wholly present in different places at once would, according to that doctrine, have been sufficient to lift it into the category of spirit. But then this same sentence finally concluded: ‘... or, to speak more truly, *Nothing*’.¹²⁶ More, in the

¹²⁴ *An Antidote Against Idolatry*, p. 782 (ch. 3, §§4–6). See also the defence of this passage in *A Brief Reply to a Late Answer*, pp. 117–144.

¹²⁵ Stillingfleet 1697, p. 79.

¹²⁶ *Modest Enquiry into the Mystery of Iniquity*, p. 485 (bk. 2, ch. 8, §19).

course of his ongoing battle with Roman Catholicism, rejected both Transubstantiation and holenmerianism as one. In the end, *nothing at all* could be wholly present in different places at once.

4 Time and Eternity

Before we proceed to look in more detail at More's mature theory of spiritual extension, it will be worth our saying a little about his views on time, and about how spirits in particular were related to that. More himself devoted far less attention to temporal duration than he did to spatial extension, but there is a natural parallel between the two, and he did at least have a position with respect to the former. Intriguingly, though, there was something of a disanalogy between his mature treatments of the two issues. In particular, even as he moved away from a holenmerian account of the presence of God in the spatial world, he continued to maintain an analogous position with regard to his presence in time. Although God, in More's mature theory, was not to be regarded as wholly present in any given place, he *was* to be regarded as wholly present at any given time.

Before we get there, however, we begin instead with an examination of More's views on the duration of the universe—effectively, his views on time itself.

4.1 *The Duration of the Universe*

It will be recalled that, in 1642's *Psychodia Platonica*, More had insisted upon the finiteness of the created universe, but that he was then 'roused up by a new Philosophick furie' and shifted to arguing, in 1646's *Democritus Platonissans*, for its infinity. But this infinity did not pertain merely to the extension of the universe, and to the number of separate 'worlds' contained therein: it also pertained to its duration. In the 1642 passage from *Psychathanasia* that would shortly be providing More with the immediate stimulus to present his new opinions on infinity in *Democritus Platonissans*, he had examined the query of why God did not create the world earlier than he did—indeed, why not *infinitely* earlier?¹²⁷ In response, More began by rejecting the presumption that we lowly mortals should be able to grasp God's motives, comparing this question to other equally presumptuous questions about his ways: why did he place our souls in bodies; why would he not save all mankind; why were damned souls not devoid of sense; why was the world not dissolved as soon as Adam fell? But then, tackling the question more directly, More replied with a question of his own: *could* the world have been

¹²⁷ *The Complete Poems*, p. 86a (*Psychathanasia*, bk. 3, cant. 4, st. 27).

made infinitely long ago? In 1642, he was satisfied that it could not. Anything created needed to have been created at some definite time, some finite distance from the present.

But then, by 1646, More had changed his mind, and he was now confident that the universe could indeed have emanated infinitely long ago after all:

A reall infinite matter, distinct
 And yet proceeding from the Deitie,
 Although with different form as then untinct,
 Has ever been from all Eternity....
 Wherefore at once from all eternity
 The infinite number of these Worlds He made
 And will conserve to all infinitie,
 And still drive on their ever-moving trade.¹²⁸

More's new philosophical fury persuaded him that there was no contradiction after all in the universe's having existed forever, proceeding indeed from God, but without there ever having been a particular temporal moment of creation. Equally, it would continue to exist forever more, permanently conserved in being by God. Although the atoms of physical matter would certainly change their places, none of them would ever cease to exist. Just as More imagined other earths laid out in immense space, orbiting the distant stars as so many suns, and populated by men much as our own Earth is, he also imagined other earths that existed *before* this one, populated with the descendants of other Adams, each one enduring until it was destroyed in a great conflagration and was transformed into a comet.¹²⁹ More felt that this notion of infinite worlds, temporally successive as well as spatially spread out, provided clear evidence of the majesty of the goodness and power of God. As long as there was no contradiction in the universe's being infinite and eternal, it would better suit God's infinite fecundity for it actually to be so. In 1646, More decided that there was indeed no such contradiction, and accordingly he insisted upon both infinite magnitude and infinite duration for the universe.

Later on, however, he drew back from both assertions, partly reverting to his original 1642 views but also modifying his position in a new way. More argued in the *Divine Dialogues* that the universe must have had a definite temporal beginning, and a fuller treatment of the issue appeared three years later in *Enchiridion metaphysicum*.¹³⁰ Even there, though, the soundness of his proofs does still seem to fall short of convincing demonstration.

¹²⁸ *The Complete Poems*, p. 97a–b (*Democritus Platonissans*, sts. 68, 70).

¹²⁹ *The Complete Poems*, pp. 98a–99b (*Democritus Platonissans*, sts. 76–93). More would subsequently reject the notion that a planet could become a comet: see *Two Choice and Useful Treatises*, second part, pp. 141–142 (*Annotations upon Lux Orientalis*, upon ch. 14, pag. 141).

¹³⁰ For the former treatment, see *Divine Dialogues*, pp. 276–282 (dial. 3, §35); see also pp. 30–37 (dial. 1, §§15–17); pp. 557–559 (scholium to dial. 3, supplement, §44). For the treatment in *Enchiridion metaphysicum*, see what follows. Also compare *An Antidote Against Atheism*, pp. 221–222 (Appendix, ch. 13, §4).

More observed that the various moments that collectively constitute a successive duration are to be classified, at any given moment, into three groups: past, present and future. These groups are related to one another, he went on, by the fact that any moment which is now past must once have been present. It follows from this, he claimed, that there must have been some time when all moments, except just one, were future. And this (felt More) is an adequate proof that no successive duration could have been running forever, but that it must have had a definite starting point.¹³¹ But this argument, it has to be said, is pretty feeble. Somebody who believes that a successive duration has been running forever will happily agree with the first premise, that every moment that is now past must once have been present, but will simply deny that the conclusion follows from this. The *whole point* about an infinite past is that you can take any past moment you like, contemplate the time when that one was present, and identify a further moment which, even then, was already past.

In a scholium, More repeated his argument in a syllogistic form:

If all past moments, of any succession whatsoever, have been present at some time, then all except at least one were at some time to be in the future.

But all past moments of any succession whatsoever have at some time been present. Therefore all except at least one were at some time to be in the future, and that very succession then did not last one moment longer, and therefore was not infinite *a parte ante*.... [N]either the proposition nor the assumption can be denied by any wise man if he would consult the innermost faculties of his mind.¹³²

The real flaw in the argument seems to lie in a confusion in the scope of the quantifiers. It is quite true that, for all moments m , with the possible exception of one, there exists a time t , such that m was future at t . But that is not what More needs to get his argument to work. That principle is equally compatible with a finite or an infinite past. On the former hypothesis, there will be one exception to the universal quantification; on the latter, there will be none: but that will be the only difference. The principle that More needs is rather that there exists a time t such that, for all moments m , with the possible exception of one (i.e. t itself), m was future at t . But he has said nothing whatsoever to justify such a principle.

Rightly concerned that his reader might consider this argument 'to be suspect of excessive subtlety and... think himself circumvented or trapped by some unforeseen sophistry', More then proceeded to supplement it with additional arguments to the same general end.¹³³ For instance, he pointed out that it was true of all animals that first they lived and then they died. Their lives would precede their deaths temporally. But, he claimed, it followed from this that there was some time when no animal had yet died. He further claimed that such a space of time could not be infinite. Hence, there was a commencement to the lives of animals, and a first generation thereof from which all subsequent generations would ultimately spring.

¹³¹ *Enchiridion metaphysicum*, vol. 1, p. 82 (ch. 10, §2).

¹³² *Enchiridion metaphysicum*, vol. 1, p. 91 (ch. 10, §2, scholium).

¹³³ *Enchiridion metaphysicum*, vol. 1, p. 83 (ch. 10, §3).

But this argument is as weak as the first, if not more so. From the fact that each individual animal's life must precede its own death, it simply does not follow that some life or other must precede all deaths. If the succession of animals has been running forever, the premise could still be true, but the conclusion would be false, because the life of every animal would yet have been preceded by the death of some *other* animal.¹³⁴ Moreover, even if there had been an initial period of time during which no animal had yet died, More still does not seem to have any solid, logical grounds for rejecting the possibility that this period of time might have been infinite. His conclusion, that there must have been a definite temporal commencement to the generations of animals, remains unproven.

More continued with the suggestion that, even supposing that the world had emanated from God infinitely long ago, it must still have come into being in some particular state or other. 'The sun emanating was in a certain sign, the moon in some definite aspect of the sun, cows emanated either lowing or mute, men either seated or standing or moving, or dancing and jumping.'¹³⁵ Now, it was plain that the state of the world could—and did—change over time. A lowing cow would soon enough stop lowing, and the finite duration of any such change would need to have both a beginning and an end in order to be finite. But then, either the sequence of such changes had only recently commenced, and there had been no changes at all in the world for an infinite period between its initial emanation and that recent commencement, or else the emanation (or creation) of the world must itself have had a definite date, which could be measured back from the present by traversing a finite number of changes. But More could not bring himself to accept the former hypothesis—which, in any case, would have meant that the familiar, successive world that we now inhabit did indeed have a recent beginning, notwithstanding the eternity of its static alleged precursor—and so he once more drew the latter conclusion. But the problem is that, although More was quite right to insist that the world, at any given moment, had to be in a certain, definite state, he was begging the question in supposing that the *first* state of the world must have had such a definite character, because the notion that the world had always existed amounted to a denial that it had any first state at all. The assertors of the everlastingness of the world were not claiming that the initial state of the Sun did not place it in any particular sign: instead, they were denying that there was any such thing as the initial state of the Sun. Their hypothesis was that there was an infinite succession of changes of state, running back from the present, each of which did indeed have a definite temporal commencement, but one that was preceded by some further change of state from some still earlier temporal starting point.

Nevertheless, rightly or wrongly, More himself was now satisfied that any successive duration did need to have some definite temporal starting point. On the other hand, he did not think that it likewise needed to have some definite end point. One might suppose that, if the above arguments were good ones, then, just by substituting

¹³⁴ More considers and (unconvincingly) attempts to answer this objection at *Enchiridion metaphysicum*, vol. 1, pp. 94–95 (ch. 10, §3, scholium).

¹³⁵ *Enchiridion metaphysicum*, vol. 1, p. 83 (ch. 10, §4).

the word ‘future’ for ‘past’ and so on as appropriate, one would equally well be able to prove that all successions ultimately needed to draw to a close, and there needed to be some definite final state of the world. An unnamed correspondent did actually raise this very suggestion with More himself, and More replied in a scholium to the chapter of *Enchiridion metaphysicum* that we have been following. The correspondent had compared the case of an infinite succession *a parte ante* with the case of an infinite succession *a parte post*, and had written:

What you would raise in that first is seen however to justly militate against this latter. To be sure, if I had said, ‘No alterations in this succession of which I have now spoken are to be in the future which were not at some time present, etc.’, it would be easy to run through the entire thread of your argument in that way.... Now indeed nothing is to be in the future which will not at some time be present. If, however, everything will be present at some time, duration itself would finally stop. Since, in this case, outside every present event (one indeed after the other) there is not another which succeeds it.¹³⁶

This correspondent had actually been convinced by More’s arguments against an infinite succession *a parte ante*, but he did not want to be led inadvertently into a denial of an infinite succession *a parte post* (thereby losing, for instance, genuine immortality for the soul), and so he sought from More an explanation of why the arguments should work in one direction and not in the other. More acknowledged the gravity of the query and he endeavoured to provide such an explanation. The central basis for the distinction he attempted to demonstrate, between the two directions of time, was the notion that the future is open in a way in which the past is closed.

More appealed to Aristotle, and his notion of (in More’s words) a ‘future of such a kind that, although it be future, it can however be that it never exists. All futurity, therefore, does not necessarily suppose a thing in fact to be, but that it can be, or is in potency.’¹³⁷ More seems to have had in mind Aristotle’s discussion of future contingents (such as his celebrated sea battle) from the ninth chapter of *De interpretatione*. He had earlier discussed this topic in *The Immortality of the Soul*, where his target had been Hobbes’s determinism. Throughout his life, More was firmly committed to a strongly libertarian doctrine of the freedom of the will. He had still been a child at Eton when he first shrugged off the Calvinist determinism he had inherited from his father.¹³⁸ He regarded free will as absolutely essential to morality,¹³⁹ and he viewed ‘that dark *Dogma* about Predestination’ to be one of ‘the badges of the Kingdom of Darkness, rather than of the Kingdom of God.’¹⁴⁰ In *The Immortality of the Soul*, and again in *Enchiridion ethicum*, More mounted a detailed defence of libertarian free will against determinism in general, and against the arguments of

¹³⁶ More’s correspondent, as quoted in *Enchiridion metaphysicum*, vol. 1, pp. 90–91 (ch. 10, §2, scholium).

¹³⁷ *Enchiridion metaphysicum*, vol. 1, p. 93 (ch. 10, §2, scholium).

¹³⁸ See More’s own autobiographical sketch in the *Praefatio generalissima* to his *Opera omnia*, vol. 2.1, pp. v–vi (§7); translated in Ward 2000, pp. 15–16.

¹³⁹ See *The Complete Poems*, p. 49b (*Psychathanasia*, bk. 1, cant. 2, st. 38).

¹⁴⁰ *Divine Dialogues*, p. 324 (dial 4, §17).

Hobbes in particular.¹⁴¹ And it was in the course of this discussion that More first addressed the issue of future contingents.

In §34 of Hobbes's treatise *Of Liberty and Necessity* (which was More's immediate source), Hobbes had first observed that, of some future event *A* (as it might be, that it should rain tomorrow, or that there should be a sea battle), it was necessary that either *A* or not-*A* should come to pass. More was happy to agree with this. But Hobbes then inferred that it was either necessary that *A* should come to pass, or else necessary that not-*A* should do so. Either way, there was no room for contingency, and hence no room for genuine liberty. It was this inference that More found objectionable. Hobbes noted that, according to the libertarians, 'one of them is necessary yet neither of them is necessary', or that 'neither of them is true *determinate*, but *indeterminate*', and he mocked such a distinction. If it was supposed to mean merely that one of them was true but we did not know which, then the necessity would remain in that one event in itself, notwithstanding our ignorance. If it meant something else, then Hobbes found that could make no sense of it at all.¹⁴²

More's view, however, was not that neither was determinately true, but merely that such determination did not amount to the necessitation of either event. When *A* (or, as it might be, not-*A*) was a freely chosen action, More felt that it would indeed be true that it would happen, and even true that it would be *made* to happen by something, but he believed that this 'something' was to be found in the spontaneous volitions of the agent. Since the agent *could* have chosen otherwise, his choice would not confer any genuine necessity onto the resulting event. Hobbes did, of course, believe that human beings would be stirred into certain specific actions by their volitions, and he even allowed that such people could be regarded as 'free' when their actions accorded with their volitions. But he maintained that those volitions were merely steps within a much more extensive causal chain, and were themselves caused to arise within the agent by external forces. The necessity whereby those external forces ensured that the agent would form the volitions he did would, in turn, be conferred onto the actions that resulted from those volitions. The agent might have freedom from constraint—he would act as he wanted to act—but he would not have freedom from necessity. This was the point that More rejected. As far as More was concerned, a free action was one that resulted out a volition for which the agent's own will was wholly responsible, one where his volition was *not* caused in him by external forces, and where he could equally well have formed a contrary volition through an entirely spontaneous and autonomous act of will.

Returning to the issue of time itself, it was this possibility, that free agents should autonomously interrupt and divert the necessary causal sequence by pure acts of will, that allowed More to declare an asymmetry between the past and the future. Once something had occurred, it became utterly impossible to alter the fact that it had indeed occurred. Events acquired a form of necessity as they

¹⁴¹ *The Immortality of the Soul*, pp. 68–75 (bk. 2, ch. 3); *Enchiridion ethicum*, pp. 172–190 (bk. 3, chs. 1–2).

¹⁴² Hobbes and Bramhall 1999, p. 40 (*Of Liberty and Necessity*, §34).

moved from the future into the present, and from thence into the past. But as far as More was concerned, while an event was still in the future, it was not necessary that it should occur at all. Any free agent—which must presumably include not only human beings but also God himself, thereby bringing *all* future events into the scope of the principle—could act to ensure that it would not occur. Futurity, for More, meant only possibility.

So suppose that we pretend that More's argument for a finite past, based on the premise that all moments which are now past were once present, is valid. The converse argument will still fail, because the opposite premise—that all moments which are now future will eventually be present—will be false. An event's being past means that it definitely *did* happen, but an event's being classified as future meant to More merely that it *might* happen. Some 'future' events will never turn out to be present at all. Whatever one thinks about the argument for the finiteness of the universe *a parte ante*, the contrary argument for the finiteness of the universe *a parte post* will not be able to get off the ground. Equally, whatever one thinks about whether More had any good grounds for suggesting that the world needed a definite first state—the Sun in a certain sign, the cow lowing, and so forth—it certainly would not need a definite last state, because the determinacy of its past states in general was not matched by any comparable determinacy in its future states. Whatever was, was. Whatever will be, might not be.

4.2 *God's Presence in Time*

Leaving aside his temporary flirtation with an infinite past, the mature More was satisfied that the universe did have a first moment, but that it would never naturally have a final one (although God certainly *could* annihilate it at any point, should it ever suit him to do so). There was thus a disanalogy between More's treatments of duration and amplitude. Again leaving aside his youthful flirtation with an infinite universe, More's eventual position was that the corporeal world was finite, even though it was then set in an immense but otherwise void space. But, in terms of its duration, the world was finite in one direction and infinite in the other. This peculiar, *sui generis* status of time was permitted by the asymmetry of past and future, with the former fixed and the latter open, in contrast to the equivalence of, say, East and West. The duration and the extension of the created world were, however, still alike to the extent that they were both to be understood as successive. After More had renounced his juvenile holenmerianism, he was persuaded that it was indeed possible to consider a series of different spatial parts of any extension at all, spiritual as well as corporeal, one outside another, regardless of whether or not these could ever be discerned from one another. Likewise, he was satisfied that what philosophers nowadays might call different 'temporal parts' or 'time slices' could be considered separately in any created being, one after another. Here, however, we find that a new difference arises, not now between created extension and created duration, but rather between *God's* immensity and his eternity.

In the earlier part of More's career, he was satisfied that neither God's omnipresence nor his eternity involved any notion of either parts outside parts or parts after parts. As we saw above, the early More believed that the whole of the integral divine substance was present at each and every point in the spatial world. But he also believed that the whole of that substance was equally present at each and every moment throughout its entire duration. 'Eternitie', he wrote in *The Interpretation Generall* to his poems, 'is the stedly comprehension of all things at once.'¹⁴³ He proceeded to refer his reader to the notes upon *Psychozoia*, where he had written of Psyche that 'by her restlesse power [she] brings forth these things in succession, that Eternity hath at once altogether. For such is the nature of *AEon* or *Eternity*, viz. A life exhibiting all things at once, and in one.... Eternity hath all the world in an indivisible indistant way at once, and that actually.'¹⁴⁴ 'Aeon' was one of the names that More gave to the second hypostasis of his version of the Neoplatonic Triad. As far as spatial presence was concerned, we have already observed More's claim that the three hypostases of this Triad were 'all omnipresent in the World, after the most perfect way that humane reason can conceive of. For they are in the world all totally and at once every where.'¹⁴⁵ But, in a parallel fashion, it would now appear that it was in the nature of the second hypostasis—and, one would presume, the first and third too¹⁴⁶—to be wholly present to every *temporal* moment, and to comprehend them all in itself without any form of succession. Even in 1646, when More briefly shifted to thinking that the corporeal universe could actually be both infinitely large and infinitely old, there was still a perfect symmetry between his views on duration and amplitude. God and the world were both infinite in both respects. But the duration of the world was still a succession of temporal parts after parts, whereas God was wholly present at each and every moment of time; while the amplitude of the world was still a manifold of spatial parts outside parts, whereas God was wholly present at each and every point of space.

Subsequently, however, the cases of time and of space came apart. More did still continue to think that the divine amplitude was infinite. Even when he decided that the material world was only finitely large, he still felt that it was surrounded on all sides

¹⁴³ *The Complete Poems*, p. 161b (*The Interpretation Generall*: 'Eternitie').

¹⁴⁴ *The Complete Poems*, p. 136a (notes upon *Psychozoia*, cant. 1, st. 1).

¹⁴⁵ *The Complete Poems*, p. 10a (To the Reader, upon the first Canto of *Psychozoia*).

¹⁴⁶ If Ahad, The One, had any relation to time at all, it would certainly have also enjoyed the same perfect form of eternity whereby More characterised Aeon. However, More tended to follow the Neoplatonist tradition of saying very little indeed about the first hypostasis of the Triad, on the grounds that it was just so far beyond anything the human mind could conceive, and was, in some mysterious manner, 'above' eternity, wisdom and even being. Psyche, meanwhile, was described in the same passage just quoted from the notes upon *Psychozoia* as 'the fountain of this evolved life, whence she is also the very life of time' (*The Complete Poems*, p. 136a: notes upon *Psychozoia*, cant. 1, st. 1). But More does not seem to have meant that Psyche herself suffered the imperfection of successive duration, even an everlasting one, but merely that she was the one who was most immediately involved in endowing created things with successive durations of their own. Her own relation to time does, like that of Aeon, seem to have been an eternal one.

by infinite reaches of real, immaterial space, and that God was present throughout the whole of this space. But the difference is that More now felt that different parts, one outside another, could be conceived not only in this space itself, but also in the divine amplitude that permeated it. And yet, even after he had made this shift away from the holenmerian account of the divine omnipresence, he still continued to embrace its analogue in the case of the divine eternity.

More's mature views on God's eternity are most evident in a section of the *Divine Dialogues* entitled, reasonably enough, 'The Attribute of *Eternity*'. In this section, the interlocutors carefully distinguished God's eternity from the durations of created beings on two grounds: (i) that his eternity did not involve any succession of moments; and (ii) that, hence, there was no moment at which it commenced, as was the case for all created existences.

Bath. And this *necessary Existence* of God I conceive to be the most substantial Notion of his eternal Duration: which cannot well be said to be *successive* properly and formally, but only virtually and applicatively, that is to say, it contains in it *virtually* all the successive Duration imaginable, and is perpetually *applicable* to the succeeding parts thereof, as being always present thereto, as the Chanel of a River to all the Water that passes through it; but the Chanel is in no such successive defluxion, though the Water be. Such is the steady and permanent Duration of the necessary Existence of God in respect of all successive Durations whatsoever.

Philoth. I do not yet so thoroughly understand you, *Bathynous*.

Bath. I say that *successive Duration* properly so called is incompetent to God, as being an Essence *necessarily* existent, and therefore *without beginning*: but the most infinite *successive* Duration that you can imagine will be found to have a beginning.¹⁴⁷

The interlocutors then proceeded to discuss some of the arguments that we just examined in the *Enchiridion metaphysicum* presentation thereof, to demonstrate that all successive duration required a first moment. God's duration, by contrast, could have no first moment, for anything whose existence derived—logically and atemporally—from its own essence would need to be always existing. Only creatures, which depended on something else for their existence, could have a starting point for their existence, namely the moment at which that external thing acted to create them. But, if God could not have a temporal beginning, then his existence could not be successive at all, given that the latter (More now felt) entailed the former. God's duration, as More had Bathynous explain it in this passage, was steady and permanent. He could indeed *apply* himself to the successive created world at different moments of time, but it would be the whole of his own non-temporal substance that would be applying itself thereto, just as the banks of the river would stay still and successively touch a series of different quantities of water as the river flowed between them. God's immutability could thus be preserved. If he did not have different temporal parts at all, then, a fortiori, he could not have temporal parts with different qualities, i.e. he could not be in different states at different times. God could indeed perform different actions at different times, but this did not indicate

¹⁴⁷ *Divine Dialogues*, pp. 32–33 (dial. 1, §15).

any change in him, for those times were only different with respect to the *effects* of his actions. God's actions might have been temporally spread out from the point of view of his creatures; but, from his own point of view, the whole of his activity was united into one great simple and eternal act.

More's renunciation of holenmerianism, taken together with the consistency between his early and late views on eternity, thus introduced a new disanalogy between time and space that had not been present in his earlier writings. In the early 1640s, More had felt that God was infinite with respect to both time and space, and also that he was temporally non-successive and totally present everywhere. But he felt that bodies were opposite to this in every respect. They were finite in both duration (at least *a parte ante*) and extension, and they possessed both successive temporal parts after parts and juxtaposed spatial parts outside parts. (A created spirit was also temporally successive, but its spatial presence occupied a middle ground, being circumscribed and yet total anywhere that it was present at all). In the late 1640s, More still thought all the same things about God's eternity and ubiquity, and he still felt that both the duration and the presence of (corporeal) creatures could only be understood in terms of parts after/outside parts, even though he now felt that infinite duration and amplitude might be ascribed to creation after all. But, although that latter shift meant that the difference between God and creatures, with respect to space and time, was not quite as great as it had once been, at least the spatial and the temporal cases were still perfectly symmetrical with one another. Then More went back again to treating both the durations (*a parte ante*) and the extensions of all creatures as finite, in contrast to the infinity of God's eternity and immensity. But here was where the disanalogy between space and time came in. By the 1660s, whereas God's eternity continued to stand in sharp contrast to creaturely duration, the former non-successive and the latter successive, More was now claiming that both God's amplitude *and* that of his creatures involved some notion of parts outside parts, albeit discernible physical parts in the case of bodies and indiscernible notional parts in the cases of all spirits, both created and divine.

Chapter 6

Spiritual Extension

1 Introduction

As we saw in the last chapter, although More never wavered from the view that spirits, created and divine, were substantially present in the spatial world, his views on the *nature* of that presence did undergo a significant change.¹ Whereas, in the early portion of his career, he had been firmly committed to the traditional ‘holenmerian’ theory whereby a spirit would be whole in the whole and whole in each part of a certain place, he subsequently came to reject this position very firmly indeed. From 1659 onwards, More’s view was that ‘*Extension or Amplitude* is an intrinsic or essential Property of *Ens quatenus Ens*, as the Metaphysicians phrase it.’²

More’s mature theory of the nature of a spirit has sometimes been characterised as having been ‘cast into a materialistic mold’, or as being ‘quasi-materialistic’, and part (though by no means all) of the basis for this charge has lain in this ascription of extension to spirits.³ Certainly if one comes at things from a Cartesian perspective, where extension itself is treated as the defining principal attribute of body, just as thought is for the mind, this charge does seem very natural. But More did not share Descartes’ views on the respective essences of bodies and spirits. As far as he was concerned, the most fundamental difference between them was not to be understood in terms of either extension or thought, but rather in terms of life, i.e. the capacity that a spiritual substance had to initiate new motions spontaneously, either in itself or in other things. Indeed, it was precisely as More made the move *towards* declaring that spirits as well as bodies were extended, that he really began to insist upon a robust ontological distinction between the two kinds of substance. (We will be returning to

¹I already presented, in Reid 2003a, much of the material of the first four sections of this chapter.

²*Divine Dialogues*, p. 49 (dial. 1, §25).

³See Lichtenstein 1962, p. 169; Henry 1986a, pp. 173, 195, and *passim*; Hutton 1995, p. 381; Crocker 2003, pp. 134, 174; etc.

these points in the next chapter below). In particular, More was scrupulously intent on preserving his extended spirits from the imperfections that were associated with *corporeal* extension, and he endeavoured to defend his theory by demonstrating that the nature of their extension was actually very unlike that of bodies.

He had already done this in his correspondence with Descartes himself where, as we saw, he was prepared to say that God was extended ‘in his own manner’. In his second letter to Descartes, of 5 March 1649, More had enumerated various respects in which the divine amplitude should be understood to differ from corporeal extension: (i) it was not sensible; (ii) it was uncreated and independent; (iii) it was penetrable and all-penetrating; and (iv) it arose ‘out of the ubiquitous repetition of the total and integral essence’, whereas corporeal extension arose ‘from the external (but immediate) application and juxtaposition of parts’.⁴ That fourth characteristic of the divine presence amounted to another clear expression of the holenmerian position, to which More was still wedded at this time, but on which he would shortly be turning his back. As for the first distinction, that was slightly problematic: could there not be a *body* that, in virtue of being perfectly fluid—or, for that matter, too small—was unable to affect the sense organs? More’s own conception of aethereal matter would near enough fit this bill. It would still be impenetrable, in the sense that our hands (for instance) would be unable to enter into its place for as long as it remained there; and yet it might rush away from that place without offering any resistance as they began to encroach, and hence would not reveal itself to the touch. This was, of course, the basis for Descartes’ own distinction between impenetrability and hardness, and for his criticism of More’s efforts to define body in terms of tangibility.⁵ But then, as we noted in Sect. 5 of Chap. 2, More himself was not entirely blind to this distinction, even at the time; and certainly in the definitions of ‘body’ from his later works, he would be leaving mere sensibility well behind him, and focusing exclusively on impenetrability.

The second distinction was clearly only going to be applicable in the divine case: the extensions of created spirits were certainly going to be themselves created, and dependent upon their Creator, every bit as much as the extensions of bodies were. But the third distinction could be applied in the cases of all spirits, created as well as divine, and that one did serve to set them both together apart from bodies. And, as a matter of fact, even something of the fourth could still be preserved in More’s mature position. Although he did end up firmly disavowing the theory that a spirit’s ‘total and integral essence’ could be present in different places at once, he also did not believe that its extension would physically *arise out of* the juxtaposition of really distinct parts. Instead, parts that were merely notionally distinct would mentally arise out of the inadequate consideration of the whole. This would still serve to set spiritual extension apart from corporeal extension, notwithstanding the abandonment of holenmerianism. If a body’s extension arose out of the union of really distinct

⁴*Epistolae quatuor*, p. 78/AT 5:308 (More to Descartes, 5 March 1649).

⁵Descartes 1991, pp. 40–41/AT 8A:42/CSM 1:224 (pt. 2, §4); *Epistolae quatuor*, pp. 66–67/CSMK 360–361/AT 5:268–269 (Descartes to More, 5 February 1649).

parts outside parts, then it should in theory be possible that it might be broken back down into those individual parts again, i.e. divided or discerped. If, however, the parts of a spirit's extension were only notionally distinct, then, although the intellect might be able to consider them separately, they could be preserved from all possibility of separation in reality.

More defined the distinction between bodies and spirits, as he now saw it, several times in his later works. He contended that 'the precise Notion of *Substance* is the same in both, in which, I conceive, is compris'd *Extension* and *Activity*, either connate or communicated.'⁶ But that basic notion of substance as such would then be subdivided into two categories, according to the nature of that extension and that activity. When the activity was connate, we would be dealing with a self-moving spirit; where it was only communicated, we would be dealing with a passive body. But, moreover, the extension of an immaterial substance would be indiscerpible and penetrable, whereas the extension of a material substance would be discerpible and impenetrable. Thus, in his 1683 response to Richard Baxter's *Placid Collation*, More defined the essence of body in terms of 'real *Divisibility* or *Discerpibility*, *Impenetrability* and mere *Passivity* or *Actuability*', before then proceeding to define the essence of spirit as the precise opposite of this, in terms of '*Indiscerpibility*, *Penetrability*, and *Self-Activity*'.⁷ The indiscerpibility or 'real indivisibility' of a spirit derived from the fact that, as More put it elsewhere, it was '*ens unum per se*,' whereas a body was '*ens unum per aliud*'.⁸ That is to say, a spirit's unity derived from its own essence whereas that of a body derived from something alien to it—namely, from the spirit that held its various constituent physical monads together. The following definitions from the *Divine Dialogues* therefore coincide exactly with those just quoted. In these dialogues, Philotheus defined the essence of body in terms of 'Self-disunity,' 'Self-impenetrability' and 'Self-inactivity,' and he left it to Hylobares to make the easy inference to a definition for its opposite: 'Methinks I find my self able to define it by the rule of Contraries. For if *Self-disunity*, *Self-inactivity*, *Self-impenetrability*, be the essential Attributes of *Matter* or *Body*; then the Attributes of the opposite *species*, viz. of *Spirit*, must be *Self-unity*, *Self-activity*, *Self-penetrability*.'⁹

⁶*The Immortality of the Soul*, p. 8 (bk. 1, ch. 3, §2).

⁷*Two Choice and Useful Treatises*, second part, pp. 180–181 (*Annotations upon the Discourse of Truth*, The Digression).

⁸Norris 1688, pp. 152–153 (More to Norris, 19 January 1684/5).

⁹*Divine Dialogues*, pp. 61, 64 (dial. 1, §§29, 30). See also *The Immortality of the Soul*, p. 8 (bk. 1, ch. 3, §§1–2). This approach (ultimately an Aristotelian one) to defining spirits and bodies 'by the rule of Contraries' did not receive universal approval. Boyle, for instance, wrote: 'though superficial considerers take up with the vulgar definition, that a spirit is an immaterial substance, yet that leaves us exceedingly to seek, if we aim at satisfaction in particular enquiries. For it declares rather what the thing is not, than what it is; and is as little instructive a definition, as it would be to say, that a curve line is not a strait one, which sure will never teach us what is an ellipsis, a parabola, an hyperbola, a circle, or a spiral line, &c.' (Boyle 1999–2000, vol. 12, p. 474: *The Christian Virtuoso*, The Second Part).

Now, it would ultimately turn out that the attributes of penetrability and indiscernibility would render a substance fit to be endowed with the power to initiate motion spontaneously, whereas an impenetrable and discernible substance would find itself forever doomed to be moved exclusively by other things. But More felt that those first two distinctions were actually prior to the third, and were in fact quite adequate by themselves to the task of distinguishing two wholly different kinds of extended substance: ‘So that two Substances, *Matter* and *Spirit*, stand opposite one to another, specifically distinct, by their immediate, essential and inseparable Attributes, the one being really *discernible* and *impenetrable*, the other *penetrable*, and *indiscernible*, sufficiently thus to be discriminated before we consider any Principle of *Activity* in either.’¹⁰ Thus, in *Enchiridion metaphysicum*, More began by defining ‘material substance’ and ‘immaterial substance’ in terms of their respective impenetrability/penetrability and discernibility/indiscernibility, and only then did he go on to define ‘body’ and ‘spirit’ in terms of those two more basic notions of substance. A body was to be understood as ‘a material substance devoid in itself of all perception and life, and indeed all motion’, while a spirit was an ‘immaterial substance intrinsically endowed with life and the faculty of moving’.¹¹

2 Indiscernibility

We first encountered More’s notion of indiscernibility in Chap. 2, there focusing specifically on the case of atoms. More preferred this term to ‘indivisibility’, because he felt that the latter was ambiguous. Even though (he believed) one part of a spirit could never be actually separated from another, it did still remain possible for us separately to consider different spatial regions within the spirit, and this might be regarded as a form of mental separation. Spirits, he declared, were ‘*intellectually* divisible, but *Physically* indiscernible’.¹² Their various spatial regions were only conceptually distinct ‘notional’ or ‘logical’ parts, which arose mentally out of the partial consideration of the whole, and not really distinct ‘physical’ parts of the kind that could be juxtaposed to produce compound bodies.

More likened the power of the mind to consider one spatial region of a spirit, without thinking of the remainder, to the power it had to consider one of God’s attributes without thinking of the rest. The mind could not think of God’s omnipotence, for instance, as if this existed in the absence of his omniscience, because they were so intimately united in his supremely simple substance and essence. What it could do, however, was think of his omnipotence without giving any thought one

¹⁰*Saducismus Triumphatus*, p. 196 (*An Answer to a Letter of a Learned Psychopryist*, §1).

¹¹*Enchiridion metaphysicum*, vol. 1, pp. 117–118 (ch. 28, §§2–3).

¹²*Divine Dialogues*, p. 64 (dial. 1, §30). See also *Enchiridion metaphysicum*, vol. 1, p. 124 (ch. 28, §10).

way or the other to his omniscience. That is, it could focus its intellectual attention on the one attribute, not denying but merely disregarding the other. Whether the mind was contemplating God's omnipotence, or his omniscience, or simply contemplating God as such, the object of its thought would be one and the same thing, namely the divine substance itself. The difference would lie merely in the adequacy of its contemplation thereof. See pp. 149–151 above, for more on this kind of distinction of reason. But, given that such partial considerations did not correspond to any sort of real distinction between the attributes, it was scarcely going to correspond to any real, physical discernibility.

And so likewise with regard to the divine extension. We might contemplate God's amplitude as such, which would already be only a partial consideration of his whole nature. Or we might contemplate it even less adequately, by focusing on this or that region, not as if it could exist in the absence of the remainder, but simply disregarding that remainder. More dismissed the question, 'How many ells or fathoms wide God appears here or there?', describing it as an 'alien and discordant and invidious' question.¹³ There was actually a sense in which More would need to allow that (finite portions of) God's presence could indeed be measured in ells and fathoms: but he disliked the question all the same, because he felt that it was loaded with the covert insinuation that the fact that God permeated the dimensions of bodies should render him as corporeal and divisible as they were. The question, More wrote, was, 'as absurd and crass as if someone, from the fact that the divine hypostases or the attributes of God can be counted out by copper counters placed on a table, would infer them to be really distinct and corporeal, indeed, even copper, if you please.'¹⁴

As for the finite extension of a created spirit, More similarly believed that different notional parts could indeed be mentally isolated within it and considered alone, as the mind took notice of the different physical parts of the body that it filled. When we contemplate a person's head, for instance, this can lead our intellectual attention to the portion of his spirit that is present therein, as opposed to the portion that permeates the toe. The notion of whole and parts, as More significantly wrote, 'is not restricted to any definite kind of being, but pertains to both incorporeal and corporeal substances, to being as being'.¹⁵ Incorporeal and corporeal substances might not have parts in the same sense as one another. The notional parts of spirits are merely epistemological artefacts, resulting out of this power the mind has to consider the whole partially, and they are not really distinct from one another as the physical parts of bodies are.¹⁶ But, even so, when we do mentally consider parts within a spiritual extension, we can clearly grasp that these different parts *do*, after all, have their own different places, one outside another. If we (i) grant that a man's soul does

¹³*Enchiridion metaphysicum*, vol. 1, p. 134 (ch. 28, §10, scholium). See also *Divine Dialogues*, p. 531 (dial. 1, §32, scholium).

¹⁴*Ibid.*

¹⁵*Enchiridion metaphysicum*, vol. 1, p. 24 (ch. 3, §2, scholium).

¹⁶*Enchiridion metaphysicum*, vol. 1, pp. 123–26 (ch. 28, §§9–13); *Divine Dialogues*, p. 531 (dial. 1, §32, scholium); Norris 1688, pp. 152–153 (More to Norris, 19 January 1684/5).

have a genuine substantial presence throughout his body, (ii) affirm that the notions of part and whole, suitably construed, do indeed apply to spiritual substances, but (iii) deny that the whole of his soul can be present in every part of his body at once, then it does indeed appear that the only remaining possibility must be that one part of his soul should be present in his head while a *different* part is present in his toe. In *Enchiridion metaphysicum*, More's attack on nullibism led him to endorse (i); I have just quoted his endorsement of (ii), drawn from the same work; and his attack on holenmerianism amounted to (iii). Thus, notwithstanding its differences from corporeal extension, the extension that was being ascribed to spirits in this work really was worthy of that name. The so-called extension that More was attributing to spirits in his correspondence with Descartes had amounted *only* to presence throughout a certain (finite or infinite) region of space. The spiritual extension of More's mature works, by contrast, genuinely did involve parts outside parts.

And yet, as I have said, those parts were necessarily inseparable from one another. As far as More was concerned, it even went beyond the omnipotence of God himself to break up a spirit according to the various different portions of its extension: 'He may annihilate a Spirit, if he will. But if a Spirit be immediately and essentially one, he can no more discern it, than he can separate that Property, of having the power of the *Hypotenusa* equal to the powers of both the *Basis* and *Cathetus*, from a *rectangle-Triangle*.'¹⁷ It might be complained that More did not provide any explanation of precisely *how* the various extended parts of spirits were getting held together so firmly that not even God could separate them. But he did not feel that such an explanation was either possible or necessary. 'There are some Properties, Powers and Operations, immediately appertaining to a thing, of which no reasons can be given, nor ought to be demanded.'¹⁸ The indiscernibility of spirits was just such an attribute, for which no reason could be given. It was essential to a spirit, and that was that. A spirit wanted 'no other *Vinculum* to hold the parts together but its own essence and existence; whence it is of its own nature *indiscernible*'.¹⁹ The question of *how* the parts of a spirit were bound together made no more sense than the question of *how* the property of having the square of the hypotenuse equal to the squares of the other two sides was bound together with the property of being a right-angled triangle. That was just part and parcel of what it was to *be* a right-angled triangle.

But there is another problem that is perhaps slightly more grave than this one, since it tends to undermine at best the neatness and at worst the coherence of

¹⁷*Divine Dialogues*, p. 65 (dial. 1, §30). (The 1713 edition actually reads: '... from *rectangle-Triangle*.' I have inserted the indefinite article from the 1668 edition, and also cleaned up the punctuation). See also *Enchiridion metaphysicum*, vol. 1, p. 126 (ch. 28, §13), and elsewhere.

¹⁸*The Immortality of the Soul*, p. 5 (bk. 1, ch. 2, axiome 9). See also op. cit., p. 7 (ch. 2, §9, note); and *Observations upon Anthroposophia Theomagica, and Anima Magica Abscondita*, pp. 6, 47 (preamble; and upon *Anima Magica Abscondita*, pag. 4, lin. 23); *The Second Lash of Alazonomastix*, pp. 161–163 (upon [page 93], observation 4); *Enchiridion ethicum*, pp. 210–211 (bk. 3, ch. 4, §3); *Enchiridion metaphysicum*, vol. 1, p. 127 (ch. 28, §§14–15); *Saducismus Triumphatus*, pp. 218–219 (*An Answer to a Letter of a Learned Psychopyrist*, §13).

¹⁹*Divine Dialogues*, p. 64 (dial. 1, §30).

More's ontological taxonomy of substances. For More really did want to maintain a scrupulously dualist ontology in his later works, notwithstanding his willingness to attribute extension to substances on both sides of the divide. On the one hand, there were bodies, which were discernible and impenetrable. On the other hand, there were spirits which, whether created or divine, all agreed in indiscernibility and penetrability. But the trouble with using *two* pairs of properties jointly to establish a distinction between different categories of entity is that, other things being equal, they will more naturally serve to divide things up into four categories, and not just the two that More was after. Suppose we accept that material extension is impenetrable and discernible, and that immaterial extension is penetrable and indiscernible: we can still wonder about things whose extensions are impenetrable but indiscernible, or things that are penetrable and yet discernible. (Indeed, given that More then proceeded to add a third pair of properties—self-activity and self-inactivity—to this basic scheme, in order to build his notions of material and immaterial substance up into fuller notions of body and spirit, we actually seem to be in danger of potentially finding ourselves facing not four but *eight* categories of being!).

At one point, More did suggest that these extra pairings of attributes—indiscernible and impenetrable, discernible and penetrable—were actually impossible.²⁰ But he did not provide any real argument for this, and the suggestion is rather undermined by the fact that both such pairings can actually be found within his own philosophical system. In a note to this passage, More observed that the figured (hooked) atoms of the Epicureans might have qualified as indiscernible and impenetrable²¹: but, as we saw in Chap. 2, More himself did not believe that any such figured atoms existed. But what he failed to mention in this note was that *his own* figureless atoms were themselves supposed to be indiscernible and impenetrable. More's various discussions of atoms make this abundantly clear. Given that More's atoms were extended, albeit minutely and insensibly, it followed—by his own admission—that we could focus our intellectual attention on one part of an atom while disregarding the remainder. But what neither we, nor even God himself, could ever do was actually separate this part from the rest, because the atom as a whole was as small as it was possible for anything to be. As we saw, More felt that there had to be a finite lower limit to the physical division or discernption of matter, for to reduce it to infinitely many non-extended mathematical points would be to reduce it to so many absolute non-entities. And so he was prepared openly to declare: 'if that be but granted, in which I find no absurdity, That a particle of *Matter* may be so little that it is utterly incapable it should be made less, it is plain that one and the same thing, though intellectually divisible, may yet be really indiscernible.'²² It was this very indiscernibility that provided one of the reasons for More's rejection of the hooked atoms of the Epicureans: their protuberances would have constituted discernible physical parts, which could not be allowed in anything truly worthy of the name 'atom'.

²⁰*The Immortality of the Soul*, p. 9 (bk. 1, ch. 3, §3).

²¹*The Immortality of the Soul*, p. 12 (bk. 1, ch. 3, §3, note).

²²*The Immortality of the Soul*, p. 20 (bk. 1, ch. 6, §5).

And yet, given that More's atoms were also supposed to be impenetrable, their extension turned out to be *sui generis*, and was not captured by More's definitions of either matter or spirit. An atom could not be material, because it was indiscernible. It could not be spiritual because (quite aside from its being a dead, passive principle), it was impenetrable. The ontological status of More's atoms was thus a rather curious one, to say the least. Richard Baxter (1615–1691) argued that More's position was actually incoherent, on the grounds that, '[i]f one Atom be no matter, then two is none, and then there is none.'²³ In More's defence, though, one might point out this was fundamentally just a terminological issue, about how broadly or narrowly terms like 'matter' or 'body' ought to be defined. In the light of the profound difference between atoms and compound bodies—the former indiscernible, the latter discernible—it was not so unreasonable that More should have wished to employ a concept that would capture only the discernible compounds. Ultimately, he could live with the consequence that, strictly speaking, individual atoms could not be classified as material or corporeal.

But Baxter did not stop there. He complained to More that he was not only inadvertently removing individual atoms from the category of matter, but was also seriously undermining the supposed distinction between atoms and spirits.²⁴ Both were, after all, supposed to agree with respect to indiscernibility. Indeed, More's own writings suggest that he was sensitive to the similarity between atoms and spirits on this point. Discussing the 'centre' of a spirit, from which its 'secondary substance' was supposed to emanate as an orb of light would emanate from its own central source, he described such a spiritual centre in a passage in terms borrowed directly from his own conception of an atom: 'Thus have I found a possibility for the Notion of *the Center of a Spirit*, which is not a Mathematical point, but Substance, in Magnitude so little, that it is *Indiscernible*'.²⁵ In the 1640s, More had even used the term 'atom-life' to describe such a spiritual centre, defining it as synonymous with 'central-life'.²⁶ And then, once he began to shift away from the term 'atom' in the physical context in favour of the expression 'physical monad', he simultaneously shifted to calling its spiritual counterpart 'a metaphysical monad, that is, a spiritual substance, not exceeding the amplitude of a physical monad.'²⁷

But More did reply to Baxter's complaint, and he attempted to distinguish between atoms and spirits, not only by reference to the fact that one was alive and the other was not, but specifically by reference to the contrasting nature of their respective indiscernibilities: 'But those very *Indiscernibilities* are *Specifically* different.

²³Baxter 1682, p. 16.

²⁴Baxter 1682, pp. 16–17. Pasnau likewise suggests that More was led 'inescapably into contradiction with his account of corporeal atoms.... If atoms are indiscernible in the way souls are, then it seems we should say either that atoms are incorporeal or that souls are corporeal' (Pasnau 2007, p. 307). The accusation of contradiction is certainly too strong: More simply settled for the first horn of that alleged dilemma. Still, that is not to dismiss the main thrust of the objection.

²⁵*The Immortality of the Soul*, p. 17 (bk. 1, ch. 6, §1).

²⁶See *The Complete Poems*, p. 159b (The Interpretation General: 'Atom-lives').

²⁷*Enchiridion metaphysicum*, vol. 1, p. 112 (ch. 27, §14).

For that of a *Spirit* is an *Indiscernibility* that arises from the positive perfection and *Oneness* of the Essence, be it never so *ample*; that of an *Atom* or *Physical Monad*, from imperfection and privativeness, from the mere *littleness* or smallness thereof, so small that it is impossible to be smaller, and thence onely is Indiscernible.²⁸ Unfortunately, however, More does not really seem to be entitled to this sort of defence for his theory. It is certainly true that he had different *arguments* to establish the indiscernibilities of spirits and atoms. But, in both cases, the indiscernibility itself was taken to be one of those fundamental, essential properties for which no explanation could be given or should be sought. More could say why the (notional) parts of a spirit or an atom needed to be bound so firmly together that not even divine omnipotence could rend them asunder: but he could not say anything about *how* they were thus bound together. It was just part and parcel of what it was to be a spirit or an atom. And, although this might not be such an unreasonable position to adopt in itself, the trouble now is that, by declining to explain how extended parts can be indiscernibly united, More was denying himself the opportunity to give *different* explanations in the two cases. Indeed, in order to defend his ascription of indiscernible extension to spirits in *Enchiridion metaphysicum*, More saw fit to remind his readers that atoms or physical monads were also indiscernibly extended.²⁹ He would surely not have drawn such a comparison if the two forms of indiscernibility had truly been as ‘specifically different’ as he suggested to Baxter.

More’s atomism thus committed him to a third category of being. As corporeal extension—that is to say, the extension of *compound* bodies—was discernible and impenetrable, and spiritual extension was indiscernible and penetrable, atomic extension was indiscernible and impenetrable. As for the fourth of the categories that would naturally seem to flow from More’s double definition of the matter-spirit distinction, an aggregate of created spirits—a society—would turn out to be discernible and penetrable. More never subjected societies to any direct metaphysical scrutiny, presumably because he regarded such aggregates (at least in terms of their ontology, even if not of their collective behaviour) as amounting to nothing over and above the sums of their parts. But one can already sense a certain sleight of hand in More’s discussion. His focus was very firmly on, on the one hand, compound bodies and, on the other hand, individual spirits. But one might suggest that a much fairer contrast would either have been between the individuals in both cases—atoms and individual spirits—or else between the aggregates in both cases. Indeed, of these latter two contrasts, the more proper one seems to be the first, namely that between atoms and individual spirits. A theory of the ontology of compound bodies should ultimately be derivable from and reducible to a theory of the natures of their constituent atoms and the relations between them. On the face of it, atomic theory seems much more fundamental to an adequate understanding of the workings of the corporeal world than does the theory of compound bodies as such. But then, if More

²⁸*Two Choice and Useful Treatises*, second part, p. 211 (*Annotations upon the Discourse of Truth, The Digression*).

²⁹*Enchiridion metaphysicum*, vol. 1, p. 124 (ch. 28, §10).

had focused on the contrast between atoms and individual created spirits—or even if he had focused on aggregates in both cases—he would have immediately lost half of his cherished account of the distinction between the two forms of extension, for the discernibility-indiscernibility contrast could no longer have been employed. As far as establishing a coherent distinction between spiritual and corporeal extension, prior to any consideration of self-activity and the lack thereof, was concerned, the entire burden would then be placed on the shoulders of its partner, the penetrability-impenetrability distinction, to which we now turn.

3 Penetrability

So much, then, for indiscernibility: what did More understand by ‘penetrability’, as this notion was supposed to apply to spirits? Roughly speaking, and as we have already discussed, the penetration of one thing by another meant that the two of them, having previously been separate, would come to co-exist simultaneously in the same place. Two *bodies* could only penetrate one another in a much weaker sense, as when air or aether squeezed its way into tiny pores within a grosser body. But this would merely result in a quantity of air or aether’s being *surrounded* by a distinct body. The internal dimensions of the pores wherein it was contained did not really belong to the surrounding body at all. By contrast, in the case of an act of penetration between a *spirit* and a body, the two substances really would come to overlap one another in precisely the same spatial region, intimately permeating one another’s own proper dimensions. But then there are three different ways to interpret this basic scheme in more detail. Suppose a spirit and a body do indeed come to occupy the same place. Should we say (i) that the spirit has penetrated the body, or (ii) that the body has penetrated the spirit, or (iii) that the body and the spirit have mutually penetrated one another?³⁰ Which of these conceptions of penetration did More himself prefer?

It was important for him to avoid at least the third of these positions, insofar as his goal was to analyse the essential differences between body and spirit. If there was only a mutual and reciprocal penetration between a body and a spirit—their merely becoming co-present, without either one taking responsibility for bringing about that state of affairs—then it is hard to see what basis there could be for calling one of them ‘impenetrable’ and the other one ‘penetrable’. It would seem that both of them were penetrating the other one, *and* equally suffering penetration by the

³⁰Edward Grant distinguishes these three conceptions of penetration, specifically in the context of the act of penetration that can take place between a body and a region of space: Grant 1981, p. 235. See also pp. 186–188, 193, 217–218, 231, 378 n. 42, 380 n. 62, 396 n. 218, 403 nn. 286 and 287, on the issue of the penetrability (or impenetrability) of space in the works of Bruno, Telesio, Guericke, Raphson and Keill in particular. As Grant points out, there was no consensus across authors of the period about how penetrability should be understood, and these three conceptions were not always kept properly separate, even in the works of individual authors.

other one. As Pierre Bayle put it: ‘If you carefully consult common sense, you will see that when two extensions are penetratively in the same place, one is as penetrable as the other. It cannot therefore be said that the extension of matter differs from any other kind of extension by impenetrability.’³¹ As we will shortly see, Richard Baxter also presented the same objection to More directly. By apparently obliterating the sought-after difference in their respective penetrative abilities, such a notion of mutual penetration cannot offer any assistance in establishing a general theory of how immaterial substance differs from material substance.

Perhaps it will not obliterate such a difference altogether. It is worth noting that More believed that many spirits could exist penetratively in the same place, whereas any body that was there would keep all other bodies out. Therefore, even if we do opt to understand penetration as a reciprocal relation, we can still discern this one difference in the penetrative abilities of spirit and body after all: a spirit can enter into a mutual penetration with another spirit, while a body cannot enter into a mutual penetration with another body. But the trouble is that what we are after here is an explanation of what those two kinds *are*. Even if this difference does obtain as a matter of fact, it would still be circular to attempt to use that fact within an analysis of the distinction between body and spirit, given that it appeals to a prior understanding of that very distinction. Suppose there are, say, eight substances penetratively co-existing in a certain place. Taking notice of this theory of More’s, we will be in a position to say that at most one of them can be a body, while the remainder must all be spirits. But we will have no way of deciding *which* is the body, or even what that judgment would actually *mean*.

What, then, of the two remaining alternatives? When a body and a spirit come to occupy the same place, if we want to avoid saying that each has equally penetrated the other, then should we say that the spirit has penetrated the body or vice versa? When More tells us that spirits are penetrable and bodies are impenetrable, are we to interpret that word ‘penetrable’ as meaning ‘able to penetrate’ or ‘able to be penetrated’? The latter interpretation, treating penetrability as a passive capacity to be penetrated, does seem to be the sole twenty-first-century sense of the term. But it does not seem to have been how More was using it. Although the other interpretation, treating penetrability as an active capacity to penetrate, is now obsolete, the Oxford English Dictionary does indicate that, between the fifteenth and the eighteenth centuries, the word did occasionally get used in this sense. Indeed, an author whom it specifically cites as having used it with this meaning—in fact, the *final* such person identified by

³¹Bayle 1991, pp. 281–282 (‘Simonides’, note F). Although Bayle did not actually refer to More by name, the larger discussion in which this passage appears does display several points of contact with More’s own theory of spiritual extension, as presented in *Enchiridion metaphysicum*, and it might have been drawn up as a direct response thereto. Bayle certainly did know this work of More’s well, referring to it several times: see the *Nouvelles de la République des Lettres* for September 1685 (Bayle 1732, vol. 1, p. 368b); the letter to his elder brother, 24 July 1677, in his *Lettres à sa famille* (op. cit., p. 79a–b in the second, separately paginated section); and his 1679 *Objections contre le traité de Pierre Poiret* (Bayle 1982, p. 21)—the treatise of Poiret in question there being the same one that More criticised in the 1679 scholia to his *Divine Dialogues*.

the dictionary's editors—was none other than More himself.³² More did, after all, repeatedly claim not only that spirits were penetrable and bodies were impenetrable, but also that spirits could penetrate bodies. I shall henceforth be adopting this same usage, understanding penetrability as an ability to penetrate, and impenetrability as an inability to do so (although much of what follows will require at best only a slight adjustment to its wording in order to make equally good sense on the nowadays more familiar passive conception of penetrability).

I would just note in passing, though, that, quite aside from mere terminological preference, there is actually a rather deeper, philosophical reason why it was good for More that he set things up in the way he did (although I do not put too much weight on this, given that More himself shows no signs of having spotted it). What More wanted to achieve, remember, was a way of defining a robust distinction between spirits and bodies in terms of penetrability and impenetrability. The reciprocal conception of penetrability threatened to scupper this project: so how will these alternative active and passive conceptions fare? It would seem that the active conception will enable us to sidestep the circularity problem that arose with the reciprocal conception. What we need to avoid doing is making any mention either of bodies or of spirits in our identifications of the objects that a subject is said to be actively able to penetrate, given that our goal is to define, in terms of that ability, what it means for a thing to be a body or a spirit in the first place. But, on the active conception, we do not need to make any such reference. In this active sense of 'penetrable', and according to the tenets of More's metaphysical theory, a body cannot even penetrate a penetrable thing, let alone an impenetrable one. We can therefore declare that spirits are penetrable in the sense that there are some things that they are able to penetrate, whereas bodies are impenetrable in the sense that they are unable to penetrate *anything at all*. And here we have a distinction between spirit and body, drawn up in terms of penetrability, which is not only logically consistent in itself, and in no way circular, but which is also true to the philosophical as well as to the terminological details of More's metaphysics. But what about the passive conception of penetrability? Again, to avoid circularity, we must scrupulously avoid all references to bodies and spirits in our identifications of, in this instance, the objects by which our subjects can passively be penetrated. So could we say that spirits are penetrable in the sense that they can be penetrated by anything, whereas bodies are impenetrable in the sense that there are some things (*sotto voce*: other bodies) by which they cannot be penetrated? Well, this might not be circular, but the trouble is that it fails to accord with More's metaphysics. As we will be discussing shortly, More felt that finite, created spirits, under certain circumstances (namely, when they

³²The citation is actually to the English translation of one of More's 1679 scholia to the *Divine Dialogues*: 'a Substance... most perfectly penetrable, which entirely passeth through every thing' (p. 531: pt. 1, §32, scholium). What that means is that this was not actually More's own wording: the translation of these Latin scholia was done posthumously (and anonymously) for the 1713 edition. But the sentiment was certainly More's; and the wording does agree with other statements that he himself made in English elsewhere.

are ‘saturated’), could not be penetrated by other finite, created spirits. Therefore, in their case just as truly as in the case of the bodies from which still we still want to distinguish them, there are some things by which they cannot be penetrated.

But in any case, regardless of whether one happens to prefer the active or the passive conception of penetrability, one does seem to be obliged to give some account of how these two conceptions actually differ from one another, and from the reciprocal account, at a metaphysical level. The bare fact of two substances’ existing in the same place at the same time does itself seem clearly to be reciprocal: so what *additional* circumstances need to be in place, in order that we might be entitled to declare that one of these substances, rather than the other, is to be regarded as taking responsibility for bringing about such a state of affairs?

Just as Richard Baxter had criticised More for his treatment of indiscernibility, he also criticised him for his treatment of penetrability, and he pressed him specifically on the question of whether penetrability was to be understood actively, passively, or reciprocally. Baxter wished to know how (if at all) More could adequately establish the sort of agent-patient distinction he needed, between two things that came to exist in the same place, in order then to go on to use such a distinction to support an identification of one (the patient) as a body and the other (the agent) as a spirit. In his response, More briefly summarised what he took to be the main thrust of Baxter’s critique, and he subsequently answered it with all of the respect he felt it was due:

Sixthly, pag. 17, 18. [Penetrable] whether actively or passively understood, can be no proper Character of a Spirit, forasmuch as Matter can penetrate a Spirit, as well as a Spirit Matter, it possessing the same place. See pag. 23.³³

The sixth also is a pretty juvenile Ferk of Wit for a grave ancient Divine to use, That *Penetrability* can be no proper Character of a *Spirit*, because Matter can penetrate Spirit as well as Spirit Matter, they both possessing the same space. Suppose the bodie A. of the same amplitude with the bodie B. and thrust the bodie A. against the bodie B. the bodie A. will not nor can penetrate into the same space that the bodie B. actually occupies. But suppose the bodie A. a Spirit of that amplitude, and according to its nature piercing into the same space which the bodie B. occupies, how plain is it that that active piercing into the same space that the bodie B. occupies, is to be attributed to the *Spirit* A. & not to the bodie B? For the *bodie* A. could not get in. These are prettie forc’d distortions of Wit, but no solid methods of due Reason. And besides, it is to be noted, that the main Character of a *Spirit* is, as to *Penetrability*, that *Spirit* can penetrate *Spirit*, but not *Matter Matter*.³⁴

But how adequate is this as a response to Baxter’s challenge? Let us probe More’s ‘A’ and ‘B’ interactions, and see what we come up with.

We can agree with More that, when body *A* moves up against a fixed body *B*, it will be prevented from entering its place. Or, if it does manage to enter into it, then it can only be by pushing *B* out of the way, an occurrence against which *B* will exert

³³*Two Choice and Useful Treatises*, second part, p. 204 (*Annotations upon the Discourse of Truth*, The Digression). The brackets are More’s, and the page references are to Baxter’s original presentation of the objection in Baxter 1682.

³⁴*Two Choice and Useful Treatises*, second part, pp. 211–212 (*Annotations upon the Discourse of Truth*, The Digression).

inertial resistance. On the face of it, this would appear to be a manifestation the impenetrability (inability to penetrate) of body *A*. We can also agree with More that, when *A* is not a body but a spirit, moving up to the same fixed body *B*, spirit *A* will be able to permeate body *B*'s dimensions without encountering any resistance at all. This would seem to demonstrate the penetrability (ability to penetrate) of the spirit *A*. But, if penetrability is supposed to be understood as amounting merely to this sort of easy, unchecked motion into a certain place, then what about the case where *A* is a body again, but one that is now moving up against motionless *spirit B*? In the light of More's opinion that the natural world is a plenum, *B*'s place will additionally contain some body or other, call it *C*, and *that* might well resist the entry of *A* into the place of *B*. But More's plenum was only ever supposed to be a contingent one: so let us just suppose, for the sake of argument, that the spirit *B* is resting in an otherwise void region of space. (Consider, for instance, the archer at the edge of the corporeal universe, trying to shoot his arrow out beyond the boundary; and imagine that a spirit just happens to be stationed in the arrow's intended path through extra-mundane space. Indeed, we need not even go to the trouble of imagining a created spirit there—the parts of space are *themselves* supposed to bear this same attribute of penetrability). In that case, body *A* will be able to permeate spirit *B*'s dimensions without encountering any resistance at all. If, when a moving spirit entered the place of a body, we decided that the spirit should be regarded as penetrable on that account, then why should we not say the same about the moving *body* in this case? More might respond that the two cases are very different: in the former case, the object that was being penetrated was corporeal and, in this case, it is spiritual. True enough. But I return to the point made above, that it must be circular to presuppose a prior contrast between spirit and matter—as More himself actually does at the end of the above extract, when he writes that spirit can penetrate *spirit* and matter cannot penetrate *matter*—when the reason why we are analysing the notion of penetration at all is precisely so that we can then go on to use that analysis to support a derivative analysis of that very contrast.

In the above passage, More seems to have wished to distinguish between the subject and the object of an instance of penetration by appeal to motion alone. When substance *A* moves into a place, without thereby displacing the substance *B* that is already there, More would apparently attribute responsibility for the act of penetration to the moving object, and accordingly treat that one as being penetrable. Elsewhere, he referred to 'the *Penetrability* and easy passage of a *Spirit* through *Matter*', making it seem, again, that penetrability is to be attributed to the thing that passes through, not to the thing through which it passes.³⁵ But, quite aside from the problem just raised, of how matter might pass through a spirit with precisely equal ease, there is a deeper problem here.

Let us put finite spirits to one side, and consider the case of God himself. More certainly believed that God was most eminently spiritual, and that one aspect of this spirituality was indeed that he was supremely penetrable, permeating absolutely

³⁵*The Immortality of the Soul*, p. 27 (bk. 1, ch. 7, §5).

everything in the universe. But he also believed that God was perfectly immutable, and part and parcel of this immutability was his immobility. Or, again, consider the Spirit of Nature, the created yet universal spirit that More postulated as the immediate agent of those physical changes in the universe that could neither be explained mechanically nor attributed to the individual agency of particular spirits. Being universal, the Spirit of Nature would presumably also be immobile. It does not seem to make much sense to conceive of something as *entering* a certain place—with or without resistance—if it is already everywhere. Or, finally, consider space itself. More felt that space was every bit as infinite and immutable as God himself. (This was of course no coincidence, given that, in More's mature opinion, they boiled down to much the same thing). But, if actual penetration must involve actual motion, namely the motion of the penetrable thing into something else, then it would seem that *penetrability*, taken as a capacity to penetrate, should require at least a capacity for motion. But a universal being—be it God, the Spirit of Nature, or space—does not even have that much. Consequently, it would seem that a universal being cannot be regarded as penetrable. Hence, it cannot be regarded as spiritual either. But this directly conflicts with just about the most central element in More's conception of such things.

So let us try a new tack. Perhaps, when two things become co-located, we should not simply ascribe responsibility for the penetration to the one that happens to be moving. Perhaps we should say that the penetrable one is the one that is genuinely *active* in causing such co-location. After all, as far as More was concerned, a body did not properly move itself, but was passively driven along by some spirit or other, either by its own soul or else by the Spirit of Nature. Active responsibility for instances of penetration, and consequently the attribute of penetrability itself, is therefore never going to fall to a body at all.

But this is still problematic. Let us return to the case where a body *A* moves into the otherwise unoccupied place of a spirit *B* (or, indeed, simply moves into an unoccupied part of space itself). It does not seem, in this case, that active responsibility for this occurrence can be attributed either to *A* or to *B*. The body *A* cannot be responsible, because Morean bodies are inactive things. But the spirit (or part of space) *B* cannot be responsible either. Remember More's principal objection against nullibism, that a spirit cannot act except where it is present. How, then, could *B* act upon *A* in order to drag it into its place, given that, *ex hypothesi*, *A* is as yet outside that place? The active cause of *A*'s motion into the place of *B* will be some third thing, *C*—as it might be, the soul of *A*. Now, in virtue of *C*'s activity, we can certainly say that *C* has penetrated *B*. This would just be an instance of the penetration of one spirit by another, a notion with which More was entirely comfortable. But what are we going to say about the original pair, *A* and *B*? Given that they were formerly in different places, and are now in the same place, we surely have to say that an act of penetration has occurred between them. If two things can become co-present without penetration, then it is hard to know what 'penetration' is even supposed to mean any more. But, since neither *A* nor *B* has been actively responsible for bringing about this state of affairs, then our attempt to understand penetration in terms of activity does not seem to fare much better than understanding it in terms of mere motion alone.

And so, however much *prima facie* appeal the idea of distinguishing spirits from bodies by treating the former as penetrable and the latter as impenetrable might be thought to have, serious problems arise when we attempt to explicate this notion in detail. And, it should be observed, these problems will equally arise if we frame things in terms of individual atoms instead of compound bodies. More's distinction between spiritual and material extension was, as noted at the outset, two-fold: spirits were supposed to be not only penetrable but also indiscerpible, while bodies were supposed to be impenetrable and yet discerpible. But, as we observed in the last section, although the discerpible-indiscerpible distinction might serve to separate spirits from *bodies*, it would *not* separate them from physical monads, themselves supposed to be indiscerpible. If the penetrability-impenetrability distinction cannot be rigorously spelt out, then the distinction between spirits and atoms will be even further undermined. Admittedly, there might well be a major quantitative difference between them, in that atoms are exceedingly tiny, whereas a spirit can be quite large, and can permeate an enormous number of atoms at once. But this difference in size is not essential. In the next section, we will look at More's notion of *self*-penetration. More believed that a spirit could contract itself, as one portion of its extension penetrated another; and he did in fact suggest that a spirit had the power to contract itself all the way down to the size of an atom. One clear difference would still remain between such a contracted spirit and a physical monad, namely that the former would still be self-active and the latter self-inactive. But that, it seems, would be *all* that remained, and More's hope of identifying some more fundamental difference, prior to any considerations of activity, would seem to be forlorn.

4 Self-penetration, Essential Spissitude and Hylopathia

As we observed in Chap. 2, More was happy to embrace Descartes' account of the contraction and dilation of a body, explaining such increases and decreases in size by analogy with a sponge. Bodies were just masses of atoms, and More did not believe that an individual atom could grow or shrink. A central plank in his argument for the existence of indiscerpible atoms was that there needed to be a finite lower limit to the possible size of anything at all; and atoms were necessarily at that limit. It is quite true that, if a compound body was actually to gain or shed some atoms, it would thereby dilate or contract through an increase or decrease in the total quantity of matter it possessed. But, if we assume a fixed and constant quantity of matter—i.e. a fixed number of atoms—then the only remaining way for the body to dilate or contract will be for the gaps between these atoms to widen or shrink (with some sort of extraneous fluid matter being forced into or expelled from the body's pores).

For spirits, however, the situation was quite different. More believed that a spirit *could* dilate or contract its substance in such a way as to make the very same quantity of immaterial substance occupy a larger or a smaller volume. An animated

body would grow over the course of its lifetime, in its own case by assimilating additional atoms from outside through nutrition. Such a body could also shrink by losing some of its atoms, whether naturally or (as in an amputation) violently. More's mature theory, following his rejection of holenmerianism, was that the animal's soul would be extended throughout this body, and that its own immaterial extension would terminate in the same boundaries as the material extension of the body. Consequently, as the body grew or shrank, the spirit would need to grow or shrink along with it. But spirits were essentially indiscernible. A spirit could not shrink by shedding parts of itself, because it was utterly impossible that these parts should be separated from the remainder. In the other direction, two spirits could not merge in such a way as to become unified into a single consciousness and life. Even God could not make two spirits into one, any more than he could make one into two, notwithstanding his omnipotence. Such operations were logically ruled out by the most basic facts about what it actually meant for something to be a spirit. Consequently, the absolute quantity of immaterial substance that a spirit possessed would need to remain precisely the same as it had been in the first moment of its creation; but this same quantity of substance would need to be capable of occupying a greater or a lesser spatial volume.

And so More explained this spiritual dilation and contraction in terms of self-penetration. Just as one spirit could penetrate another, so that the two of them would come to occupy the same place, so too could one portion of a single spirit's extension penetrate a different portion of that same extension, and occupy the same place as it. If a man was to have an arm amputated, for instance, the part of his spirit that had formerly been present in that arm, given that it could not be discerned from the remainder of his spirit, would need to draw back into the space occupied by the remainder of his body, and would penetrate the part of his spirit that was already present therein.³⁶ In the other direction, a spirit could dilate itself if two portions of its extension, which had formerly been penetratively overlapping, were to unpack themselves and spread out.

Now, with respect to bodies, the quantity of material substance that a body possessed could be straightforwardly analysed in terms of its volume, i.e. the total amount of three-dimensional space that it occupied, taking care to exclude from this total any extraneous matter that happened to be contained within the body's pores. But More could not analyse quantity of immaterial substance in the same way, on account of this possibility of the genuine contraction and dilation of an indiscernible spirit. So he needed some other way to flesh out the notion that the absolute quantity of a spirit was a constant. Hence, More introduced a new concept, which he called 'essential spissitude'. The quantity of a spiritual substance would be jointly defined by its three-dimensional volume in conjunction with its essential spissitude. There are, however, a couple of different ways of interpreting More's theory of essential spissitude. I shall lay these out side by side.

³⁶*Enchiridion metaphysicum*, vol. 1, p. 133 (ch. 28, §7, scholium).

4.1 *Essential Spissitude as a Dimension*

The way in which More's theory of essential spissitude is more commonly presented in the secondary literature is for it to be treated as a fourth dimension, closely analogous to the three spatial dimensions. Most of what More said about it does strongly support this interpretation, and some of his remarks arguably cannot make much sense on any other. In *The Immortality of the Soul*, for instance, More called essential spissitude a '*fourth Mode*', and he noted that it was 'as easy and familiar to my Understanding, as that of the *Three dimensions* to my Sense or Phancy'.³⁷ In *Enchiridion metaphysicum*, and again in a letter to John Norris, he went even further and did actually use the phrase 'fourth dimension', mentioning longitude, latitude, profundity and essential spissitude, all in the same breath.³⁸

This way of understanding essential spissitude is indeed extremely natural, given the role that the concept was supposed to be playing in More's system. If this possibility of self-penetration meant that the quantity of immaterial substance in a spirit could not be understood in terms of its three-dimensional volume, as the quantity of material substance in a body could, then why not just add an extra dimension? In the corporeal case, a body could very easily be shortened, without any genuine reduction in its overall quantity of matter, just as long as its cross-sectional area increased to compensate for this loss. So, likewise, when a spirit contracted itself spatially, whatever it lost in its three-dimensional volume, it could make up for by a proportional increase in essential spissitude, so that its *four*-dimensional volume might remain unchanged. Thus, wrote More:

the *Substance* is no more lost in this case, then when a string is doubled and redoubled, or a piece of wax reduced from a long figure to a round: The dimension of *Longitude* is in some part lost, but without detriment to the *Substance* of the wax. In like manner when one part of an *Extended Substance* runs into another, something both of *Longitude*, *Latitude*, and *Profundity*, may be lost, and yet all the *Substance* may be there still; as well as *Longitude* lost in the other case without any loss of the *Substance*.

And as what was lost in *Longitude* was gotten in *Latitude* or *Profundity* before; so what is lost here in all, or any two of the dimensions, is kept safe in *Essential Spissitude*: For so I will call this *Mode* or *Property of a Substance*, that is able to receive one part of it self into another.³⁹

As More proceeded to observe, the same notion of essential spissitude not only applied in cases of self-penetration, but would also come into play when one spirit penetrated a distinct spirit. Suppose that each had formerly occupied its own cubic foot of space, making a total of two cubic feet of spiritual extension altogether. After the act of penetration, both spirits would co-exist together in a single cubic foot of space.

³⁷*The Immortality of the Soul*, p. 6 (bk. 1, ch. 2, §11).

³⁸*Enchiridion metaphysicum*, vol. 1, pp. 121–122, 133 (ch. 28, §7, and the scholium thereto); Norris 1688, p. 158 (More to Norris, 19 January 1684/5). John Keill also characterises More as having treated it as a fourth 'dimension': Keill 1698, p. 6 (Introduction).

³⁹*The Immortality of the Soul*, p. 6 (bk. 1, ch. 2, §11).

In order to preserve the notion that no spiritual substance had been gained or lost in the process, but that it had merely been rearranged spatially, More would say that the essential spissitude at the shared place must have doubled, in order to compensate for the reduction in the total spatial volume.

One point to note about this dimensional interpretation of essential spissitude is that, whereas spirits could penetrate one another's three spatial dimensions, they could *not* be allowed to penetrate one another in this fourth dimension. What the postulation of a fourth dimension allowed was that spirits might share a three-dimensional place by stacking up in it, in a manner precisely analogous to the way in which, supposing a book laid on a table, its several pages can only share the same two-dimensional place by stacking up vertically, retaining their distinctness from one another by having different positions in the third dimension. If those pages were to occupy the same place in all three spatial dimensions, they would thereby coalesce into one. So, likewise, no matter how fully one spirit might penetrate another spatially, there would still need to be *some* respect in which they remained separate from one another. The fourth dimension of essential spissitude could provide such a respect—but only at the cost of weakening the analogy between it and the three spatial dimensions. Immaterial substance could be penetrable in those three respects, but it had to be impenetrable in this fourth one. Distinct spirits might share the same positions along all three spatial axes, but they would need to occupy different positions along the axis of essential spissitude.

4.2 *Essential Spissitude as Density*

Although most of what More said about essential spissitude does indeed give the impression that he was understanding it through an analogy with the three spatial dimensions of length, breadth and depth, an alternative interpretation also lurks in his treatment of the concept. Perhaps the best way of rendering that archaic term 'spissitude' into more modern English would be to translate it as 'thickness', for the latter term carries precisely the same ambiguity as can be found in More's use of the former. On the one hand, the word 'thickness' does indeed denote a spatial dimension. Two books can have just the same cross-sectional area: but, if one of them contains more pages than the other, we will express this by saying that it is a 'thicker' book than the other. On the other hand, when we are dealing with fluids, we also use the word 'thickness' to denote density or viscosity. The more that a bowl of soup resists our efforts to stir it, the thicker we will say it is.⁴⁰

⁴⁰Alexandre Koyré describes More's essential spissitude as 'a kind of spiritual density, fourth mode, or fourth dimension of spiritual substance' (Koyré 1957, p. 129), but he does not elaborate on the tension—if it can be called that—between these different ways of conceiving essential spissitude, by analogy with density or with dimension. Tulloch calls it 'essential consistency' (Tulloch 1874, vol. 2, p. 384). See also Burt 1932, pp. 129–130; Henry 1986a, p. 177.

As a matter of fact, if we look at the wider use of the term ‘spissitude’—for, unlike so many others (including the compound phrase, ‘essential spissitude’), this one was not actually a term of More’s own invention—we find that the density interpretation was vastly more common. The Oxford English Dictionary gives the meaning as ‘density, thickness, compactness’, and the examples of usage that it cites for this and cognate terms nowhere suggest the dimensional conception of ‘thickness’ at all. Likewise, the Latin ‘spissitudo’ and related words—themselves rare—also seem to have been used to designate density, and never to have carried a dimensional connotation.⁴¹ It is worth just mentioning that, in French, there does exist a fourteenth-century precedent for a dimensional meaning for ‘spissitude’. In *Le livre du ciel et du monde*, Nicole Oresme used the term to denote the third dimension of physical extension: ‘Troys dimensions ou mesures sont longitude et latitude et spissitude ou parfondesce’.⁴² But this dimensional use for the term seems to have been original with Oresme, and it never caught on, even in French, much less in English.⁴³

We can even find More himself using the term ‘spissitude’ (as opposed to ‘essential spissitude’) to denote physical density or viscosity. For instance, in *The Immortality of the Soul*, having just mentioned ‘the *Thickness* of the Air’, and being just about to mention its ‘consistency’, More also used the expression ‘the *Spissitude* of the Air’.⁴⁴ Likewise, in his Latin *Philosophematum de principiis motuum naturalium*, More used expressions like ‘*Materiae Spissitudinem & Raritatem*,’ ‘spissitudinis densitatisve,’ and ‘*densa sive spissa*’, making the equivalence between spissitude and density, and its contrast with rarity, pretty plain.⁴⁵ (This also seems to be how Philip van Limborch was using such Latin terms when he discussed essential spissitude with More in a letter of 1674. Limborch understood it to be More’s opinion that, when a spirit contracts, ‘its essence becomes more dense [*spissioem ejus reddi essentiam*]; and when it expands, it is less dense [*minus esse spissam*]).⁴⁶ Or, again, we might consider More’s use of the term ‘conspissation’, a word with evident links to the term ‘spissitude’. By ‘conspissation’, as might be recalled from Chap. 3 (pp. 85–86), More meant a process of congealing.⁴⁷ Although essential spissitude was not supposed to be the *same* property as spissitude *tout court*—the former property pertained to spirits, the latter to bodies—the most natural expectation would surely be that More meant

⁴¹ See Latham 1965, p. 448.

⁴² Oresme 1968, p. 46. See passim in pp. 46–49 (bk. 1, ch. 1, fols. 4a–4c). Oresme’s English translator does indeed translate the French term as ‘thickness’.

⁴³ See the editors’ ‘Selected List of Technical Neologisms’, appended to Oresme 1968, p. 772 with the comment at p. 763. Some examples of usage of the French term (including Oresme’s own) are listed in Godefroy 1881–1902, vol. 7, p. 572b. But the term does not exist at all in most other French dictionaries.

⁴⁴ *The Immortality of the Soul*, p. 139 (bk. 2, ch. 16, §§3–4). This was noted by Henry 1986a, p. 177.

⁴⁵ *Opera omnia*, vol. 2.1, pp. 344–345 (*Philosophematum de principiis*, §15).

⁴⁶ Limborch to More, 30 December 1674, quoted in Simonutti 1990, pp. 209, 216 n. 61.

⁴⁷ See *The Complete Poems*, pp. 92a–b, 160a (*Democritus Platonissans*, st. 13; The Interpretation General: ‘Body’); and *The Immortality of the Soul*, pp. 169–170, 180 (bk. 3, ch. 3, §2; ch. 5, §2).

for them to be understood analogically. So, if spissitude was supposed to be a kind of physical density, then the most natural assumption would seem to be that essential spissitude ought to be understood as a kind of spiritual density.

Although More was much more explicit in describing essential spissitude as a fourth dimension, than he was in describing it as a form of spiritual density, he did occasionally make reference in this context to how, for instance, ‘*spiritual Subtilty*, as well as *Amplitude*, is given in measure to created *Spirits*.’⁴⁸ And, when we look at certain other elements in his wider philosophical theory of self-penetration, we find that they do seem to fit rather better with the density conception. In particular, his concept of ‘hylopathia’ makes much more intuitive sense on that conception than on the dimensional one. This was a quality peculiar to spirits, but analogous to the corporeal quality of impenetrability. In More’s opinion, the greater the amount of spiritual substance that was contained in a certain place, the more difficult it would become for any more to work its way in.

4.3 *Hylopathia and Saturation*

In order to understand hylopathia, the first thing to observe is that More believed that the substance of every created spirit was finite. (The Spirit of Nature might have been an exception to this: but, as a matter of fact, More was rather cagey about whether the Spirit of Nature was infinite or finite. He certainly felt that it was *universal*, but that only meant that it pervaded the whole of the created universe—a universe that More, the period of *Democritus Platonissans* notwithstanding, does seem to have regarded as finite). There would therefore need to be an upper limit to the possible spatial dilation of a created spirit. It could not extend itself to an infinite size, for it would thereby manage to achieve an infinite quantity of substance. But there was also a lower limit to its contraction. Whatever one thinks about the soundness of More’s argument for the existence of physical atoms, based on the idea that there needed to be a size such that nothing could exist smaller than it, one thing that is clear about this argument is that it did not rest on any premises that were peculiar to the physical case, but ought to have a completely universal scope. A spirit could not actually contract infinitely, so as to exist entirely at a single mathematical point, any more than a body could be made that small by division: for such points were pure nothings. Discussing these issues with Richard Baxter, More acknowledged that even Baxter accepted this, and he applauded him for doing so: ‘as you very well observe with *Scaliger* before you, a Spirit can neither extend it self *in infinitum*, nor contract it self *in puncti oudenotēta*, into the *nullity of a point*.’⁴⁹

⁴⁸*Two Choice and Useful Treatises*, second part, p. 218 (*Annotations upon the Discourse of Truth*, The Digression).

⁴⁹*Saducismus Triumphatus*, p. 209 (*An Answer to a Letter of a Learned Psychopyrist*, §9). More had much earlier made the same point, again with a reference to Scaliger, in his correspondence with Descartes: *Epistolae quatuor*, p. 76/AT 5:304 (More to Descartes, 5 March 1649).

But now, given that the reason why essential spissitude was postulated in the first place was to establish a way of preserving what had seemingly been lost when a spirit contracted spatially, together with a resource to provide what it ostensibly gained when it dilated, it was entirely natural that there should turn out to be upper and lower limits to the possible extent of a finite spirit's essential spissitude too. A spirit's spatial dilation necessitated a reduction in its essential spissitude. But, if a spirit could not expand to infinity, then its essential spissitude would never be reduced to zero either. (And there was also no need for it to have had an infinite essential spissitude to begin with, upon which to draw). And, if it could not contract infinitely, then its essential spissitude would never need to rise to infinity in order to compensate for such a contraction. Perhaps More did not have a fully rigorous proof that a spirit's essential spissitude *could* not be infinite or zero, but this was certainly his opinion, and it was reflections like these that led him to develop his theory of hylopathia.

More defined hylopathia as: 'A power in a Spirit of offering so near to a corporeal emanation from the Center of life, that it will so perfectly fill the receptivity of Matter into which it has penetrated, that it is very difficult or impossible for any other Spirit to possess the same; and therefore of becoming hereby so firmly and closely united to a Body, as both to actuate, and to be acted upon, to affect, and be affected thereby.'⁵⁰ If the essential spissitude of the spirit (or spirits) in a certain place could not rise infinitely, then obviously there would need to be some finite limit to their increase. But More additionally felt that, as this limit approached, each new rise in essential spissitude would become harder to achieve than the last one had been. When there was very little essential spissitude in a place, it was very easy for a spirit to penetrate it. When there was a lot, then further penetration would be proportionately more difficult. In the ordinary case of a human soul, spread throughout its body, it was merely very difficult for another spirit to enter that same body. And it was lucky for us that it was very difficult, for otherwise human souls could just glide in and out of one another's bodies at will, and havoc would ensue. Hylopathia allowed each of us to enjoy a certain autonomy over our own body, by preventing other spirits from coming in and taking over. But such penetration could still occur, if we happened to encounter a powerful enough spirit. As More pointed out, 'Magicians and Daemoniacks' could effect a hostile takeover of someone's body.⁵¹ More was a firm believer in the stories of demonic possessions, both Biblical and modern. In his view, what such a possession amounted to was the penetration of a human soul by a more wicked and powerful spirit, such that the two would come to exist in the same place and would vie for control over the body that was also present there.

However, since there was a finite limit to the essential spissitude that could be present at a certain place, More believed that it would eventually reach a point of 'saturation'. When the hylopathia of the spirit or spirits contained therein rose to a

⁵⁰*An Antidote Against Atheism*, p. 189 (Appendix, ch. 3, §8).

⁵¹*An Antidote Against Atheism*, p. 228 (Appendix, ch. 3, §8, scholium).

certain level, it would no longer be merely 'very difficult' for further spirits to force their way in (or for those that were already there to contract any more than they had already done). It now would become impossible. When a place became saturated with spirit, it would be unable to admit any further increase in essential spissitude at all.

It is here that the density interpretation of essential spissitude, as opposed to the dimensional interpretation, fits especially well. On the latter interpretation, although it seems fair to suggest that a single finite substance should not be able to make itself infinite in essential spissitude, any more than it could do so in length, breadth or height, there is no clear reason why an unlimited number of other, distinct spirits should not be able to penetrate it, and thereby increase the essential spissitude at its place beyond any finite limit. Moreover, even if one could make sense of a non-arbitrary saturation-point on this interpretation, there does not seem to be any intuitive reason to suppose that it should become progressively harder and harder for further penetration to take place as this point is gradually approached, let alone any philosophical argument to demonstrate that this *must* be so. The density interpretation, however, makes More's notions of hylopathia and saturation seem very natural indeed. They seem to be closely modelled on analogous phenomena in the material realm. A quantity of smoke, for instance, containing lots of large pores and very little solid matter, will be able to contract very easily by closing up those pores, and it will readily yield to other fluids as they attempt to insinuate themselves into the pores. But, if the particles of the smoke come to be packed together more closely, leaving only very small pores, the resulting heap of soot will be much more fixed, and will put up more resistance to further contraction or to attempts by extraneous matter to enter into it. If, through the application of an ever greater force, it is compressed still further, and finds itself bound first into solid charcoal, and then finally into diamond, it will put up progressively more and more resistance. Eventually—contemporary physics notwithstanding—it might in principle be possible to reduce the body to a state wherein no gaps at all would be left between its atoms, in which case it would become absolutely impossible for the body to contract any further, and it could also become perfectly hard. These two cases, spiritual and material, are not the same, for the 'penetration' involved is a genuine co-presence in one case and a mere filling up of pores in the other. Nevertheless, they do have the same overall form, and it does seem that this kind of parallel was guiding More at least as much as any thoughts about dimensions.

As we noted earlier, More has often been accused of a sort of quasi-materialism, granting rather too many of the characteristic properties of body to spirit as well. Although it would certainly be too strong to rest such a charge simply on the ascription of extension to spirits, it is when More comes to discuss essential spissitude and hylopathia that one begins to wonder whether such a charge might indeed be justified. The viscosity conception of essential spissitude, in particular, makes such suspicions even stronger. After all, did not More himself declare, in the above definition of hylopathia, that spirits had powers of offering emanations from their centres that were 'so near to' being corporeal?

Of course, More himself still strongly resisted any suggestion that his spiritual theory was materialistic, or even quasi-materialistic. Even when a spirit's essential

spissitude became so great that it resisted all further penetration, More insisted that this was actually *very* unlike the impenetrability that characterised body.

For these two Spirits, suppose, contracted to the utmost of their natural limits, may naturally avoid the entering one another, not by a dead *Antitupia* as in Bodies or Matter, but by a vital Saturitie, or natural Uneasiness in so doing. Besides that, though at such a contracted pitch they are naturally *impenetrable* to one another, yet they demonstrate still their *Spirituality*, by *Self-Penetration*, haply a thousand and a thousand times repeated. And though by a Law of life (not by a Dead *Antitupia*), they are kept from penetrating one another, yet they both in the mean time necessarily penetrate Matter, as undergoing the diverse measures of *essential Spissitude* in the same. So that by the increase of that *essential Spissitude*, they may approach near to a kind of *Hylopathick* disposition of *Impenetrability*, and thence, by the Matter of the Universe (out of which they never are) be curb'd from contracting themselves any further than to such a degree; and I noted at first, that *spiritual Subtilty*, as well as *Amplitude*, is given in measure to created Spirits. So that *Penetrabilitie* is still a steadie Character of a Spiritual Essence or Substance, to the utmost sense thereof.⁵²

To a certain extent, More does have a point. No body can ever penetrate another body in the sense of coming to occupy the very same region of space at the same time. A spirit which has contracted itself to the point of saturation (which, as More points out, does at least suggest that it *was once* self-penetrable, even if it is no longer so) cannot penetrate another spirit or be penetrated by it. What it *can* still do, however, is come to occupy the same dimensions as a certain *body*, just as long as no other spirit happens to be there. Remember that we are understanding 'penetrable' as meaning 'able to penetrate *something*', and 'impenetrable' as meaning 'unable to penetrate *anything at all*'. So even a saturated spirit could therefore still be regarded as penetrable, while a body could still be regarded as impenetrable. Although the doubts raised about More's theory of penetrability in the last section do still remain, these new notions of hylopathia and saturation need not do any *additional* damage to the coherence of his distinction between body and spirit.

4.4 *Essential Spissitude and God*

As we saw in the last chapter, after his initial adherence to holenmerianism, More came to the conclusion that the divine substance really was extended, with parts outside parts, albeit only notional parts that arose merely out of the partial consideration of the indiscernible whole. But there were some important differences between the extension of a created spirit and that of God himself. For one thing, there was the fact that God's amplitude was infinite whereas created spirits—indeed, all creatures as such, except just possibly for the Spirit of Nature—could only manage to achieve a certain circumscribed presence. But, besides this quantitative difference, there were also some major qualitative differences.

⁵²*Two Choice and Useful Treatises*, second part, pp. 217–218 (*Annotations upon the Discourse of Truth*, The Digression).

First, whereas the extension of a created spirit was mobile, that of the divine spirit was not. It was in fact essential to a created spirit that it should have the power to move and to change not only a body but also itself. God, on the other hand, was utterly immutable. His extension could not move as a whole, on account of its infinity: there was nowhere for it to move to, because it was already everywhere. And the various individual parts of this extension could not shift about in relation to one another either, because any such change would need to develop in time, and God was non-successively eternal. In addition, for them to be allowed to change places would require a more fundamental frame of reference whereby their places might be defined, but More countenanced no such thing.

Second (and related to this), although penetrability as such did pertain both to God and to created spirits, the notion of *self*-penetrability threw up another important difference between them. The way in which a created spirit would contract, by self-penetration, would be for one part of its extension to *move* to overlap another part. Therefore, given that the various spatial parts of God's extension were immobile, one such part would never be able to penetrate another. God extension was not only infinite: it was *necessarily* infinite. His infinite and immutable extension, therefore, could neither contract nor dilate. As More put it: '*Self-penetration* cannot belong to God, because it is impossible any thing should belong to him that implies imperfection, and *Self-penetration* cannot be without the lessening of the presence of that which does penetrate it self, or the implication that some parts of that Essence are not so well as they may be; which is a contradiction in a Being which is *absolutely Perfect*.'⁵³ Infinity and immutability were both essential to God, and both ruled out the very possibility of his ever penetrating himself.

Given that More had developed his theory of essential spissitude specifically to deal with cases of spiritual contraction and dilation, there was no theoretical need for him to ascribe any essential spissitude to God, given that God admitted of neither of these. But there were also positive reasons why God *could* not have any essential spissitude. For a start, he certainly could not have variable degrees thereof. If he possessed essential spissitude at all, it could not be of the kind that finite spirits had, capable of rising or falling through various finite levels. This was partly down to his immutability, but also partly just because any sort of finiteness was utterly alien to him. According to our two ways of understanding the notion of essential spissitude, as something analogous either to a spatial dimension or to density or viscosity, God's essential spissitude might be regarded as either infinite or zero: but it could not be anything in between.⁵⁴

Let us try these two interpretations in turn, and see where they get us: first, the dimensional interpretation. Now, given that God was (according to More) infinite in the three spatial dimensions, it is clear that extension along those three dimensions had to qualify a perfection—for otherwise God would not have possessed such

⁵³*The Immortality of the Soul*, p. 26 (bk. 1, ch. 7, §2). The 1712 edition has '... the lessening the presence...': I have reinserted the word 'of' from the 1662 edition.

⁵⁴Amos Funkenstein observes that More was forced to deny that God had any essential spissitude, but he also suggests in a footnote: 'Perhaps it would be more precise to say: God's spissitude is immense.' (Funkenstein 1986, p. 79 and n. 15). He does not, however, elaborate on this.

extension. It would then appear that extension along any fourth dimension comparable to these should also qualify as a perfection; and, from this, it would naturally follow that God's essential spissitude should be similarly infinite.

But it would seem that, if God was going to be infinitely extended through a fourth dimension of essential spissitude, in just the same way as he was infinitely extended through the other three dimensions, then his presence therein would undermine the very possibility that there should be any created spirits at all. I said above that, when one created spirit penetrated another in three-dimensional space, its essential spissitude could not likewise penetrate that of the other, but would need to stack up on top of it in the fourth dimension—just like the pages of the book, which were only able to share the same two-dimensional place, while nevertheless retaining their own individual identities, by stacking up in different positions along the third axis. Now, if God occupied the whole of the fourth dimension with his infinite amplitude, then either created spirits would be able to penetrate him (or vice versa) in this dimension as well as in the other three, or else they would not be able to do so. But, if they could not penetrate (or be penetrated by) his infinite essential spissitude, then there would be nowhere for their own quantities of essential spissitude to go. There would be no possibility of stacking them on top of a pile that, by already being infinitely high, had no top. If, on the other hand, they *could* penetrate (or be penetrated by) his essential spissitude—which, it is worth pointing out, would make his own essential spissitude profoundly unlike that of created spirits, and, hence, arguably unintelligible—and exist within it in just the same way as they comfortably existed in the various portions of his three-dimensional amplitude, then the problem would now be that they would seem to face total assimilation into the divine substance. Created spirits would turn out just to be parts of the one infinite spirit itself, rather than distinct (though dependent) substances, and More certainly would not have accepted that conclusion. On this dimensional interpretation of essential spissitude, the only way for three-dimensionally co-located created spirits to retain their distinctness from one another is by stacking up along the fourth dimension of essential spissitude. If the quantity of substance in a finite spirit is going to be measured in terms of its three spatial dimensions plus its essential spissitude, and if it can share all three of those spatial dimensions with something else, then the only way for it to have a quantity and an identity of its own will be for it not to share its essential spissitude with anything else, neither with another created spirit, *nor with God*. A finite spirit could, of course, still be distinguished from the divine substance as a whole, for that extended infinitely further than it did. However, if the spirit was going to share all four of its dimensions with some finite portion of God's substance, then its substance would no longer seem to have any individuating characteristic whereby its distinctness from *that portion* could be established. More would not be satisfied with the suggestion that maybe it could be distinguished from it by reference to *modes* peculiar to itself. That would be tantamount to Spinozistic pantheism, which More vigorously rejected in his *Refutation of Spinoza*. What, More would wish to know, was the *substance* to which these modes were attaching themselves? On this conception of God's amplitude, as wholly enveloping created spirits in all four of their dimensions, the only answer that could be given was that these modes

attached to portions of *his* substance. The attribution of infinite essential spissitude to God, therefore, would appear to interfere with his ability ever to create spirits that were properly distinct from him.

What then of the alternative interpretation of essential spissitude? When we shift to understanding essential spissitude on the model of physical density or viscosity, it seems that essential spissitude will now turn out to be an *imperfection*. The basic notion that immaterial substance was superior to material substance was partially based around the fact that the former was sublimely fluid and penetrable, whereas the latter was coarse and impenetrable. Even though the form of impenetrability that arose from the essential spissitude and hylopathia of a saturated spirit was not the same as that which characterised bodies, it was at least closely analogous to it. God himself, who necessarily permeated all of his creatures, spirits as well as bodies, could not be ascribed the merest trace of *any* form of impenetrability with respect to any of those creatures. Far from having infinite essential spissitude, then, he would need to be wholly devoid of such spiritual coarseness.

Now, Richard Baxter complained to More: ‘I should hope that your Definition of Spirit excludeth not God; and yet that you do not think that his Essence may be contracted and dilated. O that we knew how little we know!’⁵⁵ More’s general distinction between bodies and spirits *was* supposed to be exhaustive. It *was* supposed to include God, on the spiritual side of the divide. And, at least in some presentations, More *did* draw it up in terms of, among other things, self-penetration, contraction, dilation and essential spissitude, writing that ‘this faculty of *contracting and dilating* of themselves is in the very essence and notion of all *Spirits*.’⁵⁶ And yet we find that, in point of fact, not a single one of these things applies to the divine spirit. That did not, of course, move God over to the material side of the divide, for he did still differ from bodies in other, tremendously important ways. But what it did do was undermine the tidiness of this two-sided division, for it forced More to admit a third kind of being and, crucially, a third kind of extension, which differed from the other two not only quantitatively but also qualitatively.

When More actually responded to the point that Baxter had raised, he wrote:

But now for the *Contraction* and *Dilation* of Spirits, that is not a propertie of Spirits in general as the other are, but of *particular created* Spirits, as the Doctor has declared in his Treatise of the *Immortalitie of the Soul*. So that that hard Question is easily answered concerning *Gods* contracting and dilating himself; That he does neither, he being no *created* Spirit, and being more absolutely perfect than that any such properties should be competible to him. And it is reasonable to conceive that there is little actually of that propertie in the *Spirit of Nature*, it being no *particular* Spirit, though *created*, but an Universal one, and having no need thereof.⁵⁷

⁵⁵Baxter 1682, p. 78.

⁵⁶*The Immortality of the Soul*, p. 227 (bk. 3, ch. 14, §6).

⁵⁷*Two Choice and Useful Treatises*, second part, p. 215 (*Annotations upon the Discourse of Truth*, The Digression). More proceeded to explain that (in contrast to the divine case), ‘there is no Repugnancie at all, but the *Spirit of Nature* might be contracted to the like *Essential Spissitude* that some *particular* Spirits are; but there is no reason to conceit that it ever was or ever will be so contracted, while the World stands.’ (p. 216). See also *The Immortality of the Soul*, p. 23 (notes to bk. 1, ch. 6, §§5, 8).

So More was prepared to acknowledge that these notions were not essential to immaterial substance as such after all. Instead, they served to divide the general notion of a spirit into two separate subspecies. Now, the concession that there were (at least) two qualitatively different kinds of immaterial extension did not mean that these two together could not still be jointly distinguished from material extension. However, what it *did* mean was that More could not appeal to these supplementary notions of self-penetration, essential spissitude and the like in order to flesh out his basic account of that fundamental distinction between immaterial and material extension. For his account of that distinction, the only things left for More to fall back on were his original four notions: penetrability and impenetrability, discernibility and indiscernibility. And, as I discussed earlier, notwithstanding the elegance of More's scheme, these four notions were not quite up to the task he demanded of them.

5 The Divinity of Space

Even if we have ultimately found More's mature account of the distinction between material and spiritual extension to be somewhat wanting, the basic idea is clear enough. Bodies will be compounds of physical monads which, thanks to their own individual impenetrabilities, cannot all coincide in one spot, but will need to be spread out, one outside another. The body that results out of this juxtaposition of parts outside parts will inherit its own impenetrability from theirs, and it will also find itself susceptible to real division back down into its component parts. A finite spirit, meanwhile, will also be extended, but this extension will not be the result of a union between really distinct parts outside parts. The spirit will be indiscernible: but, nevertheless, it will still be possible to contemplate a variety of notional parts within it, one outside another. It will also be penetrable, and able to coexist in the same place as either a body or another spirit. God, meanwhile, will be infinitely extended with the same kind of indiscernible, notional parts outside parts as characterise created spirits, and he will penetrate everything in the universe.

This scheme was, in fact, almost entirely More's own invention. Up until his time, the predominant theory of spiritual presence had been the holenmerian one, whereby a spirit would be present in a certain place, not by being spread throughout it with parts outside parts, even indiscernible ones, but rather by being wholly present at each and every part at once. Here and there, a handful of nullibists had offered an alternative account, whereby spirits were not substantially present at all. But the idea that it might be possible to identify a form of extension, truly worthy of that name, that could be applied to spirits without any detriment to their immateriality, was genuinely new. If More's theory encountered a few teething problems along the way, he can surely be forgiven for that. He is indeed due a great deal of credit for getting as far as he did, down this new path that he had opened up.

But then perhaps an even greater innovation than More's theory of spiritual extension as such is the theory he developed about the relation between the divine

extension and space itself. In Chaps. 3 and 4, we saw how More shifted from believing that space was an infinitely unreal Hyle, amounting to nothing over and above the possibility that real beings might be created in it, to instead believing that space was actually very real indeed. In Chap. 5, we saw how More was simultaneously shifting from believing that God was wholly present in each part of the physical world, to believing that he was spread throughout it with (indiscernible, penetrable) parts outside parts. Neither of those earlier opinions would have permitted any sort of identification between space and God. God was certainly infinitely perfect; therefore, if space was infinitely imperfect, they could scarcely be identified with one another. On the contrary, nothing could be more opposite. At the same time, space was certainly not wholly present in each part of the physical world: therefore again, if God was thus present, no sort of identification between the two was going to be available. As we saw, More did briefly toy in 1655 with the idea that space might be identified with God, in a single paragraph from the Appendix to *An Antidote Against Atheism* (ch. 7, §6). But it was not until 1659's *The Immortality of the Soul* that he firmly turned his back on his own earlier holenmerian account of God's omnipresence. And it was not until *after* 1662's Appendix to *Conjectura Cabbalistica* that he firmly turned his back on his own earlier opinion that space could be understood as amounting merely to the potentiality of body. Only once More was firmly committed to *both* of these reversals was the way finally clear for him to develop his mature theory of divine space, one of the theories for which he is nowadays best remembered.

Alan Gabbey has suggested that *The Immortality of the Soul* marked a terminus to More's philosophical programme, and that his subsequent interests and writings were more theological, with less in the way of philosophical novelty.⁵⁸ But, although it is true that More's theological works did exceed his post-1659 philosophical output in terms of volume, philosophical works like the *Divine Dialogues* and *Enchiridion metaphysicum* did considerably more than merely 'to repeat or to elaborate earlier themes and arguments, rather than fulfil the promise of works written before More entered his theological phase.'⁵⁹ For here we see an example of one of More's most innovative and most celebrated notions of all, that of divine real space, which is *only* to be found in these later works. It *could* not have been present in his earlier works, *The Immortality of the Soul* not excepted, because it rested on these *two* principles. It was not enough that God should possess the same kind of extension as that which defined space. Space as such also needed to be *real* enough to be worthy of an association with an infinitely perfect God. The latter point was one that More only finally settled firmly on very late on in his career.

But, the more he thought about the nature of space, the more perfect it struck him as being; until, finally, he was able to satisfy himself that it was indeed perfect enough to qualify as divine. For let us reflect on some of the attributes that More believed space to possess. First of all, even in the earlier portion of his career, he was

⁵⁸Gabbey 1982, pp. 222–231.

⁵⁹Gabbey 1982, p. 173.

satisfied that space was infinite and omnipresent. Even if space amounted to nothing more than the potentiality of body, More certainly believed that there could be no natural limit to the power of an omnipotent God to create as much body as he liked. That is to say, this potentiality was infinite. Even more clearly, when More decided in *Democritus Platonissans* that the extension of the *actual* physical world was infinite, the potentiality to which it corresponded was certainly going to need to be infinite too. More also felt that space as a whole, and each individual part thereof, were all immobile. We might recall his comment, in a 1651 letter to Anne Conway, that ‘space is immovable, and impassible. All the porters in London will not be able to carry one foot square of it from Cheepsyde to Charing Crosse.’⁶⁰ And its existence also appears to have been necessary. Remember his remark about how, although we could ‘dis-imagine’ any given corporeal being, it was not likewise possible for us even so much as to conceive of the non-existence of space itself, because that idea was presupposed in the idea of anything that we might conceive.⁶¹ Given that all creatures needed to be related to space, it followed that space itself needed to exist (in whatever manner was appropriate) *prior* to the creation of anything at all. And thus it would appear to be uncreated and eternal.

All in all, Morean space seems to have had an awful lot in common with God. Once More had removed the two final impediments to an association between the two things, promoting space from potentiality to actuality, and attributing to God the same kind of extension as pertained to space itself, the way was at last clear for him to draw the natural conclusion:

For this infinite and immobile extension will be seen to be not something merely real (which we have noted in the last place) but something divine after we shall have enumerated those divine names or titles which suit it exactly, and with the greatest certainty make it not possible to be nothing, seeing that so many and such excellent attributes fit it. Of which kind are those which follow, which metaphysicians specifically attribute to First Being. Such as one, simple, immobile, eternal, complete, independent, existing from itself, subsisting by itself, incorruptible, necessary, immense, uncreated, uncircumscribed, incomprehensible, omnipresent, incorporeal, permeating and encompassing everything, Being by essence, Being by act, pure Act. There are not less than twenty titles by which the divine numen should be designated, which most aptly suit this infinite internal place which we have demonstrated to be in the universe.⁶²

The important point was not *merely* that God and space had a lot in common. In general, there is no valid inference from close similarity to numerical identity. But the argument here hinged (albeit implicitly) on the incommunicability of several, at least, of the attributes to which More’s twenty titles referred. It was standardly believed that, although there might have been some attributes that God and his creatures could both possess, at least analogically, there were others that God alone could have. He could not communicate these attributes to anything distinct from

⁶⁰*Conway Letters*, p. 488 (More to Conway, 5 May 1651)

⁶¹*An Antidote Against Atheism*, p. 199 (Appendix, ch. 7, §1); *Divine Dialogues*, pp. 54, 59, 61 (dial 1, §§27, 28); *Enchiridion metaphysicum*, vol. 1, pp. 56–57 (ch. 8, §6).

⁶²*Enchiridion metaphysicum*, vol. 1, p. 57 (ch. 8, §8).

himself, because the mere possession of such attributes would be enough to make a being qualify as divine. As Anne Conway put it: ‘The divine attributes are commonly and correctly divided into those which are communicable and those which are not. The incommunicable are that God is a being subsisting by himself, independent, immutable, absolutely infinite, and most perfect. The communicable attributes are that God is spirit, light, life, that he is good, holy, just, wise, etc.’⁶³ Now, in More’s list of twenty attributes, a couple do seem to be communicable, such as simplicity and incorporeality. Leaving aside the materialists and the pantheists, pretty much all other philosophers of the period would agree that those features could pertain to a created spirit. But most of the others seem to fit the bill as incommunicable attributes. God alone, many philosophers (including More) would insist, could be uncreated, independent and so forth. So, if such attributes could be demonstrated to hold of space—as More was satisfied that they could—then it would follow that space could not be anything distinct from God.

Admittedly, More was now (in 1671) a bit more circumspect about the precise nature of the association between space and God than he had been in that isolated conjecture from 1655, where he had speculated that maybe space simply *was* God. Instead of proposing an unqualified identification between space and the divine substance, he now preferred to treat it merely as one aspect thereof: ‘that *inmost Extension* or *Amplitude* which will necessarily remain after we have imagined all Matter, or whatever else is removeable, removed or exterminated out of the World is to be look’d upon as the *permanent Expansion* or *Amplitude* of the *radical Essentiality* of God.’⁶⁴ Our conception of space would only amount to a very imperfect apprehension of the divine substance, because it missed out so many of his other attributes—his wisdom, his goodness, and so forth. Nevertheless, in thinking about the real space that provided the places of things, we could at least achieve *some* apprehension of the real divine presence: ‘The object of our mind which we say to be internal space is only a slight and diluted, and general, shadow representing the nature of the uninterrupted divine presence under the obscure light of our intellect, until one would attend it more vigilantly and approach the thing to be contemplated more closely.’⁶⁵

6 Divine Space Before and After Henry More

Just after that well-known passage about the ‘twenty titles’ that seemed to pertain equally to space and to God, More noted ‘that the same divine numen is called among Cabbalists *Makom*, that is, place’.⁶⁶ The ancient Hebrews had clung to a

⁶³ Conway 1996, p. 45 (ch. 7, §2).

⁶⁴ *Divine Dialogues*, p. 289 (dial. 3, §40).

⁶⁵ *Enchiridion metaphysicum*, vol. 1, p. 67 (ch. 8, §13, scholium). See also pp. 61, 68 (ch. 8, §15; §13, scholium), and *Divine Dialogues*, pp. 55, 530 (dial. 1, §27; scholium to §32).

⁶⁶ *Enchiridion metaphysicum*, vol. 1, pp. 57–58 (ch. 8, §8); see also pp. 59 and 63–64 (§10 and its scholium).

conception of something approaching the Adamic language, where the name of a thing would actually reveal something about its own intrinsic nature. One of the Hebrew names that had been given to God had indeed, in its more literal sense, meant 'place', which gave rise to a tradition whereby God would be regarded as containing the created world locally within himself. In the third century C.E., for instance, Rabbi Ammi had considered why God should be called 'the Place', and his answer was that God was the place of the world.⁶⁷

The idea that God permeated the universe was also enshrined several times in scripture itself, in both the Old and the New Testaments. For instance, at Jeremiah 23:24: 'Do I not fill heaven and earth? saith the Lord'. More importantly, at Acts 17:27–28: 'he be not far from every one of us: For in him we live, and move, and have our being; as certain also of your own poets have said, For we are also his offspring'. As a matter of fact, just about *every* early modern philosopher cited Acts 17:28 at some point or other in their works, to support one position or another. When discussing the nature of God's omnipresence in particular, many of them would additionally allude to the 'Makom' tradition for support.⁶⁸ To take just one example: in the course of an otherwise unremarkable discussion of the divine immensity from the 1630s, the Calvinist scholar William Twisse ('whom if Anagrams may be credited, you may stile *WISEST*!')⁶⁹ referred to 'Makom' on four separate occasions, and to Acts 17:28 on six.⁷⁰ More himself cited the two things side by side in the *Divine Dialogues*, and again in one of the scholia to *Enchiridion metaphysicum*.⁷¹

There were, of course, plenty of different ways to interpret texts and concepts such as these. One possibility would be to take notice of the final clause of Acts 17:28, and to suggest that the 'live, and move, and have our being' part should merely be taken as a roundabout way of stating that we were created by God. We only exist 'in' him in the sense in which a cause can be said to 'contain' its effects. In a 1641 discussion, preached at Trinity College, Cambridge, and entirely devoted to Acts 17:28, John Sherman wrote: 'In him we live, and move, and have our being: FOR, because *we are his offspring*. This sense is good, as Hushai said to Absalom of Achitophels counsel.' But he then continued: 'it is good, but not at this time. Severall senses in Scripture may be true in the *thesis*, but not proper in the *hypothesis*, in the particular *skhēsis* and connexion of the words; so neither this.'⁷² In mid-seventeenth-century Puritan England, the profound intimacy of God's relationship with man and the world was emphasised with unusual fervour. Even

⁶⁷Copenhaver 1980, p. 493.

⁶⁸The principal study of this is Copenhaver 1980. But also see Wolf 1950, p. 666; Lichtenstein 1962, p. 170 n. 37; Jammer 1969, ch. 2, especially pp. 28–32; Pyle 1995, pp. 80–82.

⁶⁹Wallis 1643, p. 86 (ch. 12, §3).

⁷⁰Twisse 1631, pp. 93, 109, 111, 112, 114, 116, 117, 120, 123 (sect. 2, ch. 5). And that was just in one chapter! See also pp. 63, 67, etc.

⁷¹*Divine Dialogues*, p. 55 (dial. 1, §27); *Enchiridion metaphysicum*, vol. 1, p. 63 (ch. 8, §10, scholium).

⁷²Sherman 1641, p. 44. The Hushai reference is to 2 Samuel 17:7.

among non-Puritans, it was widely felt that we really did need to have our being *in* God in a very literal sense indeed. There were still different options available, about precisely what sense that should be: but, for his part, More's own favoured option was to place us in God *locally*.

Leaving Judaism and Christianity to one side, comparable ideas can be discerned in pagan traditions too. Thus, in a remark cited—alongside several other texts, Acts 17:28 among them—by Newton in his General Scholium, Virgil wrote: 'God pervades all lands, the ocean's plain, th'abyss of heaven.'⁷³ In the Chinese tradition, we find it argued of God that, 'if he be self-existent, he is unlimited; consequently, he is every where; he exists throughout all matter, and in every part of myself.'⁷⁴ In the *Poemander*, attributed to Hermes Trismegistus, the author argued: (i) that the entire cosmos is a moved body; (ii) that this body needs to be moved in something else, which has to be of a contrary nature, and hence (iii) has to be incorporeal. 'Place is incorporeal, then', wrote the pseudo-Hermes. But then he continued: 'but the incorporeal is either divine or else it is god. (By "divine" I mean here the unbegotten, not the begotten.)' (Admittedly, his final conclusion was that God was not to be identified with such incorporeal things after all, but was rather to be regarded as their cause).⁷⁵

In Mosheim's edition of Cudworth's *True Intellectual System of the Universe*, the former demonstrated a level of scholarly erudition equal to the latter, and he listed a number of further authors, from Theophilus of Antioch in the second century to Joseph (here wrongly called 'John') Raphson in the seventeenth: all of these, claimed Mosheim, identified space with the divine immensity, or at the very least declared God to be the 'place' of all things.⁷⁶ (In this, as it happens, such authors would be disagreeing with Cudworth himself, as we will be seeing in a moment). Admittedly, as intriguing as some of these hints are, it might be imprudent to take all of Mosheim's eighteenth-century interpretations at face value. And we should especially be on our guard against assuming that these historical figures understood the divine immensity in terms of extension as opposed to holenmerian omnipresence, or even that they had any real conception of the distinction. For instance, to bring in yet another author besides those in Mosheim's list, Nicole Oresme (c. 1320/25–1382) examined the empty incorporeal space beyond the highest heaven, and he actually went so far as to declare: 'Now this space of which we are talking is infinite and indivisible, and is the immensity of God and God Himself.'⁷⁷ But then, on the other hand, Oresme also compared this immensity to God's eternity, which, as he explained, was wholly non-successive. So likewise, when he discussed the nature of God's omnipresence in more detail, he made it very clear that God was not to be

⁷³Virgil 1915, p. 106 (bk. 4, lines 221–222); Newton 1999, pp. 941–942 note j (General Scholium).

⁷⁴As cited by Voltaire 1819, vol. 1, p. 47 ('The Chinese Catechism', dial. 2).

⁷⁵Copenhaver 1992, pp. 8–9, 11.

⁷⁶Cudworth 1845, vol. 2, pp. 541–554 n. 3, at pp. 545–546.

⁷⁷Oresme 1968, p. 177 (bk. 1, ch. 24, fol. 39b). See also p. 725 (bk. 4, ch. 11, fol. 201b).

regarded as extended, but merely as constituting space by being *wholly* present in each part of the physical world.⁷⁸ Oresme's God, unlike More's, did not possess spatial parts outside parts, even indiscernible ones, any more than he possessed temporal parts after parts.

Somewhat later (but still before More's own era), someone else who occasionally gets a mention in these contexts is Leonard Lessius (1554–1623). Otto von Guericke cited Lessius in his own discussion of the nature of space and its relation to God, and Guericke's chosen extract does indeed make Lessius's position appear to have fallen broadly in line with More's. Lessius, as quoted by Guericke, wrote: 'Imaginary Space is God Himself, who, in view of his immensity, is everywhere and necessarily is infinitely diffused'.⁷⁹ However, Raphson also quoted the same passage from Lessius, only he did so much more fully than Guericke. As the longer extract in Raphson makes very clear, Lessius's opinion was, after all, that God was 'diffused in all dimensions, not by parts but, as they say, by wholes'.⁸⁰ Lessius, like Oresme, turns out to have been just another holenmerian.

As for Guericke himself, as we observed in Chap. 4 (pp. 106–107 above), his empirical investigation of the void led him to the opinion that there was an infinite space underlying the corporeal world 'as a container of all things, infinite in extent, wherein all things exist, live and move and one which presents no variation, alteration, or change'.⁸¹ As the near quotation from Acts 17:28 in this passage would suggest, Guericke was inclined to follow Lessius in linking space with God. In response to the Cartesian suggestion that created corporeal substance might be indefinitely extended, Guericke replied that, 'it would blaspheme God to declare that something else is Infinite and Immense. For indeed, God alone admits of no boundaries to his extension.'⁸² He was confident that the corporeal world was finite, but he was nevertheless prepared to place this world in an infinite expanse of imaginary space. But then, if God alone could be immense, there was only one reasonable conclusion to draw: 'He is Space and just as He is boundless, so is Space without end, because God Himself is Imaginary Space.'⁸³

Now, although Guericke does appear to have been working independently of More, More did manage to get a slight chronological edge over him in setting out such an idea. Guericke's book appeared in 1672, a year after More's *Enchiridion metaphysicum* and four years after the *Divine Dialogues*. But, more significantly than their chronology, More also set his position out in considerably more detail

⁷⁸Oresme 1968, pp. 279, 721–723 (bk. 2, ch. 2, fol. 68a–b; bk. 4, ch. 10, fol. 200c). See Duhem 1985, pp. 263–267; Grant 1981, pp. 262, and 349, n. 123.

⁷⁹Guericke 1994, p. 94 (bk. 2, ch. 6). See also p. 101 (ch. 8). On Lessius in relation to Guericke, see Grant 1981, p. 219. Leibniz associated the two of them together, as both regarding God as the place of objects: Leibniz 1996, p. 149 (bk. 2, ch. 13, §17).

⁸⁰Raphson 1697, pp. 85–88 (ch. 6, §7).

⁸¹Guericke 1994, p. 89 (bk. 2, ch. 4).

⁸²Guericke 1994, p. 95 (bk. 2, ch. 6).

⁸³Guericke 1994, p. 94 (bk. 2, ch. 6).

than Guericke did. In particular, Guericke simply did not say enough about the nature of the divine immensity for us to be in a position to state definitively whether he believed that God was actually extended with something akin to Morean indiscernible, notional parts outside parts, or alternatively whether he believed (with Lessius or Oresme) that God generated imaginary space through the ubiquitous repetition of his entire, integral substance. In Chap. 4, we noted that Guericke—in stark contrast to the later More, and also to Raphson—strongly downplayed the *reality* of space. In the light of this, one does have to wonder just how literally he can have intended for such space to be identified with God.

All in all, although More's position might have echoed some very much older themes, the details of the theory he developed were entirely his own. What More managed to do was bring these ideas up to date, recasting them in the terms of seventeenth-century philosophy, and introducing new standards of philosophical rigour. More was no longer content simply to make vague suggestions about God's being the place of the world. He elucidated this notion in detail, describing how God could possess an infinite extension that really did involve parts outside parts, just as long as these were understood as the sort of penetrable and indiscernible notional parts that would still befit his immateriality. Even if one ends up deciding that Guericke was committed to such a theory after all, and really did go beyond the holenmerianism of his forebears, the fact remains that More got there first. Notwithstanding a few pregnant but ultimately unfulfilled speculations here and there throughout the preceding centuries, Edward Grant is quite correct in describing More's identification between three-dimensional space and the divine immensity as an 'incredibly bold and unheard-of step'.⁸⁴

Once More had set the bandwagon rolling, though, there were a number of others who were then prepared to climb aboard. On the basic conception of spiritual extension as such, More found a staunch supporter in Thomas Robinson (d. 1719). Robinson had actually studied at Christ's College in the mid-1660s, where he would in all probability have been taught by More himself. In his *Vindication of the Philosophical and Theological Exposition of the Mosaick System of the Creation* (1709), following a 'Philosophical, Mythological, Paraphrase upon the *First Chapter of Genesis*' that had much in common with More's own treatment in *Conjectura Cabbalistica* (and which referred directly to 'Dr. H.M.' at one point),⁸⁵ Robinson then proceeded to deliver an account of the natures of body and spirit. The way he opted to define their respective essences (by 'the Law of Opposites') seems to have been lifted directly out of More's own discussions of the issue, primarily from *Enchiridion metaphysicum*.⁸⁶ A spirit, for Robinson just as for More, was to be

⁸⁴Grant 1981, p. 223.

⁸⁵Robinson 1709, p. 19 (on Genesis 1:3, 'Let there be light'): 'Dr. H.M. would have Light to be the Platonic *Anima Mundi*, wherein are contained the *Seminal Principles* and *Specifick Forms* of all *Vegetables* and *Animals*; and this seems agreeable with the *Mosaick Hypothesis*.' Compare *Conjectura Cabbalistica*, p. 11 (*The Philosophick Cabbala*, ch. 1, §1).

⁸⁶Robinson 1709, p. 106, and see pp. 107–111. Compare *Enchiridion metaphysicum*, vol. 1, pp. 117–118 (ch. 28, §§2–3).

understood in terms of: '1. *Indivisibility*. 2. *Penetrability*. 3. *Self-Activity*. And 4. *Contraction and Dilation* in its own Circumscribed Vehicle.'⁸⁷ Robinson illustrated the indiscernibility of a spirit by means of a version of More's analogy with an orb of light, which one could not 'clip' into parts.⁸⁸ He rejected the 'nullibist' doctrine—adopting More's own term for it—and he equally rejected the 'chiming' maxim of a soul's being *tota in toto & tota in qualibet parte*.⁸⁹ Robinson, it should be acknowledged, did then go on to present an enumeration of the various orders of spirits that deviated from More's position in several ways.⁹⁰ But his basic conception of the nature of a spirit and, in particular, its extension, agreed in both substance and wording with More's own.

On the other hand, Robinson was largely content to limit his attention to the spatial presence of created spirits, and he did not really get into a serious examination of God's own relation to the spatial world. But another figure who did so, someone we already met briefly in the final part of Chap. 4 above (p. 123), was the German Andreas Rüdiger. Rüdiger drew directly upon More works as he developed his own similar theory of real space in his *Physica divina* of 1716. But we can now add that this was not only true of Rüdiger's theory of space as considered simply in its own nature. Rüdiger additionally followed More in deifying space, explicitly referring his reader to the discussion of the 'twenty titles' from *Enchiridion metaphysicum*, as well as giving the obligatory nods to both Acts 17:28 and 'Makom'.⁹¹ As the index reference to the relevant section of *Physica divina* succinctly puts it: 'The universal space of all creatures is God.'⁹²

Likewise, and as we also noted in Chap. 4 (p.123), Jonathan Edwards began his juvenile essay of the early 1720s, 'Of Being', by arguing for a space that was necessary, eternal, infinite, omnipresent and incorporeal, and whose non-existence was inconceivable. But Edwards did not merely agree with More's views on space as such. He was also prepared to follow the argument all the way to the destination to

⁸⁷Robinson 1709, p. 107.

⁸⁸Robinson 1709, pp. 108–110, and see pp. 111, 113. Compare *The Immortality of the Soul*, pp. 15–16 (bk. 1, ch. 5, §§2–3). The printed text actually features the words 'undiscernable' (p. 107) and 'indiscernable' (p. 108), but these duly corrected to 'undiscernible' and 'indiscernible' in a pasted-in errata slip at p. 118.

⁸⁹Robinson 1709, pp. 109–110. Compare *A Collection of Several Philosophical Writings*, The Preface General, p. xiii (§12), etc.

⁹⁰Robinson 1709, pp. 111–113. Robinson proposed 'Mineral Spirits', which were supposed to take responsibility for the growth and cohesion of minerals and stones, a task that More either sought to explain mechanically, or else handed over to the universal Spirit of Nature. He proposed distinct seminal forms in plants, which More did countenance initially, but from which he began to distance himself after developing that theory of a universal Spirit of Nature (see Chap. 9 below). He suggested a substantive difference between human souls and angels, not merely in the vehicles they animated (which was as far as More would go), but also in the latter's possession of 'intelligence' in contrast to the former's possession of mere 'rationality'. And he identified the Soul of the Universe not with a Morean Spirit of Nature but with the Triune God himself.

⁹¹Rüdiger 1716, p. 347 (bk. 1, ch. 8, sect. 4, §19).

⁹²Rüdiger 1716, unpaginated alphabetical index, under 'Spatium'.

which it seemed inexorably to be leading. ‘But I had as good speak plain’, he wrote: ‘I have already said as much as that space is God.’⁹³ Edwards felt that he had already insinuated this conclusion implicitly, by ascribing incommunicable attributes to space. Perhaps incorporeality was not incommunicable, but necessity, eternity, infinity and omnipresence certainly did seem to be. Saying that space possessed such attributes was therefore tantamount to saying that it was divine.

Back in Cambridge, in his *De spatio reali* of 1697, Joseph Raphson was even more explicit in arguing for the divinity of space on the basis of its possession of incommunicable attributes. We noted in Chap. 4 (p. 123–124) that Raphson’s conception of space was heavily indebted to More. Lifting the latter’s demonstration, of a space distinct from body, directly out of *Enchiridion metaphysicum*, Raphson was explicit in declaring—even in the very title of *De spatio reali*—that this space was something *real* in its own right. In the following chapter of his treatise, Raphson then proceeded to demonstrate its nature in more detail. Space, he argued, was (i) absolutely indivisible, (ii) absolutely immobile, (iii) actually infinite, (iv) pure act, and (v) all-containing and all-penetrating. Pausing briefly at this point for a scholium, he made the predictable allusions to both Acts 17:28 and ‘Makom’, before carrying on: (vi) incorporeal, (vii) immutable, (viii) one in itself, (ix) eternal, (x) incomprehensible, (xi) most perfect in its kind, and (xii) such that extended things can neither be nor be conceived without it. On the basis of these considerations, Raphson then proceeded to draw the only possible conclusion: (xiii) ‘Space is an attribute (viz. immensity) of the first cause.’⁹⁴

Finally, another figure who does also seem to have drawn something directly out of More (albeit without actually naming him) was George Cheyne (1671 or 1672–1743). The first part of Cheyne’s *Philosophical Principles of Religion* discussed the wise contrivance of the universe, and the limits of mechanical explanations, in a manner strongly reminiscent of More, albeit drawing primarily on Newton’s works rather than More’s own. The second part then discussed the nature of body and spirit in what would appear to be a synthesis of both Morean and Newtonian ideas. Just like the later More, Cheyne insisted that extension should apply equally to both body and spirit. Also like More (and Robinson), Cheyne endeavoured to define body and spirit by the law of opposites. A body, for Cheyne, was an extended, impenetrable, passive, divisible and unintelligent substance, from which the definition of spirit should naturally follow: ‘A Spirit is an extended, penetrable, active, indivisible, intelligent Substance. *Body* and *Spirit* are in ev’ry other Quality opposite, except in *Extension*; therefore as the foregoing *Definition* of *Body* sums up its sensible and most constant Qualities, so to assign the *Definition* of *Spirit*, there was nothing to be done, but to joyn the opposite Qualities of *Body* to that of *Extension* or extended Substance.’⁹⁵ It is worth noting that More resisted such an inclusion of ‘intelligent’

⁹³Edwards 1980, p. 203 (‘Of Being’). See Reid 2003b, on how Edwards’s views would develop subsequently.

⁹⁴Raphson 1697, pp. 74–80 (ch. 5). For discussion, see Koyré 1957, ch. 8; together with Copenhaver 1980, pp. 529–540; Grant 1981, pp. 230–234.

⁹⁵Cheyne 1725, Part II (paginated separately from the first part), p. 4. See also op. cit., pp. 117–119.

in the definition of spirit, believing that purely vegetative principles deserved to be included in that category just as much as minds did. But, aside from that difference, Cheyne's approach to the definitions of the two kinds of substance was abundantly Morean. And then, as for the crucial question of the extension of God in particular, Cheyne was happy not only to admit such an extension but also to link it directly with space itself. It is clearly from Newton that Cheyne borrowed the characterisation of space as the 'divine sensorium'.⁹⁶ But other ideas, although they could also have been inspired by Newton, do seem considerably more Morean in their mode of expression. Thus, for instance, More's description of space as 'an obscure and diluted image of the real divine presence, and the natural vision of it' finds some echo in Cheyne's claim that '*universal Space* is the natural Image of the *divine Infinitude*'.⁹⁷ (I would also here just mention another parallel between Cheyne's conception of spirit and that which More set out in *some* of his works. In an echo of some of More's remarks in the *Philosophicall Poems*, Cheyne denied that there was a sharp distinction between body and spirit, claiming instead that body should be understood as 'an infinitely condensed or incrassated *spiritual* Substance'.⁹⁸ But a proper discussion of this particular theory, as it was handled by More, must be postponed until the next chapter below).

Still, just as one might expect, there was opposition too. One especially noteworthy critic of More's position, given his closeness to More, was his fellow Cambridge Platonist and Master of Christ's College, Ralph Cudworth (1617–1688). Now, Cudworth's position was somewhat nuanced, and at times he comes across as if he was agreeing with his colleague. In discussing the space of Gassendi, for instance, Cudworth made somewhat the same point that Guericke had made: 'because there can be nothing infinite, but only the Deity,... it is the infinite extension of an incorporeal Deity; just as some learned Theists and Incorporealists have asserted'.⁹⁹ The reference to some learned theists and incorporealists was almost certainly intended specifically as a reference to More. For Cudworth was grateful for More's work, because it helped him to counter those atheists who believed that nothing unextended—and, by implication, nothing incorporeal—could exist at all. If they were wrong, and a theory of an unextended God could be satisfactorily defended after all, then there would be no problem. But what More had shown was that, even if they turned out to be right, there would *still* be no problem. The principle that nothing unextended could exist would not entail their conclusion that there was no God, for an attribution to God of the kind of immaterial extension that More had described would turn out not to be sufficient to render him corporeal after all

⁹⁶Cheyne 1725, Part II, pp. 53–54.

⁹⁷*Enchiridion metaphysicum*, vol. 1, p. 68 (ch. 8, §13, scholium); Cheyne 1725, Part II, p. 53.

⁹⁸Cheyne 1725, Part II, p. 119. See Cheyne's elucidation of this notion at pp. 119–23.

⁹⁹Cudworth 1743, p. 770/Cudworth 1845, vol. 3, p. 232. Gassendi himself did not deify his space, and was careful to defend himself, in a variety of ways, from the anticipated charge of heterodoxy in postulating something uncreated yet independent of God: see Gassendi 1972, pp. 389–390 (*Syntagma*, pt. 2, sect. 1, bk. 2, ch. 1).

(and thereby to make him unworthy of the title ‘God’). That conclusion could still be avoided, just as long as it could be established, in Cudworth’s own words, ‘that there is another incorporeal extension, which is both penetrable, and also indiscernible, so that no one part thereof can possibly be separated from another, or the whole; and that to such an incorporeal extension as this belongeth life, cogitation, and understanding, the Deity having such an infinite extension, but all created spirits a finite and limited one, which also is in them supposed to be contractible and dilatable.’¹⁰⁰

However, although Cudworth was very far from condemning More’s opinion, he was also very far from endorsing it. We must be clear on what Cudworth was actually saying in this response to Gassendi. What he believed was that Gassendi’s space *would* turn out to be divine, *if* such a space existed. But he did not believe that any such space did exist. Consequently, he was in no way committed to any divine extension either. His own conception of God’s immensity was a more traditional, holenmerian one. Despite firmly agreeing with More on a great many issues (the pre-existence of the soul, the aerial and aethereal vehicles of spirits, the activity of a universal, created, plastic principle in natural physical phenomena, etc.), Cudworth could never quite bring himself to accept More’s theory of spiritual extension. Instead, he preferred to side with the ancients:

By this time we have made it unquestionably evident, that this opinion of incorporeal substance being unextended, indistant, and devoid of magnitude, is no novel or recent thing, nor first started in the scholastick age; but that it was the general persuasion of the most ancient and learned asserters of incorporeal substance, especially that the Deity was not part of it here, and part of it there, nor the substance thereof mensurable by yards and poles, as if there were so much of it contained in one room, and so much and no more in another, according to their several dimensions; but that the whole undivided Deity was at once in every part of the world, and consequently no where locally after the manner of bodies.¹⁰¹

In the ensuing discussion, Cudworth carefully endeavoured to answer each of More’s specific objections against holenmerianism. He did not mention More by name—perhaps because he simply did not wish to offend his friend by criticising him in public—but there can be little doubt where Cudworth’s discussion was originating from. Cudworth rejected in turn: (i) the objection that this theory served to render God’s amplitude no greater than a single point¹⁰²; (ii) the notion that magnitude or extension was the essence of being as such; (iii) the suggestion that the presence of the whole of God in one point ought to mean that there was none of him left to be present in another; and (iv) the claim that holenmerian omnipresence should

¹⁰⁰Cudworth 1743, p. 833/Cudworth 1845, vol. 3, p. 398.

¹⁰¹Cudworth 1743, pp. 776–777/Cudworth 1845, vol. 3, p. 248.

¹⁰²It was, incidentally, at this point that Cudworth presented a now-familiar image: ‘... so that thousands of these incorporeal substances, or spirits, might dance together at once upon a needle’s point’ (Cudworth 1743, p. 777/Cudworth 1845, vol. 3, p. 249). But then, More himself had used the same image just three years earlier (if we go by the 1671 imprimatur of Cudworth’s book, that is, rather than its official 1678 publication date): ‘Is it not infinitely incredible, *Philotheus*, if not impossible, that some thousands of Spirits may dance or march on a Needle’s point at once?’ (*Divine Dialogues*, p. 46 (dial. 1, §22)).

render him divisible into several wholes.¹⁰³ These four arguments were lifted directly out of More's *A Collection of Several Philosophical Writings, Divine Dialogues* and (especially) *Enchiridion metaphysicum*, and Cudworth's discussion is probably the fullest contemporary commentary we have from anyone on More's work in this area. (Although, admittedly, his refutation of More's arguments consists primarily in quotations drawn from Plotinus and other ancient philosophers, rather than in rigorous counter-arguments of his own).

Cudworth's daughter, Damaris Masham (1658–1708), would later recall: 'I remember my father as well as other assertors of unextended substance to have said: That it is an imposition of imagination upon their reason in those who cannot be convinced of the reality of substances unextended.'¹⁰⁴ As it happens, Masham herself did not share this opinion. For her part, she believed not only that things that were nowhere could not be allowed any existence at all, but also that locality entailed extension: 'extension is to me, inseparable from the notion of all substance.'¹⁰⁵ So Masham (conceivably with some influence from Locke) was actually siding with More against her own father. But Cudworth's own position was pretty unequivocal. Here and there in the secondary literature, one does occasionally encounter moments of carelessness such as this one: 'More always maintained, in absolute opposition to the whole basis of Cartesian philosophy, that both corporeal and spiritual substances are extended, a position shared by More's colleague Ralph Cudworth, and central to the whole Cambridge platonist tradition.'¹⁰⁶ But this is not only entirely false in the case of Cudworth, but false of the Cambridge Platonists at large too. John Smith (1618–1652), to name but one, seems not only to have rejected divine extension (albeit before More's own mature theory was properly developed), but actually to have inclined towards a position of outright nullibism. Smith agreed with some of the Cartesians in equating God's omnipresence with his omnipotent capacity to act anywhere, ostensibly without any requirement that he himself should be there substantially in order thus to act. Having just set out an emphatically non-successive conception of eternity, Smith wrote: 'Now thus as we conceive of God's *Eternity*, we may in a correspondent manner apprehend his *Omnipresence*; not so much by an infinite Expanse or Extension of Essence, as by an unlimited Power.'¹⁰⁷

Among other opponents to More-style theories of divine extension, one might mention John Toland (1670–1722), Isaac Watts (1674–1748) and George Berkeley (1685–1753)—although, as a matter of fact, all three of these would cite Raphson's treatment of the issue more than More's own. In 1704, Toland proposed a real identity between space and matter, and he chided those who had mistaken a mere abstraction—namely, absolute space, independent of body—for a real being. It was this mistake that Toland identified as the basis for Raphson's erroneous move to

¹⁰³Cudworth 1743, pp. 777–783/Cudworth 1845, vol. 3, pp. 248–259.

¹⁰⁴Masham in Atherton 1994, p. 84 (Masham to Leibniz, 3 June 1704).

¹⁰⁵Masham in Atherton 1994, p. 86 (Masham to Leibniz, 8 August 1704). See also pp. 83–84, 87.

¹⁰⁶Rogers 1985, p. 292.

¹⁰⁷Smith 1660, p. 132 ('Of the Existence and Nature of God', ch. 2, §5).

treat space as divine. (Although Toland might not have mentioned More by name, he did note that Raphson was ‘neither the first Broacher of this Conceit, nor the only Maintainer of it now’).¹⁰⁸ In 1733, Watts considered the theory that space might be identified with God, or at least with one of his attributes, but he too rejected any such notion. Among other supposed absurdities, Watts simply could not accept that a being could be extended without having really distinct and separable parts. Consequently, he was not prepared to spatialise God. On the other hand, he did acknowledge that this conclusion would naturally follow from the premise that space was substantial. Consequently, he preferred to treat space itself as an ‘empty nothing’.¹⁰⁹

As for Berkeley, he was certainly familiar with More’s own contribution in this area, referring at one point in his early notebooks (c. 1707–1708) to how both More and Raphson (and also Locke) seemed to make God extended.¹¹⁰ Berkeley did not like this position, and he endeavoured to refute it by thoroughly overturning the sort of philosophical perspective that had made the notion of an independent space seem tenable in the first place. Like both Watts and Cudworth, he too acknowledged that, just as soon as one admitted such a space at all, one would automatically be reduced to ‘thinking either that real space is God, or else that there is something beside God which is eternal, uncreated, infinite, indivisible, immutable. Both which’, he added, ‘may justly be thought pernicious and absurd notions.’¹¹¹ Better, in Berkeley’s opinion, not to countenance any such thing at all, lest the force of the argument from incommunicable attributes should draw one into so intolerable a position. (On the other hand, as he later observed, since these supposedly incommunicable divine attributes—‘impassive, increated, indivisible, etc.’—seemed to have a negative character, one might as well infer on their basis that space was nothing as that it was God).¹¹²

But then, and again as noted in Chap. 4, there were other figures, even more than either More or Raphson, who cast long shadows over eighteenth-century debates in this area: namely, Isaac Newton and his champion, Samuel Clarke, together with John Locke. In Locke’s case, as might be expected in the light of his more general reticence about venturing any further into metaphysical territory than his epistemology would officially allow, we do not find any particular commitment, one way or the other, on the question of divine extension. Locke also did not actually mention More specifically, and most of the opinions that they did share were common currency at the time: but still, up to a point, his position did at least agree with More’s.

¹⁰⁸Toland 1704, pp. 212–221 (letter 5, §§24–26), here at p. 219 (§26). See also Copenhaver 1980, pp. 546–547.

¹⁰⁹Watts 1742, pp. 8–23, 169–170 (essay 1, §§4–6; essay 6, §5).

¹¹⁰Berkeley 1945–1957, vol. 1, p. 37 (*Philosophical Commentaries*, §298).

¹¹¹Berkeley 1948–1957, vol. 2, p. 94 (*Principles of Human Knowledge*, §117).

¹¹²Berkeley 1948–1957, vol. 2, p. 292 (Berkeley to Johnson, 24 March 1730, §2). For a couple more references to Raphson in particular, see op. cit., vol. 1, p. 99 (*Philosophical Commentaries*, §827); and vol. 4, pp. 237–238 (‘Of Infinities’).

Leaving aside the speculations of the 1670s notebooks that we already looked at (pp. 136–139 above), Locke's settled opinion was that there did at least need to be such a thing as pure space, distinct from the bodies that inhered in it. He also agreed with More (but also with many others by this time) that this space was characterised by penetrability and indivisibility, in contrast to bodies, which were solid and divisible. Although Locke did not use the distinctively Morean term, 'indiscernible', his position regarding the parts of space was really just the same as More's. These parts, for Locke, were epistemological artefacts, arising out of the partial consideration of the indivisible whole—what More would call merely 'notional parts'—and they could not possibly be parted from one another without a contradiction:

'Tis true, a Man may consider so much of such a *Space*, as is answerable or commensurate to a Foot, without considering the rest; which is indeed a partial Consideration, but not so much as mental Separation or Division; since a Man can no more mentally divide, without considering two Superficies, separate one from the other, than he can actually divide, without making two Superficies disjoin'd one from the other: But a partial consideration is not separating. A Man may consider Light in the Sun, without its Heat; or Mobility in Body without its Extension, without thinking of their separation. One is a partial Consideration, terminating in one alone; and the other is a Consideration of both, as existing separately.¹¹³

In addition, Locke sided with More (but with most others too) in rejecting nullibism, declaring quite straightforwardly that 'Spirits, as well as Bodies, cannot operate, but where they are'.¹¹⁴

One detail on which Locke did differ from More was the issue of whether created spirits could penetrate one another. More felt that they could (except in cases of hylopathic saturation). Locke, by contrast, distinguished between three sorts of substances—God, 'finite intelligences', bodies—in the course of his discussion of identity and diversity, and he maintained that 'though these three sorts of Substances, as we term them, do not exclude one another out of the same place; yet we cannot conceive but that they must necessarily each of them exclude any of the same kind out of the same place: Or else the Notions and Names of Identity and Diversity would be in vain, and there could be no such distinction of Substances, or any thing else from another.'¹¹⁵ Locke felt that the identity over time of a finite spirit (as opposed to a 'person') was to be defined in much the same way as that of a body, in terms of the continuity of its spatio-temporal location, from the determinate time and place of its commencement onwards: but such a definition would be untenable if two such spirits were going to be allowed to coincide. But, that point aside, Locke's position thus far did fall near enough in line with More's own.

Moreover, Locke also seems to have been quite confident that God himself needed to be substantially omnipresent: he does seem to have intended that remark, about how spirits could not operate except where they were, to encompass God in its scope as well as finite spirits. To quote just one indication of this,

¹¹³Locke 1975, pp. 172–173, (bk. 2, ch. 13, §13). Cf. Locke 1936, pp. 78–79 (20 June 1676)

¹¹⁴Locke 1975, p. 306 (bk. 2, ch. 23, §19).

¹¹⁵Locke 1975, p. 329 (bk. 2, ch. 27, §2).

Locke would, for instance, allude to ‘the boundless invariable Oceans of Duration and Expansion; which comprehend in them all finite Beings, and in their full Extent, belong only to the Deity’.¹¹⁶ However, where Locke stopped short was in spelling out the precise nature of the divine presence in detail. Even if nullibism was ruled out, was God supposed to be omnipresent in the holenmerian manner, or was he actually supposed to share the same kinds of indiscernible parts outside parts that characterised space itself? Indeed, was this space supposed to be anything distinct from him at all? There is at best some vague, circumstantial evidence that Locke might have inclined to the Morean position: but, officially, he remained silent on the issue.

When we turn to Newton, however, we do find him slightly more forthcoming than his friend was. Newton equally rejected nullibism, arguing of God as follows.¹¹⁷ ‘He is omnipresent not *virtually* only, but also *substantially*; for virtue [i.e. power] cannot subsist without substance. In him all things are contained and move.’¹¹⁸ Likewise, Clarke would also insist that ‘God, being omnipresent, is really present to every thing, essentially and substantially. His presence manifests itself indeed by its operation, but it could not operate if it was not there.’¹¹⁹ Both Newton and Clarke insisted that anything that existed at all would need to be spatially present in a manner appropriate to its kind.¹²⁰ But, of course, a denial of nullibism still fell short of a theory of spiritual extension, and the associated theory of the divinity of space itself, because it remained entirely compatible with the alternative, holenmerian account of spiritual presence. Again, just as nullibism remained as rare in the decades following More as it had ever been before, holenmerianism remained pretty much as common as *it* had ever been. And this does indeed seem to have been the position that Newton was inclined to adopt.

¹¹⁶Locke 1975, p. 200 (bk. 2, ch. 15, §8). See also pp. 179 (bk. 2, ch. 13, §26), 197 (bk. 2, ch. 15, §§2–3).

¹¹⁷Newton also rejected nullibism in the case of a created spirit: see Newton 2004, p. 31/Newton 1962, p. 143 (*De gravitatione*).

¹¹⁸Newton 2004, p. 91/Newton 1999, p. 941 (General Scholium), but here reverting to the 1729 translation by Andrew Motte. On this particular occasion, the latter is not only truer to Newton’s Latin but also (apart from the archaic use of ‘virtue’) actually still remains clearer than the Cohen and Whitman translation that Janiak is presenting in that 2004 collection. Note that it was here that Newton inserted the footnote wherein he cited Acts 17:28 alongside several other similar classical texts. Janiak’s edition unfortunately omits this footnote. More worryingly—and, one can only presume, by accident—it also omits the next sentence, which is crucial to the interpretation of the continuation of this one. What Newton wrote here was: ‘In him all things are contained and move, but he does not act on them nor they on him. God experiences nothing from the motions of bodies; the bodies feel no resistance from God’s omnipresence.’ The point is that the mere fact of God’s omnipresence has no effect on bodies, not that God does not act on bodies at all: he can and he does, but it requires a positive act of will on his part.

¹¹⁹Clarke and Leibniz 1956, pp. 33–34 (Clarke’s third reply, §12).

¹²⁰Newton 2004, p. 25/Newton 1962, p. 136 (*De gravitatione*); Newton in McGuire 1978b, pp. 117; Clarke 1998, pp. 103, 106, 114 (Clarke’s answers to the second, third and sixth letters from Butler and another gentleman).

Now, Edward Grant rejects a holenmerian reading of Newton. ‘Any attempt to foist this interpretation on Newton must be rejected. Nowhere, to my knowledge, did he mention or suggest such a mechanism for God’s omnipresence.’¹²¹ J.E. McGuire, however, has more sympathy for such a reading.¹²² And, for my own part, I stand wholeheartedly behind a holenmerian interpretation of Newton. Indeed, it is hard to see how Newton could have made his commitment to the ‘whole in each part’ doctrine much clearer than he (eventually) did.

To begin with *De gravitatione*, having stated that nothing ‘exists or can exist which is not related to space in some way’, and that ‘God is everywhere’, Newton then proceeded to explain:

Moreover, lest anyone should for this reason imagine God to be like a body, extended and made of divisible parts, it should be known that spaces themselves are not actually divisible, and furthermore, that any being has a manner proper to itself of being present in spaces. For thus the relation of duration to space is very different from that of body to space. For we do not ascribe various durations to the different parts of space, but say that all endure simultaneously. The moment of duration is the same at Rome and at London, on the earth and on the stars, and throughout all the heavens. And just as we understand any moment of duration to be diffused throughout all spaces, according to its kind, without any concept of its parts, so it is no more contradictory that mind also, according to its kind, can be diffused through space without any concept of its parts.¹²³

It must be acknowledged that Newton’s first reaction against the charge that he was corporealising God was to point out that space itself was indivisibly extended, so that it might be applicable to an incorporeal God after all. But, instead of lingering on that point, he then proceeded to develop the alternative position, by hinting (at least) that the whole of the simple divine substance might be simultaneously present in each and every place, in a manner analogous to the way in which a moment of time was thus multiply present—the same analogy that Plato had used in *Parmenides*, to illustrate and to defend the suggestion that a Form could be wholly present in several objects at once.

In the 1713 General Scholium, Newton offered the same analogy, writing that God ‘endures always and is present everywhere.... Since each and every particle of space is *always*, and each and every indivisible moment of duration is *everywhere*, certainly the maker and lord of all things will not be *never* or *nowhere*.¹²⁴ This passage again hints at a holenmerian view of God’s presence, through the analogy with the presence of a moment of time: but neither of these passages, it is true, goes quite as far as expressing a firm commitment to such a position. The latter passage especially was designed more just to affirm the omnipresence of God (and also his eternity) than to elucidate the precise nature of that omnipresence (and eternity).

¹²¹Grant 1981, p. 253.

¹²²See McGuire 1978a, pp. 506–507. Grant replies in Grant 1981, p. 416 n. 420. See also McGuire and Tamny’s commentary in Newton 1983, pp. 123–125.

¹²³Newton 2004, pp. 25–26/Newton 1962, pp. 136–137 (*De gravitatione*).

¹²⁴Newton 2004, p. 91, Newton 1999, p. 941 (General Scholium).

But then Newton expanded this section of the General Scholium for the 1726 edition; and now, straight after this passage, he stated explicitly that:

Every sentient soul, at different times and in different organs of senses and motions, is the same indivisible person. There are parts that are successive in duration and coexistent in space, but neither of these exist in the person of man or in his thinking principle, and much less in the thinking substance of God. Every man, insofar as he is a thing that has senses, is one and the same man throughout his lifetime in each and every organ of his senses. God is one and the same God always and everywhere.¹²⁵

Immediately after this interpolation, the passage carried on with Newton's rejection of nullibism, as quoted above; and it is hard to read the interpolated passage as presenting anything other than a statement of holenmerianism. The human soul and—all the more surely—God were not part here and part there. Instead, one and the same spiritual being would be present in different places at once.

As for Clarke, Ezio Vailati has come to the conclusion that he was not a holenmerian.¹²⁶ Vailati observes that Grant rejects a holenmerian reading of Newton, while McGuire has more sympathy for such a reading. Vailati opts to side with Grant's interpretation of Newton and, rightly recognising that Clarke generally tended to follow Newton's lead on matters like these, he reapplies it to Clarke. He does however concede that 'Clarke's views on divine omnipresence are notoriously difficult to make out, and any attempt to arrive at a crisp formulation of his position is likely to be frustrated by Clarke's own remark that we do not really understand how God is omnipresent.'¹²⁷ There is much truth in that. But, for my part, feeling that Newton should in fact be read as a holenmerian, I also adopt the same attitude to Clarke. Vailati argues that Clarke 'did not address More's critique of holenmerism, as one would expect him to do had he adopted it'.¹²⁸ It is quite correct that neither Clarke nor, for that matter, Newton addressed More's critique of holenmerianism (as, for instance, Cudworth *did* do). But must this mean that they concurred with his rejection thereof? Not at all. It could just mean that they were not familiar with his anti-holenmerian arguments. Clarke's writings do not demonstrate extensive first-hand familiarity with More's at all, and Newton seems to have known More's philosophy chiefly through his earlier works. In his *Philosophicall Poems*, More himself had clearly expressed a holenmerian standpoint. Even in the first edition of *The Immortality of the Soul*, although More did reject holenmerianism, he did not particularly emphasise this rejection; and, more to the point, he did not actually *argue* against holenmerianism. He did not get going with his actual critique until *A Collection of Several Philosophical Writings*, the *Divine Dialogues*, and *Enchiridion metaphysicum*. These works were absent from Newton's library, and,

¹²⁵ *Ibid.*

¹²⁶ Vailati 1997, pp. 21–22. And see, more generally, pp. 17–37, on Clarke's views on the relation of space and time to God. For his views on the spatiality of created spirits, see pp. 54–62, 66–68; and Vailati 1993.

¹²⁷ Vailati 1993, p. 396 n. 20. The reference is to Clarke 1998, p. 35 (*Demonstration*, §6).

¹²⁸ Vailati 1993, p. 390.

although he could nevertheless have perused them, there is no solid proof that either he or Clarke ever actually did so.

And there is a particularly noteworthy passage (which Vailati himself does observe) to be found in a 1713 letter from Clarke to an anonymous correspondent: 'As to spirituality, the individual consciousness of the one immense Being is as truly one as the present moment of time is individually one in all places at once. And the one can no more properly be said to be an ell or a mile of consciousness, which is the sum of your objection, than the other can be said to be an ell or a mile of time. This suggestion seems to deserve particular consideration.'¹²⁹ In the very same year when Newton published his General Scholium, associating God's omnipresence with the way in which a moment of time was everywhere, Clarke was here drawing just the same comparison. But a moment (or interval) of time is not partly in one place and partly in another. One and the same indivisible moment occurs in its entirety in all places at once. It seems most plausible that Clarke, as well as Newton, believed that much the same thing should be said of God too.

Now, given that God was thus immediately present to all created things, he was thereby in a position to know and to comprehend them. This was the basis for Newton's famous claim that space was, as it were, the divine sensorium. The analogy was with the common sensorium of an animal, i.e. the physical organ that would contain corporeal images of external things, and thereby enable the mind seated therein to take notice of them.¹³⁰ Since a finite mind was only present in a narrowly circumscribed region, it could not apprehend more distant things directly. Bodies could not affect the mind epistemologically from a distance, any more than the mind could act on those bodies physically without being substantially present to them: hence the mind's need for representative images. But, because God was everywhere, he could know all things directly in themselves, without any need for the mediation of images: 'And these things being rightly dispatched, does it not appear from phenomena that there is a being incorporeal, living, intelligent, omnipresent, who in infinite space, as it were in his sensory, sees the things themselves intimately, and thoroughly perceives them, and comprehends them wholly by their immediate presence to himself.'¹³¹

Newtonian space, then, clearly had *some* connection with God. However, although Newton believed that space was eternal and even uncreated, and that God was omnipresent throughout it, a straightforward identification between them was unavailable

¹²⁹Clarke 1998, p. 116 ('An Answer to a Sixth Letter'). See Vailati 1993, pp. 397–398.

¹³⁰Descartes famously identified the sensorium of a human being as the pineal gland. More considered but rejected that theory, favouring instead the animal spirits in the fourth ventricle of the brain. See *The Immortality of the Soul*, pp. 75–112 (bk. 2, chs. 4–11). And Newton himself drew on this discussion of More's, in his own early *Questiones*: Newton 1983, pp. 382–385.

¹³¹Newton 2004, p. 130/Newton 1931, p. 370 (*Opticks*, query 28). See also Newton 2004, pp. 138–139/Newton 1931, p. 403 (query 31); and also Newton in McGuire 1978b, p. 123. That last passage does not actually include the word 'sensorium': but the basic idea (in paragraph 7) is clearly the same as in these queries. As is well known, Newton's claim was discussed ad nauseam in the Leibniz-Clarke correspondence: see Vailati 1997, pp. 42–52; and Koyré and Cohen 1961.

to him. Newtonian absolute space certainly did possess parts outside parts, albeit indiscernible, notional ones. Therefore, if God's omnipresence was being understood along holenmerian lines, such that he would not even possess parts of that more limited kind, let alone discernible ones, then space could not simply *be* God. And Newton was largely unmoved by the argument from incommunicable attributes. In *De gravitatione*, after chiding Descartes for his 'infinite'/'indefinite' distinction, he wrote: 'But I see what Descartes feared, namely that if he should consider space infinite, it would perhaps become God because of the perfection of infinity. But by no means, for infinity is not perfection except when it is attributed to perfect things.'¹³² And again, in the essay 'On Place, Time, and God', he explained: 'By reason of its eternity and infinity space will neither be God nor wise nor powerful nor alive, but will merely be increased in duration and magnitude; whereas God by reason of the eternity and infinity of his space (that is, by reason of his eternal omnipresence) will be rendered the most perfect being.'¹³³

But then, let us not forget that More himself, at least in his more cautious moods, would also draw back from saying simply that space *was* God, to characterising it instead as a mere manifestation of his amplitude. Likewise, Raphson did not say that space was God, but rather that it was a particular attribute (*viz.* immensity) of his. And Newton was much more comfortable with more modest claims of this sort. In the General Scholium, he rejected the direct identification between space and God on the grounds that the latter 'is not eternity and infinity, but eternal and infinite; he is not duration and space, but he endures and is present. He endures always and is present everywhere, and by existing always and everywhere he constitutes duration and space.'¹³⁴ But the most natural way to read this would surely be to surmise that, even if God *is* not eternity and infinity, he nevertheless *possesses* eternity and infinity as attributes; and, moreover, that these are to be identified with duration and space. In *De gravitatione*, Newton explained that, since everything that exists at all has to be related to space in a manner appropriate to its nature, space itself will need to exist necessarily. 'And hence it follows that space is an emanative effect of the first existing being, for if any being whatsoever is posited, space is posited.'¹³⁵ Now, that phrase, 'emanative effect' was one that More himself had used in *The Immortality of the Soul*, identifying this as something that was 'coexistent with the very Substance of that which is said to be the Cause thereof', and explaining: 'By an *Emanative Cause* is understood such a Cause as meerly by Being, no other activity or causality interposed, produces an Effect.'¹³⁶ This does indeed seem to have been Newton's opinion of the relation of space to God. It was not something that God created freely by a positive act of will, but rather arose as an immediate and necessary consequence of his own essence and existence.

¹³²Newton 2004, p. 25/Newton 1962, pp. 135–136 (*De gravitatione*).

¹³³Newton in McGuire 1978b, p. 119; see also p. 121.

¹³⁴Newton 2004, p. 91/Newton 1999, p. 941 (General Scholium).

¹³⁵Newton 2004, p. 25/Newton 1962, p. 136 (*De gravitatione*).

¹³⁶*The Immortality of the Soul*, p. 18 (bk. 1, ch. 6, §2).

As for Clarke, he glossed this view as follows: ‘Space is not a being, an eternal and infinite being, but a property, or a *consequence of the existence* of a being infinite and eternal. Infinite space, is immensity: but immensity is not God: and therefore infinite space, is not God.’¹³⁷ Emphasis added: for in several other places, Clarke again suggests that it is God’s *existence* that ‘makes’ or ‘causes’ space and time.¹³⁸ And Newton himself seems to have been happy to adopt Clarke’s expression here (or maybe it was Clarke who had been adopting Newton’s expression all along). There exist manuscript drafts in Newton’s hand of a passage inserted into Des Maiseaux’s 1720 edition of the Leibniz-Clarke correspondence, where Newton himself wrote that space and time were ‘consequences of the existence of a substance which is really necessarily & substantially Omnipresent & Eternal’.¹³⁹ So what are we to make of all this? How did Newton and Clarke actually understand this notion of space as a necessary ‘consequence of the existence’ of God?

To derive the existence of space as such, from that of an omnipresent God, should be perfectly straightforward. In order for him to be omnipresent, there must be something for him to be omnipresent throughout. The positing of any spatial being at all must carry with it the positing of a space that such a being can occupy; and, if the first existing being should in fact turn out to possess an *infinite* presence, then this space must itself be infinite. And then, if God’s own substance already involves parts outside parts of its own (albeit indiscernible ones), then space can automatically inherit these, and they can serve as the various regions of space in which things will find their places. So it seems that *More* should not have any difficulty over this. However, if it is allowed that Newton and Clarke—in contrast to *More*—were indeed embracing a holenmerian position, then perhaps they might have had trouble over the last of these moves; i.e. not so much over establishing the existence of space as such, but over allowing a multiplicity of different parts to be conceived within it. After all, a holenmerian does not believe that God’s omnipresence involves any such multiplicity of parts at all, not even indiscernible parts. So, even if the mere existence of space might be a consequence of the existence of an omnipresent God, where is the *structure* of Newtonian space supposed to be coming from?

The parts of space might only be rationally distinct partial considerations of the indiscernible whole: but, even so, *that* much does at least need to get established, if space is going to do the job that Newton was demanding of it, of providing a multiplicity of different places for creatures to occupy. Moreover, this distinction

¹³⁷Clarke and Leibniz 1956, p. 31 (Clarke’s third reply, §3). Punctuation notwithstanding, it seems—on the basis of similar remarks cited in the next note below—that the term ‘property’ was here being attached not simply to a being infinite and eternal, but, together with the term ‘consequence’, specifically to *the existence of such a being*.

¹³⁸ For these and similar expressions, among still other passages that could be mentioned, see Clarke 1998, pp. 103, 105, 108, 115 (Clarke’s answers to the second, third, fourth and sixth letters from Butler and another gentleman); Clarke and Leibniz 1956, pp. 47, 104, 121 (Clarke’s fourth reply, §10; fifth reply, on §45, and footnote).

¹³⁹Koyré and Cohen 1962, p. 97; also pp. 96, 101, 102. And compare Clarke and Leibniz 1956, pp. xxviii–xxix.

of reason would need to be a distinction of the *reasoned* reason, rather than just being an arbitrary fiction of the mind, for the latter certainly would not give space the kind of absoluteness that Newtonian dynamics demanded of it. To recall (from p. 150 above), a distinction of the reasoned reason (*distinctio rationis ratiocinatae*) was one that would have *some* kind of foundation in reality, but a foundation that would nevertheless fall short of a real distinction in the thing itself. Now, some diversity in the way that space was related to *other* things would do the job (just as God's mercy and his justice were thought to be diversified only in relation to their recipients). But what diversity of relations could be found, to ground this rational distinction of parts in space?

As already noted, their relations to God would not help a holenmerian, given that, on the holenmerian view, each part was supposed to bear exactly the same relation—of co-presence—to exactly the same simple divine substance. Hologenmerian omnipresence means that God is wholly present in every part of space that exists: but, by itself, it cannot determine any particular number, infinite or otherwise, for these parts. Clarke wrote of God that he 'is at all times equally present both in his simple essence and by the immediate and perfect exercise of all his attributes to every point of the boundless immensity as if it were really all but one single point.'¹⁴⁰ It would be all the same to God if there *was* to be just one single point, with him wholly present in it.

But then, it does not seem that any relations that the parts of space bear to bodies or to other created things could do the job of diversifying them either, because space is supposed to be prior to, and independent of, all creation. Newton tells us in so many words: 'extension is not created but has existed eternally.'¹⁴¹ But Newton also believed that the creation of the world took place in the relatively recent past. Perhaps he accepted this more on religious grounds than on scientific or philosophical ones (he took the Biblical chronology pretty seriously, as his *Chronology of Ancient Kingdoms* makes clear), but he accepted it nonetheless. Evidently, then, there was already space (and time) before the created world existed at all. Indeed, not just space, but a space that was already distinguishable into parts: 'each and every particle of space is *always*'.¹⁴² Moreover, even now, although some regions of space are occupied by creatures, many others are not: Newton believed that most of the universe was void. And, even in those regions that are now occupied, Newton believed that the space would still remain if those current occupants were to depart or be annihilated. In short, space and its diverse parts are independent of the creatures that may or may not come to occupy them.

Now, it should be acknowledged that neither Newton nor Clarke (not to mention Lessius or Oresme) ever actually tried to address this problem head-on—to wit, the problem of finding an objective foundation *in re* for the distinctions we draw

¹⁴⁰Clarke 1998, p. 35 (*Demonstration*, §6).

¹⁴¹Newton 2004, p. 31/Newton 1962, p. 143 (*De gravitatione*). See also p. 33/p. 145; and Newton in McGuire 1978b, p. 121.

¹⁴²Newton 2004, p. 91/Newton 1999, p. 941 (General Scholium).

between the various parts of space, if we cannot base them on its relations either to God or to creatures. Consequently, what follows must fall more into the category of a reconstruction than a direct interpretation of their position. It is also something of a digression, concerned as it is with Newton and Clarke more than with More himself. Still, there does seem to be a solution available here; and, given that it embraces a range of themes from several different parts of the present work, I feel that such a digression does warrant a couple of pages at least. The solution is to associate such parts not with *actually existing* bodies, but with *potential* bodies. For, even if infinite space is supposed to be prior to the actual existence of all creatures, it is not at all clear that anyone would have wished to regard it as prior to the *possibility* of their creation. Quite the contrary. As we saw in Chap. 3, More himself had, at certain times, directly equated space with such a possibility. As we saw in Chap. 4, Isaac Barrow did the same. And, as we also saw there, even Newton came fairly close to this, comparing space—up to a point—with Aristotelian first matter.

I have already noted that Newton and Clarke regarded space as a consequence of the existence of an omnipresent being, but now look at a remark that Clarke made about that omnipresence itself: ‘the infinity or immensity or omnipresence of God can not otherwise be proved than by considering *a priori* the nature of a necessary or self-existent cause’.¹⁴³ Admittedly, in the argument that actually followed, it was the ‘necessary or self-existent’ bit of this that Clarke opted to focus on: but I should like instead to consider the ‘cause’ part of this remark. For what, after all, is the ultimate ground of the possibility of creation supposed to be, but the omnipotent power of the creator? And, as we saw in Chap. 5, divine omnipresence had regularly been linked to such divine omnipotence. The traditional argument for God’s omnipresence rested upon the premise that God could act upon spatial things, which he would not be in a position to do unless he was, in some sense, spatially present wherever they were. A few nullibists might have resisted the further move, from a merely virtual presence to a genuinely substantial one: but even Cartesians like La Forge or Le Grand were happy to declare that the ‘immensity of God is nothing but his omnipotence, by which he is present to all creatures in general because he creates them and contains them’, and that ‘his *Immensity* is nothing else, but his *Omnipotence*, by which he is present to all his *Creatures*, Producing and Preserving them.’¹⁴⁴

Consider what God’s essential omnipotence actually amounts to: it is an ability in God to create a limitless variety of different co-existent creatures. But these creatures—the corporeal ones, at any rate—will be essentially impenetrable. For Newton and Clarke, impenetrability was indeed the principal, defining attribute of bodies.¹⁴⁵

¹⁴³ Clarke 1998, p. 120 (‘An Answer to a Seventh Letter Concerning the Argument *a priori*’).

¹⁴⁴ La Forge 1997, p. 117 (ch. 12); Le Grand 1694, p. 85b (bk. 1, pt. 3, ch. 7, §8).

¹⁴⁵ For Newton on the essence of matter, see Newton 2004, pp. 13, 27–29 (*De gravitatione*: Newton 1962, pp. 122, 138–140); 87–89 (*Principia*, bk. 3, under Rule 3: Newton 1999, pp. 795–796); 120–121 (Newton to Cotes, c. March 1713: Newton 1959–1977, vol. 5, pp. 398–399); etc. In addition to their being impenetrable, Newton also tended to add that bodies should be mobile. For Clarke on the essence of matter, see Clarke 1998, p. 58 (*Demonstration*, §10). Whereas Newton

Even Descartes, although he might have preferred to define body simply in terms of extension, believed that all bodies or extended things were impenetrable, as we saw him argue in his correspondence with More (pp. 64–66 above). Hence, if a limitless variety of bodies is going to be capable of co-existing at a single moment, they cannot also coincide in a single point, but will need to be spread out. God's omnipotence thus amounts to his being able to produce bodies in different places. But, for God to be able to act in a place, Newton would certainly insist that his own substance would need to be present therein: his virtue cannot subsist without his substance. And so (as a holenmerian might put it), God's omnipotence will entail the infinite repetition of the whole of his indivisible substance, thereby generating the infinitely many places in which he *could* act. So God's omnipotence will give us his omnipresence, and his omnipresence will give us space. But, as Isaac Barrow observed, the existence of space did not mean that there was 'a Being really eternal and infinite, unproduced and independent upon God', for all that was really being asserted was 'his unlimited Power of producing and disposing Bodies at his Pleasure'.¹⁴⁶ This multiplicity of places still only referred to the *possibility* that really distinct bodies could be put into them. But God could then realise that possibility, by actually exerting his power. And, now recalling Newton's hypothesis about how bodies might be created, as set out in *De gravitatione*, such creation could be accomplished simply by producing determinate instances of the property of impenetrability in different places.

But these places are only different with respect to the potential creatures that God can thus produce within them. They will not be diversified in relation to God's substance as such, for that will be wholly present in each one. They will not be diversified in relation to actual creatures either, for they must already be there, prior to creation, in order to render the creation of impenetrable things possible at all. It is this, the fact that impenetrable things *can* be created and co-exist together, that serves to distinguish the various parts of space from one another.

However, when different creatures actually *are* created in these places, they will not merely co-exist in some haphazard fashion, but will be geometrically ordered with respect to one another. Moreover, those geometrical relations will subsist in space itself, even prior to the creation. For now let us recall something else that we also saw about Newton's position in Chap. 4: 'We firmly believe that the space was spherical before the sphere occupied it, so that it *could* contain the sphere; and hence as there are everywhere spaces that *can* adequately contain any material sphere, it is clear that space is everywhere spherical. And so of other figures.'¹⁴⁷

himself was comfortable with the term 'impenetrability', Clarke generally tended (as here) to follow Locke in favouring the term 'solidity'. Compare Locke 1975, p. 123 (bk. 2, ch. 4, §1). But nothing much hung on that merely terminological preference. Elsewhere, Clarke would happily write: 'Wherefore not *Extension*, but *solid Extension*, *impenetrable*, which is endued with a *Power of resisting*, may (as was before said) be more truly called the *Essence of Matter*.' Rohault and Clarke 1729, vol. 1, p. 24 n. 1 (on pt. 1, ch. 7, §8).

¹⁴⁶Barrow 1734, p. 178.

¹⁴⁷Newton 2004, p. 23/Newton 1962, p. 133 (*De gravitatione*).

Note the added emphasis: Newton himself was linking these spatial figures to the *possibility* that they might contain congruent material figures. But note too that, even before the material figures were actually put into it, space itself was already thus figured. Likewise, when Newton was exploring the analogy between space and Aristotelian prime matter, the point at which he felt the analogy ran out lay in the fact that the former, unlike the latter, involved ‘what’ and ‘how constituted’ and ‘how much’.¹⁴⁸ So how much of space is there? Infinitely much, to the extent that God’s creative power is infinite. And what is it? It is extension. And how is it constituted? Geometrically. It is not just any old extension: it is a three-dimensional Euclidean extension. Geometrical relations (distances, angles, etc.), together with the figures that they define (spheres, etc.), will not pertain to God’s own omnipresence, for geometrical relations can only link different things, whereas God’s omnipresence means the ubiquitous repetition of one and the same thing. Instead, geometrical relations will pertain to space insofar as it serves as a foundation for the potentiality of corporeal creation.

A group of different parts of space—different places—will bear certain relations amongst themselves, to the extent that bodies can be produced within them that will bear the very same relations amongst *themselves*. The geometrical relations among the parts of space will need to be in some sense actual, and not purely potential as the bodies themselves still are, even though they are still to be referred to merely potential bodies: for as these are the parameters whereby the potentiality of *any* corporeal creation will find itself constrained. Although an infinite number of alternative arrangements of bodies can potentially be created in space, each and every one of these arrangements will still need to obey one and the same set of Euclidean principles. God does not survey a variety of different potential systems of geometry, and then go on to select just one of these to actualise. Rather, geometry is an immutable, mathematical system, the necessary generation of which is part and parcel of the emanation of space itself, as a necessary consequence of God’s omnipotent capacity to create bodies. Squares are fine; circles are fine: but square circles are firmly ruled out. One is put in mind of More’s early discussions of ‘ananke’ or ‘impossibility’—see Chap. 2—which More regarded as constraining the potentiality of corporeal creation, while also being inescapably bound up with that very potentiality as such. And yet, by thus instantiating actual geometrical relations, Newton’s space can be regarded as three-dimensionally spread out, even though God’s own substance is not. The *existence* of space will refer upwards to God’s own essence and existence, but its *structure* will refer downwards to the structure that any arrangement of possible products of God’s omnipotence will be obliged to instantiate, rather than to the holenmerian ubiquity of the simple divine substance wherein that omnipotence itself subsists.

¹⁴⁸Newton 2004, p. 29/Newton 1962, pp. 140–141 (*De gravitatione*).

Chapter 7

Living Matter

1 Life and Soul

More felt that a notion of pure, undifferentiated substance in general was unattainable. As he repeated throughout his career, and as we ourselves already observed in the last chapter, his opinion was that we could only grasp any given substance through certain principal attributes, and that these attributes were such that no reason could be given, nor should any be demanded, for why or how the substance should have them.¹ Now, this basic principle was in fact shared by both More and Descartes: but the two men spelt it out in very different ways, disagreeing about precisely *which* attributes ought to be regarded as the primary, defining characteristics of different kinds of substance. For Descartes, as is well known, the principal attribute of body was extension, while the principal attribute of mind or soul was thought. For More, at least from 1659 onwards, extension as such was not going to help us to discriminate between bodies and souls at all, for it pertained equally to both. But, in addition, he did not accept that the essence of soul should be understood in terms of thought either. Rather, as we saw in the last chapter, he identified the defining attributes of the two species of substance as impenetrability, discernibility and self-inactivity for bodies, and the opposites of these for spirits: penetrability, indiscernibility and self-activity. We have already examined More's notions of impenetrability, discernibility and their opposites: let us now turn to his notion of self-activity.

¹See *Observations upon Anthroposophia Theomagica, and Anima Magica Abscondita*, pp. 6, 47 (preamble; and upon *Anima Magica Abscondita*, pag. 4, lin. 23); *The Second Lash of Alazonomastix*, pp. 161–163 (upon [page 93], observation 4); *The Immortality of the Soul*, pp. 5, 7 (bk. 1, ch. 2, §§8–10 and axioms 8 and 9, together with the note on §9); *Enchiridion ethicum*, pp. 210–211 (bk. 3, ch. 4, §3); *Enchiridion metaphysicum*, vol. 1, p. 127 (ch. 28, §§14–15); *Saducismus Triumphatus*, pp. 218–219 (*An Answer to a Letter of a Learned Psychopryist*, §13).

More's insistence on defining soul in terms of activity, as opposed to thought, was a constant throughout his career. As early as *Psychathanasia*, he was confidently declaring: 'Self-moving substance, that be th' definition / Of souls, that 'longs to them in generall.'² As late as *Enchiridion metaphysicum*, he was still defining a spirit as: 'An immaterial substance intrinsically endowed with life and the faculty of moving' (with the notion of immateriality as such then being unpacked in terms of those two other features of indiscernibility and penetrability).³ What this 'life' meant for More was that a soul had a power of spontaneously initiating change. This might indeed involve thought, thought being just one sort of internal change of which certain classes of soul were capable. But it encompassed many more sorts of change than that. And, crucially, the domain of this power of spontaneous activity was not limited to the initiation of changes in the soul's own internal state. That was part of it, but actually it was only a fairly minor part. The way that a soul more properly manifested its power was not by acting on itself at all, but rather by acting on something distinct from itself, namely the body to which it happened to be united. In More's opinion: 'The very nature of the Soul, as it is a Soul, is an aptitude of informing or actuating a Body'.⁴

Contrast this with Descartes' position. Descartes did more than merely define 'mind' in terms of thought: More actually would have been willing to accept that definition, just as long as it was restricted to that narrower term, 'mind'. Indeed, this was the very reason why More preferred to frame things in terms of 'soul' or 'spirit', rather than 'mind', for his opinion was that thinking minds formed only a proper subset within a much larger and more general class of immaterial substances—and that the defining feature of that whole class, common to *all* of its members, was life or self-activity. More did accept that *only* spirits could possess thought and perception, but he expressly denied that *all* spirits did so.⁵ This was the really substantive difference between More and Descartes, for the latter believed that thinking minds were indeed the *only* immaterial substances around. When discussing such substances, Descartes was perfectly content to use the terms 'soul' and 'mind' interchangeably, and to define the essence of so-called souls as well as so-called minds in terms of thought.⁶ As he stated quite explicitly in the *Principles*

²*The Complete Poems*, p. 48b (*Psychathanasia*, bk. 1, cant. 2, st. 25).

³*Enchiridion metaphysicum*, vol. 1, p. 118 (ch. 28, §3).

⁴*Conjectura Cabbalistica*, p. 223 (*The Defence of the Moral Cabbala*, ch. 2, on vers. 23). See also p. 31 (*The Moral Cabbala*, ch. 2, §23). Byers 2006 discusses this conception of life as self-motion, claiming that both Descartes and his critics—including More—misunderstood the Aristotelian notion of self-motion, taking it to pertain solely to local motion whereas Aristotle himself had been more concerned with metabolic change. (For Byers's discussion of More, see pp. 740–741 and 750–753). Whatever the merits of this as an analysis of Descartes, it far from clear that More ever dreamt of placing such a restriction on the notion—although *one* prominent element in his conception of self-motion certainly did relate it to local motion.

⁵*A Collection of Several Philosophical Writings*, The Preface General, p. xiv (§12).

⁶See, among many other such passages, CSMK 55, 165–166, 189, 202, 236 (AT 1:353, 3:273, 3:423, 3:475–476; 4:120).

of Philosophy: ‘I do not recognize more than two principal kinds of things: one is intellectual or cogitative things, that is, things pertaining to the mind or to thinking substance; and the other, material things, or things pertaining to extended substance or body.’⁷ More regarded this notion, just as he did the theory of nullibism, as a novelty that Descartes had plucked out of nowhere, and for no good reason. The notion that ‘there is no *life* but what is *Cogitative*,’ he wrote, ‘is a conceit taken up but yesterday, and I believe will as soon expire.’⁸ As a matter of fact, the first part of that suggestion did actually receive some support from Descartes himself, who proudly declared: ‘I am the first to have regarded thought as the principal attribute of an incorporeal substance.’⁹ Although this probably was a bit too strong, just as More’s similar claims regarding Descartes’ authorship of nullibism had been, it is certainly true that a conception of soul that was drawn up in terms of life, rather than thought, was far more prevalent historically, shared by both Aristotle and Plato among many others.¹⁰ Notwithstanding his wider—and ever-increasing—willingness to chart new ground of his own, this was a case where More preferred to follow the more well-trodden path.

This basic difference of opinion between More and Descartes over the essence of the soul manifested itself in a variety of ways on specific philosophical issues. Consider, for instance, the problem of how a mind or soul could be united to a body. Descartes rather notoriously tended to avoid tricky questions about the precise nature of this union. He insisted that all of us, even those who were not given to philosophical reflection—indeed, those people above all—could very easily know that such a union did in fact obtain, because the sensations of hunger, thirst, pain and so on would clearly reveal its existence to us. But he also conceded that what the union actually involved could be ‘known only obscurely by the intellect alone or even by the intellect aided by the imagination’.¹¹ This obscurity arose as a direct result of Descartes’ definition of the essence of the mind or soul in terms of thought: for there is no obvious logical connection between thought on the one hand and a power to move a body on the other. Descartes, in the view of many people in his own time and since, faced a major philosophical problem in explaining why something defined in terms of the former should additionally happen to find itself endowed with the latter. But this problem simply did not arise for More. From More’s point of view, to have the power to animate a body was just *what it was to be a spirit*. Hence, there was no more need for More to explain how a soul could act on matter

⁷Descartes 1991, p. 21/AT 8A:23/CSM 1:208 (pt. 1, §48).

⁸*Remarks upon Two Late Ingenious Discourses*, p. 23 (remark 13, upon *An Essay touching the Gravitation and Non-Gravitation of Fluid Bodies*, ch. 6).

⁹CSM 1:297/AT 8B:348 (‘Comments on a Certain Broadsheet’, on the second article). This is quoted by Garber in ‘Soul and Mind: Life and Thought in the Seventeenth Century’ (Garber and Ayers 1998, vol. 1, pp. 759–795, at p. 767), which should be read in full for background to the wider debate at issue in this section.

¹⁰See, for instance, Plato 1963, pp. 492–493 (*Phaedrus*, 245c–246a); Aristotle 1984, vol. 1, pp. 656–659 (*On The Soul*, bk. 2, chs. 1–2; 412a1–414a28).

¹¹CSMK 227/AT 3:691–692 (Descartes to Elizabeth, 28 June 1643); and elsewhere.

than there was for Descartes to explain how a soul could think. This was just another of those facts for which no reason could be given, nor ought to be demanded. A soul's ability to act on matter, as far as More was concerned, flowed logically from the mere existence of a substance with such a nature.

Another area, where More and Descartes' contrasting views on the essence of the soul made themselves felt, concerned the issue of animal souls. Descartes did not believe that there were any such things, at least not if 'soul' was supposed to mean something immaterial. He acknowledged that animals might be ascribed souls in an equivocal sense, using that term to refer to their blood or to some other corporeal component of their overall physical structure: but he stressed that such a corporeal 'soul' was *radically* unlike the sort of immaterial, thinking substance that governed a human being.¹² Descartes felt that he had good reasons for maintaining that animals could not think, and he was surely on even safer ground in denying that plants were animated by thinking principles. But then, given that he did not countenance any other kind of immaterial substance besides thinking substance, he had no option but to deny that such things were animated by immaterial principles at all.

Descartes did, of course, put a great deal of effort into showing how the behaviour of animals and plants might be adequately explicable in purely mechanical terms. Indeed, with the arguable exception of the ancient atomists, he was one of the first people ever to attempt such mechanical explanations at all. The fact that such explanations were really not on the table before the seventeenth century was, after all, precisely the reason why earlier philosophers had traditionally felt the need to postulate immaterial principles for such creatures. The traditional view (principally, but by no means exclusively, associated with Aristotle) was that not only were the bodies of lower animals animated by immaterial souls, but so too were plant bodies; and these souls had better be defined in terms of life, given that, at least in the case of the plants, they surely could not be defined in terms of thought. More, for his part, spurned Descartes' novel 'conceit' in favour of this more traditional view. He criticised Descartes' position in their correspondence,¹³ and he never wavered in his rejection of it throughout his whole career. Even in the first flush of his ardour for Descartes' mechanical philosophy, More always felt that its domain should not be allowed to extend to animals or plants. He could not accept that mere mechanism could be sufficient to explain how the various diverse organs of their bodies should all come to conspire so harmoniously together towards the preservation and improvement of the whole. Moreover, it seemed that such organic structures did more than just react to external physical stimuli: More was satisfied that they could also move and change *spontaneously*. But any such spontaneous alterations, being apparently inexplicable through appeal to the qualities of the bodies themselves, would again call for the activity of spiritual principles of life, united to and operating on the matter.

¹²See, for instance, CSM 2:246/AT 7:356; CSM 2:288/AT 7:426–427; CSMK 62/AT 1:414–415; CSMK 230/AT 4:64–65.

¹³See Cohen 1936.

More's four main species of spirits, as he enumerated them in *The Immortality of the Soul*, were: 'Seminal Forms [of plants], the Souls of Brutes, The Humane Soul, and that Soul or Spirit which actuates or informs the vehicles of Angels.'¹⁴ Seminal forms would possess only plastic (i.e. formative) and vegetative powers; the brute souls of animals would be plastic but also sensitive; and human souls would be plastic, sensitive and rational. More noted that the classical Platonists had written of still more sublime orders of thoroughly disembodied, exclusively intellectual spirits—the 'Noes' and 'Henads'—but he shrugged and moved on: 'there being more Subtilty than either usefulness or assurance in such like Speculations, I shall pass them over at this time.'¹⁵

As for angelic souls, these would actually be just like human souls as far as their powers were concerned: the only real difference would be in the nature of the corporeal vehicles they animated.¹⁶ For, as a matter of fact, More believed that even angelic souls were united to bodies, albeit subtler ones than ours. In More's view, it was not only essential to a spirit that it *could* act upon a body: it was essential that it should actually *do* so. In defining the essence of the soul in terms of its power of acting upon a body, he had more in mind than a mere capacity to operate as an animating principle: such operation would need to be constantly actual. In much the same way as Descartes did not believe that a soul could exist without actually thinking, More did not believe that a soul could exist without actually animating a body, for this would mean that it was failing to do the very thing that defined it *as* a spirit. As he wrote in *The Immortality of the Soul*: 'what is simply active of it self, can no more cease to be active than to Be'. (He added that this fact alone was already sufficient to demonstrate 'that *Matter* is not active of it self, because it is reducible to Rest').¹⁷ It clearly followed from this that souls could never become completely disembodied. Since the human soul was really distinct from any particular body to which it happened to be united, the former could indeed survive the death and disintegration of the latter. But, nevertheless, it would forever continue to have 'a very strong Propension, natural Complacency, or *essential Aptitude* always to join with some Body or other'.¹⁸

Over on the corporeal side of the union, meanwhile, More felt that a body needed to be properly disposed if it was going to be fit to join with such a spirit. He described a 'vital congruity' between soul and body, which was supposed to make the two substances suitable for union, and he wrote of this vital congruity that it was 'chiefly in the *Soul* it self, it being the noblest Principle of Life; but is also in the *Matter*, and

¹⁴*The Immortality of the Soul*, p. 29 (bk. 1, ch. 8, §1).

¹⁵*The Immortality of the Soul*, p. 30 (bk. 1, ch. 8, §8). See also the note to this section at pp. 31–32; and p. 160 (bk. 3, ch. 1, §3). Also *Two Choice and Useful Treatises*, second part, p. 51 (*Annotations upon Lux Orientalis*, upon ch. 8, pag. 67); and p. 238 (*Annotations upon the Discourse of Truth*, The Digression).

¹⁶*The Immortality of the Soul*, p. 30 (bk. 1, ch. 8, §§6–7).

¹⁷*The Immortality of the Soul*, p. 26 (bk. 1, ch. 7, §1).

¹⁸*An Explanation of the Grand Mystery of Godliness*, p. 156 (bk. 6, ch. 5, §2).

is there nothing but such modification thereof as fits the *Plastick* part of the Soul, and tempts out that Faculty into act'.¹⁹ The contribution that the soul would make to this vital congruity derived simply from its essence as a principle of life. As for the contribution from the body's side, More felt that there were some arrangements of matter that were better suited than others to being animated by particular kinds of spirit. For instance, a spirit might find itself thwarted in the exercise of the locomotive powers that were essential to it, if it was inadvertently to find itself united to a heavy rock or a fixed lump of metal: legs, or at any rate some kind of organ of movement, were going to be needed. Or, if the spirit was lucky enough to belong to the class that were endowed with sensitive powers, then an animal body, with eyes and ears, would make for a more appropriate vehicle for it than a plant body which lacked such organs. It is plain that More did indeed believe that there was something special about the structure of the eyes, which enabled them to play their role as the physical seat of vision, for he appealed to the final cause of the apparent design in these physical organs in the course of arguing for the existence of a wise and providential God.²⁰ Not just any old matter would do.

But then, as a matter of fact, More did not limit the class of appropriate bodies to terrestrial ones alone. He felt that the soul actually had a 'triple vital congruity', such that an aggregate of particles of air or aether could suit it equally well, just as long as these were coagulated and arranged in an appropriate manner.²¹ Having quit its terrestrial body at death, his view was that it would take on first an aerial vehicle, and finally an aethereal one, so that it might continue to exercise the power of animating matter that was so essential to it, but do so in a more dignified form. We will be returning to this point in our final chapter.

2 Gradual Monism in More's *Philosophical Poems*

We first met the Ogdoas of More's philosophical poems in Chap. 3. This was a Neoplatonic hierarchy of reality, comprising eight levels of being, from Ahad (The One, God) at the top, down to Hyle (prime matter, pure potentiality) at the bottom, with Tasis (extension, the sensible world) just above this in seventh place. For present purposes, the important point to emphasise about this great chain of being is its continuous nature. Although entities at the various different levels might possess their attributes in different ways and to different degrees, More felt at this time that the entities at each level would nevertheless be characterised by fundamentally the same kinds of attributes. For, ultimately, there was just one kind of reality available

¹⁹*The Immortality of the Soul*, p. 125 (bk. 2, ch. 14, §8).

²⁰*Refutation of Spinoza*, p. 87; *An Antidote Against Atheism*, p. 69 (bk. 2, ch. 10, §1).

²¹*The Immortality of the Soul*, pp. 123–137, 160–161 (bk. 2, chs. 14–15; bk. 3, ch. 1, axiome 28 and §4); *Two Choice and Useful Treatises*, second part, pp. 106–120 (*Annotations upon Lux Orientalis*, upon ch. 13, pag. 102); etc.

to be possessed. Everything that emanated from God needed to reflect his own nature to some degree or other. Consequently, just as long as an entity had any reality at all, it would have the same kind of reality as everything above and below it. But life or self-activity certainly characterised the higher levels of the Ogdoads. Consequently, it would turn out to be characterising the lower levels too. That would certainly include Tasis, and it might well even turn out to include Hyle too.

But then where did this leave bodies? As we just discussed, More believed right from the start of his career that life or self-motion was to be regarded as the principal, defining attribute of spirit; while body, its opposite, ought to be defined by the total absence thereof. So, if the components of Tasis should now turn out to be alive, at least to some small degree, then presumably this ought to mean that they are not properly to be construed as bodies in the strict sense after all, but should instead be regarded as constituting just another order of spirits. More's system will turn out not to have any place for bodies in the strict sense at all; and More was indeed committed to that conclusion. In *Antipsychopannychia*, for instance, he wrote: 'I nere ment / To grant that there's any such thing existent / As a mere body: For all's life, all spright'.²² Admittedly, when he was no longer so directly concerned with these specific metaphysical considerations, More was willing to adopt the more ordinary locutions, and he would still use the term 'bodies' to refer to the elements of Tasis; to 'feign' this universe corporeal, as he put it.²³ But such locutions, although common and convenient, were not metaphysically accurate. Whenever it came time to explicate the nature of such so-called bodies in detail in these poems, More would play up their vital character.

Thus, in the definition of 'Body' in the Particular Interpretation of the 1646 edition of *Democritus Platonissans*, reprinted in *The Interpretation Generall* of the 1647 edition of the *Philosophicall Poems*, More explained that a body was to be understood as:

nothing but a fixt spirit, the conspissation or coagulation of the cuspidall particles of the Cone, which are indeed the Centrall Tasis, or inward essence of the sensible world. These be an infinite number of vitall Atoms that may be wakened into divers tinctures, or energies, into Fiery, Watery, Earthy, &c.... These be the last projections of life from the soul of the world; and are act or form though debil or indifferent; like that which they call the first matter. But they are not merely passive, but meet their information half way, as I may so speak.... These be the reall matter of which all supposed bodies are compounded, and this matter (as I said) is form and life, so that all is life and form what ever is in the world, as I have somewhere intimated in *Antipsychopan*. But how ever I use the term *Body* ordinarily in the usuall and vulgar acception.... For though they be Centrall lives, yet they are neither Plasticall, Sensitive or Rationall; so farre are they from proving to be the humane soul, whose nature is there discust.²⁴

The density and abstruseness of this passage mean that it requires more than just a few words of commentary. First of all, it will be recalled that the 'Cone' was

²²*The Complete Poems*, p. 114b (*Antipsychopannychia*, cant. 3, st. 24).

²³*The Complete Poems*, p. 94b (*Democritus Platonissans*, st. 35).

²⁴*The Complete Poems*, p. 160a (*The Interpretation Generall*: 'Body').

More's symbol for the hierarchy of reality, with The One at the base and Hyle at the cusp. More's attitude to Hyle, as we saw in Chap. 3, did develop somewhat between 1642, when he really did treat it as a *pure* potentiality in the truest sense, and 1646–1647, when we find him referring, as here, to cuspidal *particles*. More would later observe that he had rejected 'the fond conceit of the *Aristoteleans*, who produce Substantial Forms *ex potentia materiae*', and instead admitted and avowed 'with *Des-Cartes* that the *Matter* is every-where of one *homogeneous* nature as to the substance it self'.²⁵ For both More and Descartes, there was, at bottom, just one single essence common to all bodies, broadly indifferent between the various accidental forms and modifications that it could take on, rather than an array of fundamentally different essences corresponding to the different elements (fire, water, earth, etc.) according to the distinct substantial forms that defined these. However, unlike Descartes with his indefinitely divisible extended substance, More preferred to explicate this common essence in terms of a universal mist of indiscernible atomic particles; and he explained in these poems that, when masses of such atoms came to be coagulated in a variety of different ways, they would manifest themselves sensibly in the forms of these various different elements. The atoms, therefore, did still retain something of the flavour of Aristotelian (or Plotinian) prime matter, in that they had the *potential* to produce all manner of different compounds by coming together and congealing in a variety of different ways. And it was only when these atoms were thus 'wakened' into such compounds that the familiar world of bodies would arise.

But such 'supposed bodies', and even their component atoms individually, would still possess at least some minimal form of intrinsic life. And they would thereby differ still further from the utterly dead matter of Descartes: for *More's* matter, just as he observed in this passage, was form and life. Notice, for instance, how he referred to 'vital' atoms, playing the role of first matter indeed, but not in a wholly passive way. Or, again, although he acknowledged that these atoms lacked plastic, sensitive or rational powers, and hence were more lowly than the human soul—indeed, lowlier even the seminal forms that animated plants—they were nevertheless to be understood as 'central lives'. And then the sensible objects that collectively constituted Taxis were, as More also observed in this same passage, to be understood as coagulated or 'conspissated' (i.e. thickened) masses of these cuspidal particles. But then, as he also said elsewhere, they were to be understood as conspissated *spirit*—'For body's but this spirit, fixt, grosse by conspissation'²⁶—for ultimately these particles were themselves spiritual. (Remember also George Cheyne's description, touched upon in the last chapter (p. 222), of body as 'an infinitely condensed or incrassated *spiritual* Substance.'²⁷ And then, if even the individual atoms were

²⁵*The Apology of Dr. Henry More*, p. 486 (ch. 1, §12).

²⁶*The Complete Poems*, p. 92b (*Democritus Platonissans*, st. 13). Stanzas 10–16 are on this topic, and are well worth studying in detail.

²⁷Cheyne 1725, Part II, p. 119. See Cheyne's elucidation of this notion at pp. 120–123.

going to possess a vital character of their own, this should certainly be all the more true of their compounds, those being one step further up the hierarchy, in the direction of the more pure and perfect spirits at the higher levels. Ultimately, if the matter itself is form and life, then *all* is life and form, whatever is in the world.

And then, finally, as for the *reason* why More felt that some minimal degree of life and (hence) spirituality needed to be ascribed both to the vital atoms individually and to their compounds, this was precisely because they were ‘the last projections of life from the soul of the world’. Or, as he put it in a different entry in *The Interpretation Generall*: ‘The multiplide *Cuspis* of the *Cone* is nothing but the last projection of life from *Psyche*, which is a liquid fire, or fire and water, which are the corporeall or materiall principles of all things.’²⁸ ‘Psyche’ (‘the soul of the world’) was located at the third level of the *Ogdoas*, and was roughly equivalent to the Holy Spirit, the third person of the Trinity, the same Spirit of God who ‘moved upon the face of the waters’ in the formation of the world according to Genesis 1:2. Although everything did ultimately emanate from The Father, right at the top of the scale, it had to come via the Holy Spirit, this being God’s active point of contact, as it were, with the created world. But, since *Psyche* (and the Trinity as a whole) was entirely active and spiritual, and since it could only provide to its emanating creatures that which it had in itself to provide, it followed there could be no purely passive entities in the created world. ‘Whatever is,’ wrote More in *Democritus Platonissans*, ‘is Life and Energie / From God, who is th’ Originall of all.’²⁹

To be sure, different creatures would inherit different degrees and different kinds of activity, according to their proximity to their source. Some of the superior creatures, in the higher ranks of the *Ogdoas*, would get to enjoy rational powers, or at least sensitive or vegetative ones. These would be human minds, animal souls and the seminal forms of plants respectively, and they would be more ‘real’ than mere bodies by virtue of being more like their source. But nothing could be *utterly* unlike its source. Every creature would need to inherit *something* from its creator, for it did not have anywhere else to get its properties from; and, if it could not be ascribed any properties at all (i.e. real, positive properties, not just privations), then no assertion of existence for it could hold any real meaning at all. But its wholly active and spiritual creator had nothing to give it but life.

3 Life and Causation in the More-Descartes Correspondence and Beyond

More did eventually turn his back on this form of gradual monism, whereby sensible objects were regarded as being intrinsically alive, and hence spiritual, at least in some minimal sense. However, he continued to cling to it for a while, even after his initial

²⁸*The Complete Poems*, p. 160b (*The Interpretation Generall*: ‘*Cuspis* of the *Cone*’).

²⁹*The Complete Poems*, p. 92a (*Democritus Platonissans*, st. 10).

exposure to Cartesianism and his excitement at the success of Descartes' mechanical philosophy in dealing with (at least some) natural phenomena. After all, most of the passages cited in the last section were actually drawn not from the 1642 *Psychodia Platonica*, but from 1646's *Democritus Platonissans* and the 1647 edition of the *Philosophical Poems*, both of which postdated that discovery; and we find similar ideas expressed directly to Descartes himself in their correspondence of 1648–1649. Now, this might seem puzzling, for mechanism would appear, *prima facie*, to be the very antithesis of a vitalist theory of living matter. But, as a matter of fact, there was no direct conflict between the two theories at all. The secret lay in the way in which causal relations were to be understood.

On this point, a comparison with some of the later Cartesians might be instructive. The Cartesians were, almost to a man, committed to a mechanical treatment of corporeal interactions. But many of them, at least, refused to grant to bodies any efficacious powers to affect one another. In the hands of the occasionalists, this responsibility was transferred to the direct agency of God himself. It was God who would move one body up against another, and then God who would impart motion into the second body. But such an interaction would still remain mechanical, to the extent that the specific details of the respective post-impact motions that God gave to the two bodies would be fully determined by the physical circumstances of the impact. Of course, these circumstances would have themselves been entirely determined by God too: but he would opt to regulate his own behaviour in the physical world in such a way that corporeal interactions would obey regular laws of nature, laws that could be fully stated exclusively in terms of the 'mechanical' (or 'primary') qualities of bodies, i.e. the various modes of extension: size, shape and motion or rest.

Now, More himself was never an occasionalist. However, at this early stage of his career (after he embraced Cartesian mechanism—at least in certain areas—but before he abandoned it again in favour of his mature theory of the 'Spirit of Nature'), he does seem to have inclined towards a closely related thesis, one to which Steven Nadler has given the name 'occasional causation'.³⁰ Whereas ordinary transeunt efficient causation means that one object *A* simply produces a certain effect on another object *B* by means of the exercise of its own intrinsic power, occasional causation will take place when one object *A* induces another object *C* to produce an effect on *B* by *its* own power. The nature of this inducement is going to need to be explained, and the details of that explanation will depend upon the wider theory into which this basic scheme is embedded: but the important thing is that it should fall short of genuine efficacy. Occasionalism is then just a special case of this wider notion of occasional causation, where object *C* happens to be God. But *C* need not be God. It could in fact be none other than *B* itself.

For More in this period, when body *A* struck body *B*, and *B* started to move, it would be body *B* that was causing this motion, not body *A*. And the reason why *B* was capable of efficiently initiating motion in itself was precisely because it was

³⁰See Nadler 1993, pp. 63–68; and 1994, especially pp. 36–41.

alive. But the interaction might still qualify as a mechanical one for all that, in the sense that the post-impact motion of *B* would be determined by the physical circumstances of the impact, in accordance with a law of nature that could be fully drawn up in terms of mechanical properties. But, at a metaphysical level, there was no real transeunt efficient causation in play, in the sense of a genuine *communication* of motion from *A* to *B*.

More argued this point with Descartes directly, in his third letter:

Indeed, I have considered these first principles so scrupulously, that a new difficulty occurs to me concerning the nature of motion. For, seeing as how motion is a corporeal mode, just like figure, composition of parts, and the rest, how can it be that it should pass from one body into another, any more than the other corporeal modes can? And, in general, I cannot conceive how it could be that something which cannot exist outside a subject (as is the case with all modes), can nevertheless pass into a different subject.... For my part, I am more inclined to the view that there is no communication of motion at all, but that, from the impulse of one body, another body is, as it were, awakened into motion, just as the soul acquires a thought on this or that occasion. The body does not receive motion, so much as it puts itself into motion, on being reminded to do so by the other body. And, as I said a little way above, motion has the same relation to a body as a thought has to a mind. In fact, neither of them is received into the subject in which it is found, but both spring out of that subject. And, in fact, all that is called 'body' is really a stupefied and sottish life, inasmuch as, though it has neither sensation nor animadversion, it constitutes the last and faintest shadow and image of the divine essence, which I take to be the most perfect life.³¹

As a matter of fact, More was not the only critic of Descartes who preferred this way of understanding the underlying metaphysics of physical interactions. The argument was subsequently picked up by Margaret Cavendish (1623–1673), in her *Philosophical Letters* of 1664. (These letters were addressed to an unnamed female recipient: unlike More, Cavendish never got to put the point to Descartes directly). In a later section of this same work, Cavendish would also be criticising a wide variety of points in More's own writings (particularly *An Antidote Against Atheism* and *The Immortality of the Soul*): but, at this stage, she had Descartes in her sights, arguing against him in much the same manner as More himself had done.

For how can motion, being no substance, but onely a mode, quit one body, and pass into another? One body may either occasion, or imitate anothers motion, but it can neither give nor take away what belongs to its own or another bodies substance, no more then matter can quit its nature from being matter.... Truly, *Madam*, that neither Motion nor Figure should subsist by themselves, and yet be transferrable into other bodies, is very strange, and as much as to prove them to be nothing, and yet to say they are something.... But to return to Motion, my opinion is, That all matter is partly animate, and partly inanimate, and all matter is moving and moved, and that there is no part of Nature that hath not life and knowledge.³²

A little later, and much more famously, another figure who would also reject all efficient causal interactions between distinct created substances, and instead have their changes result from their own internal resources, was Leibniz. Much as More and

³¹*Epistolae quatuor*, p. 92/AT 5:382–383 (More to Descartes, 23 July 1649).

³²Cavendish 1664, pp. 98–99 (letter 30).

Cavendish had done, Leibniz rejected the notion that one and the same identical mode or accident might literally pass from one simple substance (or ‘monad’) to another. This was, for him, no more possible than that a mode should subsist apart from all substances: ‘The monads have no windows through which something can enter or leave. Accidents cannot be detached, nor can they go about outside of substance, as the sensible species of the Scholastics once did.... It follows from what we have just said that the monad’s natural changes come from an *internal principle*, since no external cause can influence it internally.’³³ Now, Leibniz was committed to mechanism as offering a correct *physical* theory of corporeal interaction, even more wholeheartedly than More himself ever was. But, when it came to the underlying *metaphysics*, Leibniz felt that the immediate causal responsibility for the changes in any given substance was not to be ascribed either to another created substance (as in the traditional theory of transeunt efficient causation), or to God (as in the occasionalists’ theory), but rather to the intrinsic power of the thing itself. Admittedly, he did then go on to embed this basic notion within a much more detailed theory of pre-established harmony, a notion that never so much as occurred to More (and which he would certainly have resisted had it done so, given his vigorous opposition to anything that smacked of the Calvinist predestination he had shrugged off as a child). Moreover, Leibniz’s theory was worked out in much more detail and with much more rigour than More’s vague hints about how one thing might be ‘awakened’ or ‘reminded’ to put itself into motion by another thing. Nevertheless, in the denial of a real efficient influence between creatures, and the notion that their changes would instead spring vitally from their own internal agency, More and Leibniz were in agreement.

To return to Descartes, however, he was not impressed by More’s proposal. On the first point, More’s objection that motion could not be communicated between bodies in any literal sense, on the grounds that numerically one and the same mode could not successively modify two different substances, he replied as follows:

You observe correctly that ‘motion, being a mode of body, cannot pass from one body to another’. But that is not what I wrote; indeed I think that motion, considered as such a mode, continually changes. For there is one mode in the first point of a body A in that it is separated from the first point of a body B; and another mode in that it is separated from the second point; and another mode in that it is separated from the third point; and so on. But when I said that the same amount of motion always remains in matter, I meant this about the force which impels its parts, which is applied at different times to different parts of matter in accordance with the laws set out in articles 45 and following of Part Two.³⁴

Just two paragraphs earlier in the same letter, Descartes had written: ‘The power causing motion may be the power of God himself preserving the same amount of transfer in matter as he put in it in the first moment of creation; or it may be the power of a created substance, like our mind, or of any other such thing to which

³³Leibniz 1989, p. 214 (‘The Monadology’, §§7, 11).

³⁴*Epistolae quatuor*, pp. 118–109 (i.e. the first p. 118, followed by p. 109; see the note on this edition in my bibliography)/CSMK 382/AT 5:404–405 (Descartes to More, August 1649).

he gave the power to move a body.’³⁵ Descartes might not have positively ruled out the possibility that the ‘other things’ to which God gave the power to move a body might include other *bodies*. But the general tone of the passage does seem to suggest that he considered this unlikely, and felt instead that such a power ought to be the province of a spirit, whether created or divine. Garber has argued that, with respect to the case of purely physical interactions among inanimate bodies, Descartes should in fact be read as an occasionalist, assigning that responsibility to God alone (even though he does not believe that Descartes was an occasionalist with respect to other sorts of interactions).³⁶ And Garber’s interpretation does seem reasonable, even though, as he recognises, the evidence for it is mostly circumstantial. Descartes did make plenty of references to, for instance, how God, just as he created corporeal motion in the first place, now preserves a constant quantity of motion in the universe. But then he also said that God does this merely by his ‘normal participation’ or ‘regular concurrence’ (*concursum ordinarium*),³⁷ which is not enough by itself to prove full-blown occasionalism. The fact is that Descartes never really provided a fully explicit statement, in terms of efficient causation, of what he did take to be the immediate source of the motion that a body acquired when struck by another.

In any case, the bottom line is that Descartes was completely unmoved by More’s complaint that motion could not be communicated between distinct bodies in a literal sense. And so too were the subsequent Cartesians, many of whom were perfectly happy to embrace the point. Cordemoy, for instance, considered what was going on when one body, B, drove another body, C, out of its place. And he concluded: ‘it cannot be said that the movement of the one should pass into the other, because it is evident that the movement of each one respectively is nothing but a way of being [*façon d’être*] which, not being separable from it, cannot in any way pass into the other; from whence it follows that there is something other than the body B (which is now at rest), which moved the body C.’³⁸ Or again, he wrote that B could not ‘communicate its motion into C, for the state [*estat*] of a body does not pass into another.’³⁹ As to what that other thing might be, the thing was *really* causing the motion in C given that B was not up to the task, Cordemoy’s answer was clear: it was God. For Cordemoy definitely was an occasionalist. He believed that God caused all of the motions in the world immediately, by producing these various ‘states’ or ‘ways of being’ in the bodies whose modifications they were.⁴⁰

Another Cartesian, who also gave his explicit endorsement to the point that More had earlier made to Descartes, was Jacques Rohault. Rohault was indeed quite insistent that ‘a *Mode*, or an *Accident*, cannot be transferred from that Substance which

³⁵ *Epistolae quatuor*, p. 118 (i.e. the first p. 118: see the same note in my bibliography)/CSMK 381/AT 5:403–404 (Descartes to More, August 1649).

³⁶ See Garber 1992, pp. 299–305; Garber 1993.

³⁷ Descartes 1991, p. 58/AT 8A:61/CSM 1:240 (pt. 2, §36).

³⁸ Cordemoy 1666, p. 133 (discours 5).

³⁹ Cordemoy 1666, p. 100 (discours 4).

⁴⁰ See Ablondi 2005, ch. 3. Ablondi himself refers to these two passages, at pp. 58 and 99.

is the Subject of it, to any other Substance; for if it could, it would not then have depended entirely upon the first Substance when it was in it, which is absurd.⁴¹ However, from this common starting point, Rohault did not go down the same vitalist path that More had earlier taken; and he did not go down Cordemoy's occasionalist path either. Resisting occasionalism, he wrote:

But because it is not the Part of a Philosopher to make him [i.e. God] working Miracles every Moment, and to have perpetual Recourse to his Power, we shall take it for granted, that when he created the Matter of this World, he impressed a certain Quantity of Motion upon the Parts of it, and that afterwards, by the common Course of his Providence, he hindered Things from returning into their original *Nothing*, and preserved always the same Quantity of Motion; so that what remains for us to do, is only to enquire into other Circumstances of Motion, and to examine Second or Natural Causes.⁴²

Here, just as in Descartes, we do have God's concurrence; but we definitely do not have occasionalism, which Rohault, like Leibniz and many other critics of the theory, wrote off as a perpetual miracle. But then, that was all beside the point anyway. The important thing, as far as Rohault was concerned, was to discover the precise mechanical laws that encapsulated the ways in which motion would get transferred from one body to another at a *physical* level. There was simply no need to worry about the *metaphysics* that might lie behind that transference.

So, all in all, the Cartesians were unmoved by the problem that More had identified, concerning the communication of motion. They agreed with his thesis, but they disagreed that there was anything problematic about it. Some of them might have been led by such considerations towards occasionalism; but others were content just to get on and do their physics. What none of them did was draw the vitalist conclusion that More (or Cavendish, or Leibniz) settled on. So, ultimately, it does not even matter whether we decide to ascribe (body-body) occasionalism to Descartes himself, or simply leave the issue of the underlying metaphysics of the communication of motion in his own system unresolved. For the contempt that Descartes felt towards More's vitalism is palpable. With regard to More's second suggestion, that body, by dint of its status as the furthest shadow of a living God, needed to possess a low-level form of life of its own—for our purposes, the more important claim—Descartes' response was even more dismissive than his first one had been:

You add that body seems to you to be 'alive with a stupefied and sottish life'. This, I take it, is just a fine phrase; but I must tell you once for all, with the candour which you permit me, that nothing takes us further from the discovery of truth so much as setting up as true something of which we are convinced by no positive reason, but only by our own will. That is what happens when we have invented or imagined something and afterwards take pleasure in our fictions, as you do in your corporeal angels, your 'shadow of the divine essence', and the rest. No one should entertain any such thoughts, because to do so is to bar the road to truth against oneself.⁴³

⁴¹Rohault and Clarke 1729, vol. 1, p. 16 (pt. 1, ch. 4, §6).

⁴²Rohault and Clarke 1729, vol. 1, pp. 45–46 (pt. 1, ch. 10, §§12–13), here at p. 46 (§13).

⁴³*Epistolae quatuor*, p. 109/CSMK 382/AT 5:405 (Descartes to More, August 1649). Translation very slightly modified from the CSMK version.

Now, Descartes never actually got round to finishing this third reply to More. He died in 1650, and More did not get to see the fragment until 1655. But, once he had finally done so, although he did now take care to make it clear that his metaphors and similitudes were not to be taken *too* literally, his fundamental position does not seem to have changed much in the intervening six years. In his response to Descartes' posthumous fragment, which he sent to Claude Clerselier (the editor of the published edition of Descartes' correspondence), More still remained inclined to repeat and to defend just the same claims that he had made in his 1649 letter.⁴⁴

Nearly all of the commentators on More have been entirely content to present him as if he was a strict dualist throughout his entire career: but John Henry is an exception to this, and he has quite rightly taken notice of these important remarks about the stupefied life of body. However, in my opinion, Henry is too ready to take More's admission to Clerselier, that those remarks about living bodies had been merely metaphorical, at face value, and consequently to regard such remarks as having been 'loose talk' on More's part. Perhaps More was, by 1655, beginning to have some doubts about his earlier gradual monism, even if he was not yet willing to abandon it altogether. Nevertheless, when the actual 1648–1649 correspondence with Descartes is read not in the context of the associated 1655 letter to Clerselier (and still less in the context of More's later works), but rather in the context of the 1647 edition of the *Philosophical Poems*—which was, after all, closer to it in time—it seems that such remarks do need to be taken a great deal more seriously, as an accurate reflection of More's position during the 1640s. Henry observes that, even if the young More might often have been 'lax in his manipulation of these categories', he nevertheless 'usually wrote in terms of a categorical distinction between matter, which is inactive, and immaterial spirit, which is active'.⁴⁵ And that much is actually true. But Henry's opinion is that it was this categorical distinction that was More's official party-line. In a different article, he again tells us: 'More, in spite of his many disagreements with Descartes, was always totally committed to the dualist distinction between body and soul (or spirit).'⁴⁶ The occasions that Henry takes to be the moments of laxity, the ones that do not accurately represent More's considered opinion, are the ones where he appeared to deviate from this line. Here, I must disagree. It is the other way around.

In the *Philosophical Poems*, as we saw in the last section, the occasions when More affirmed the vitality of corporeal matter were precisely those where he was being careful to express himself with full metaphysical rigour. It was the *other* occasions, the ones where he was adopting the more familiar language of dualism (because such considerations as these were simply irrelevant to the main point he

⁴⁴*Epistolae quatuor*, pp. 112–113 (i.e. the second pp. 112–113: see the note on this edition in my bibliography)/AT 5:645–647 ('Responso ad fragmentum Cartesii'). For commentary and partial translation, see Gabbey 1982, pp. 212–214. Also see Hall 1990b, pp. 136–137.

⁴⁵Henry 1986b, p. 356. Gabbey also alludes to these remarks in the correspondence with Descartes, not only in Gabbey 1982 (as just cited in the last note above), but also in Gabbey 1990, pp. 27–28, where he draws upon this work of Henry's.

⁴⁶Henry 1987, p. 36.

happened to be making at the time): *those* were the times when he was allowing the laxity to creep back in. To reiterate, if ‘body’ was going to mean something utterly devoid of life, then More ‘nere ment / To grant that there’s any such thing existent / As a mere body: For all’s life, all spright’.⁴⁷ Alternatively, if one wished to preserve a notion of body that might actually have some application to real things, it could then mean ‘nothing but a fixt spirit’, ‘an infinite number of vitall Atoms’, ‘the last projections of life from the soul of the world’, which ‘are act or form though debil and indifferent’, which ‘are not merely passive, but meet their information half way’, and which are ‘form and life, so that all is life and form what ever is in the world.... But how ever I use the term *Body* ordinarily in the usuall and vulgar acception.’⁴⁸ In 1646–1647, More was content to converse with the vulgar dualists on their own terms: but *his* own position was the gradual monism that I have described. And, I would contend, the situation in 1648–1649 had not changed. For at least the first decade of his career, More was satisfied that so-called bodies, being projections from an exclusively spiritual and vital God, would themselves need to be vital, at least in some minimal sense. It was only later that he came to accept the real existence of wholly dead corporeal matter, and to contrast it with spirit categorically and not only gradually.

But that 1655 letter to Clerselier does appear to have been the last place where More was prepared to express himself in such terms. Even there, he was only doing so because he had been prompted to revisit a discussion that was already six years old by this time; and his refusal to commit to the literal truth of what he now acknowledged to be merely a metaphor is telling. Just before this, in 1653, there is one other passage where we can find More proposing much the same idea: but, there too, his confidence in it seems equally diminished in comparison with his writings of the previous decade. In *An Antidote Against Atheism*, More once more pointed out that corporeal matter itself might be considered ‘in some sort vital’, on the grounds that ‘the Nature of God being the most perfect fulness of Life that is possibly conceivable, it is very congruous that this utmost and remotest Shadow of himself be some way, though but obscurely, vital.’⁴⁹ More was still prepared to grant to corporeal matter a form of life all of its own, and consequently—given how More understood the notion of a ‘spirit’—a form of spirituality, albeit one inferior to the spirits that animated humans, animals and even plants. And the reason *why* matter could be ascribed this minimal form of life was still the same as it had been in the poems. It was because it came from a God who, in his perfection, had nothing to offer his creatures besides life.

However, in the continuation of this same passage, More then proceeded to undercut this suggestion, by observing that, as a matter of fact, minerals, metals and meteors ‘have no need of any particular principle of life, or *Spermatical form*

⁴⁷*The Complete Poems*, p. 114b (*Antipsychopannychia*, cant. 3, st. 24).

⁴⁸*The Complete Poems*, p. 160a (The Interpretation General: ‘Body’).

⁴⁹*An Antidote Against Atheism*, p. 53 (bk. 2, ch. 5, §3).

distinct from the Rest or Motion of the Particles of the Matter'.⁵⁰ But mere rest or motion—as opposed to spontaneous *self*-motion—were really nothing like life as More had been construing it. And the tentative tone of these remarks should also be noted. Although it is 'very congruous' that matter should be in some way vital, it may not be so. In any case, these brief passages from the mid-1650s really are the last in which More was prepared even so much as to hint at a theory of self-moving bodies. As time went by, he became more and more resolutely opposed to all sentiments of this kind. Where Henry is absolutely correct is in saying that, from 1656 onwards, More 'henceforth was always insistent on the categorical dichotomy of matter and spirit'.⁵¹

When we get to *Enchiridion metaphysicum*, we find 'body' being defined unequivocally as follows: 'a material substance devoid in itself of all perception and life, and indeed all motion, or thus, that body is a material substance coalescing into one thing by an alien life, and participating in life and motion from it... since we have so solidly proved above that matter is endowed with no perception, no life, and no motion from its own nature or from itself.'⁵² When More had contemplated such a definition of body in his youth, he had drawn the consequence that no such thing as body in this sense could really exist at all. If 'body' was instead taken in its more usual sense, to refer to the familiar objects of the sensible world around us, then of course such things existed: but bodies in *that* sense were not wholly devoid of intrinsic life. In his later writings, by contrast, More was satisfied that things really existed which met both definitions together. Those familiar sensible, bulky objects were indeed quite dead.

But the More of the 1670s went further than merely to declare his own dualistic position in the abstract: he also tackled the alternatives head-on. He carefully sought to refute a number of versions of the theory of living matter, a theory to which Ralph Cudworth (borrowing from the equivalent Greek) gave the name 'hylozoism'.⁵³ Among several things that More found worrying about positions of this kind, a

⁵⁰*An Antidote Against Atheism* (1655 edition), p. 91 (bk. 2, ch. 5, [§3]). I am here reverting to the original text, because this sentence was subtly modified in the 1662 version: cf. p. 53 in the 1712 edition.

⁵¹Henry 1986b, p. 356.

⁵²*Enchiridion metaphysicum*, vol. 1, pp. 117–118 (ch. 28, §2).

⁵³In his Latin writings, More introduced a term of his own for this kind of theory: 'biousianismus'. (This was in reference to Francis Glisson's position, and More was drawing on Glisson's own use of related terms in both Latinised Greek and Greek itself. See Glisson 1672, pp. 191–193: ch. 13, §§6–8). But More made it clear that he intended his term merely as an alternative name for exactly the same theory as the one that Cudworth had in mind, referring indifferently to 'Biousianismus sive Hylozoicismus' (and attributing the latter term to 'the erudite author of *The True Intellectual System of the Universe*'). *Opera omnia*, vol. 2.1, p. 608 (*Ad V.C. epistola altera*, scholia). And, for my part, I am going to opt for Cudworth's term rather than More's. Even if neither of their terms ever gained any great currency, at least a few other authors did pick up on Cudworth's: 'hylozoism' and 'hylozoic' are at least recognised by the Oxford English Dictionary, as More's terminology is not. As far as I know, nobody ever used the terms 'biousianism' or 'biousian' in English (nor, for that matter, 'biousianism' or 'biousian'), *not even More himself* in his own English writings.

particularly important one was that they now struck him as opening a dangerous door to atheism. If corporeal matter, acting from its own vital resources, could do everything by itself—and especially if such matter was also regarded as self-existent—then there would be no need to postulate a providential deity. Cudworth shared this attitude with his colleague. He considered hylozoism to be almost as grave a threat to true religion as mechanical materialism, and he examined it at length in the third chapter of *The True Intellectual System of the Universe*. And, as a matter of fact, More and Cudworth were somewhat prescient here. It was only shortly afterwards that these very considerations would indeed turn out to be central to the metaphysical system of arguably the world's first genuinely atheistic philosopher, Jean Meslier (1664–1729). In Meslier's 'Seventh Proof', by far the longest of the eight sections of his enormous and deliberately posthumous *Memoir of Thoughts and Sentiments* (also known as his *Testament*), he argued in precisely this way: that corporeal matter has both its being and its motion from itself, and consequently neither needs nor has either a creator or a providential governor.

Cudworth's own critique of hylozoism was principally focused on a more ancient version, which he attributed to Strato of Lampsacus.⁵⁴ But More was much more concerned with the numerous versions that were simultaneously being developed in their own time. As a case-study, we will examine a particularly important one of these—important because of its proximity to More himself—in the next couple of sections below. But it is worth observing that he did take notice of other formulations too: for instance, that of Francis Glisson (c. 1597–1677). Glisson was one of the leading anatomists of the seventeenth century, Regius Professor of Physic in More and Cudworth's own Cambridge, and a prominent figure in the Royal Society. And it was indeed Glisson's medical research that led him to develop his hylozoic views, which were most fully presented in his *Tractatus de natura substantiae energetica, seu de vita naturae* (*A Treatise of the Energetic Nature of Substance, or of the Life of Nature*) of 1672.⁵⁵ As far as Glisson was concerned, the only way to explain the internal operations of an organic body was by supposing that the matter as such was endowed with life. For him, corporeal substance possessed an intrinsic perception, appetite and self-motion. The only thing that set the higher creatures, such as plants or animals, apart from so-called inanimate objects was their greater level of organisation, which allowed the intrinsic life of their bodies to 'duplicate' or 'triplicate' itself, and thereby manifest itself in the functions characteristic to those classes of beings. Man alone was excluded from this scheme, as standing—as plants and animals did not—in need of a separate, substantial soul, preternaturally implanted by God. And yet even that soul was treated by Glisson as something *over and above* the intrinsic life of the human body, rather than as a

⁵⁴That said, however, some of the terms of Cudworth's discussion do seem to have been drawn from Francis Glisson's contemporary formulation. See Henry 1987, pp. 27–28; and also Garber, Henry, Joy and Gabbey, pp. 590–591.

⁵⁵See Henry 1987. Also discussing the same material, but less extensively, see Hall 1990b, pp. 198–201; Crocker 2003, pp. 167–170.

substitute for it: the body would still take care of many of its purely physiological functions entirely by itself.

More criticised Glisson's position in a scholium appended to *Ad V.C. epistola altera*, his critique of Spinoza's *Tractatus theologico-politicus*. He saw Glisson as yet another of those figures whose opinions, regardless of their avowed intentions, were tending towards atheism. Particularly when Glisson's theory of self-moving matter was joined to the theory of self-existing matter that More felt that he had found in Spinoza's own work, God would drop out of the story altogether. However, now that he had concluded that matter entirely lacked any life of its own, More felt that considerations along the lines of Glisson's, far from undermining the need for the postulation of God, could actually serve to underpin it. For where he did agree with Glisson was on the point that natural phenomena could not be explained without making some appeal or other to genuinely vital principles. Therefore, if it turned out that the matter could not do the work by itself, then some higher, more eminently spiritual principle was going to need to take care of it after all.

4 Anne Conway and Francis Mercury van Helmont

Even as More himself was shifting away from his earlier belief in living matter, there was another pair who were shifting towards it, and a pair who deserve rather more attention in a work on More than Glisson does: namely, Anne Conway and Francis Mercury van Helmont. Although More would presumably have known Glisson at Cambridge (and perhaps through the Royal Society too), there is no evidence that they were especially close. But More was very close indeed to this other pair, especially to Conway. We will return to More shortly, but first we should take a brief excursus to have a proper look at Conway and van Helmont, given their central importance, personal as well as philosophical, in More's own life.

Anne, Viscountess Conway, *née* Finch (1631–1679), was possibly the closest friend that More ever had. As Marjorie Nicolson observed, 'Henry More was never more truly a Platonist—in the finest sense of that abused term—than in his love for her.'⁵⁶ Their paths first crossed around 1650 through her half-brother, John Finch, who was studying under More at Christ's College. Although More and Finch remained friends, even after their formal relationship had concluded, it was in his little sister that he found his greatest inspiration. Being female, Anne had been denied the opportunity to receive anything beyond the most basic of formal education. But More recognised her remarkable intellect, and he took her personally under his pedagogical wing, training her in both Neoplatonism and Cartesianism. Before very long, his 'Heroine pupil'⁵⁷ had become the mistress of such domains, not only catching up with More but, in a few areas, even beginning to overtake him.

⁵⁶ *Conway Letters*, p. 45.

⁵⁷ Ward 2000, p. 117.

Their correspondence casts a clear spotlight on a reciprocal meeting of two intellectual equals, collaborating to probe the secrets of the universe together.⁵⁸

Twenty years into the More-Conway relationship, a third figure was thrown into the mix. In 1670, after travels and adventures around Europe, Francis Mercury van Helmont (1614–1698) arrived in England.⁵⁹ Renowned for his medical expertise, he was promptly approached by Lord Conway to attend the latter's chronically ill wife, Anne, at their home at Ragley Hall in Warwickshire. On encountering the patient, van Helmont found himself so taken with her that he ended up staying at Ragley for the best part of a decade, only moving on after Anne's numerous ailments finally got the better of her in 1679.

But van Helmont was no mere physician. Francis Mercury was the son of Jean-Baptiste van Helmont, the Paracelsian chemist who not only gave the world the word 'gas', but was also the first to isolate and to distinguish carbon dioxide and several other specific gases. Carrying his father's torch, the younger van Helmont was quite the Renaissance man, with fingers in a great many pies. Most significantly for our purposes, he was an adept in the mysteries of the Jewish Cabbala. A Christianised—and, one might suggest, a watered-down—version of the Cabbala had been pretty well known and popular among Christian intellectuals since the Renaissance. More himself had long been extremely keen on such a version, as his *Conjectura Cabbalistica* of 1653 makes abundantly clear, a work which—it has been alleged—may have been shaped by at least some uncredited input from Lady Conway.⁶⁰ But, as Katz has aptly observed, More's *Conjectura Cabbalistica* 'had as little to do with the Jews as did the Cabal of Charles II, or the Jews' Harp for that matter.'⁶¹ As far as the pure, unadulterated Jewish Cabbala was concerned, as encapsulated in the Zohar and in the texts and commentaries of Isaac Luria and others, this was far less well known in Christian circles until the publication, beginning in 1677, of Christian Knorr von Rosenroth's *Kabbala denudata*. More himself seems to have been ignorant of it until the 1670s. But van Helmont was close to Knorr and,

⁵⁸The extant correspondence of More and Conway, together with extensive details of their personal relationship, is to be found in the *Conway Letters*. (This collection also covers their mutual relationship with van Helmont). On the philosophy of Conway (and, here and there, of van Helmont too), see, first and foremost, Hutton 2004. Also: Merchant 1979a; Merchant 1980, pp. 253–268; Popkin 1990; Coudert 1992; Coudert 1999, ch. 9; Hutton 1995; Hutton 1996a; Hutton 1996b; Duran 1996; McRobert 2000; and the introductions to Conway 1982 and 1996.

⁵⁹On van Helmont's philosophy (and with some additional remarks here and there on Conway's), see Coudert 1995 and (especially) Coudert 1999, plus the sources listed in the last note, together with Sherrer 1958; Coudert 1975 and 1976; Merchant 1979b; Brown 1997.

⁶⁰James Crossley claimed, in 1855, that there was 'reason to believe that a portion of it was contributed by her ladyship'. He did not, unfortunately, bother to tell us what this reason might have been. (Worthington 1847–1886, vol. 2.1, p. 94 n. 1).

⁶¹Katz 1990, pp. 179–180. On *Conjectura Cabbalistica*, and Christian cabbala more generally (particularly in relation to John Milton), see Nicolson 1927. But Nicolson's article is not to be confused with Werblowsky 1955, with which it shares a title ('Milton and the *Conjectura Cabbalistica*'). Werblowsky's article, although it does mention More, is more concerned with Milton in relation to the Lurianic cabbala; but it does provide a useful analysis of the latter.

through him, both More and Conway had advance access to Knorr's resources as well as to van Helmont's own. Indeed, when *Kabbala denudata* did finally reach the light of print, the Jewish texts that it presented were supplemented by commentaries not only from van Helmont but also from More himself.

More was not entirely opposed to the Jewish notions to which van Helmont introduced him. As he told Conway: 'I do not doubt but there is pretious gold in this Cabbalisticall rubbish, which the discerning eye will easily discover.'⁶² More's various published essays on the Jewish Cabbala (collected in vol. 2.1 of his *Opera omnia*) show that he did indeed feel it had much to commend it, in amongst the dross. He felt, for instance, that there was a strong general parallel between the Jewish and the Pythagorean numerologies. (Remember that he thought Pythagoras had probably been Jewish in any case, and had certainly adopted the ancient Mosaic cabbala which also stood at the foundation of the subsequent developments within Judaism itself). More particularly, he felt that the first three of the Jews' ten 'sephiroth' lined up fairly well with the three hypostases of the Neoplatonic Triad or the three persons of the Christian Trinity, while the remaining seven could be shoehorned only somewhat awkwardly into the various other levels and forms of being that More himself countenanced: infinite space, the Spirit of Nature, etc.⁶³ Moreover, he felt that the inner mysteries of the universe were further unveiled in the vision of Ezekiel (from Ezekiel 1:1–18) as expounded in the 'Cabbala Mercavae'.⁶⁴ Nevertheless, and as we will shortly see, More was certainly never won over fully, and he found many elements of the Cabbala—and, above all, many of the specific additions and modifications that Luria in particular had made to the basic system—to be profoundly obnoxious.⁶⁵

In Conway, however, van Helmont found a far more enthusiastic student and collaborator. (And I here use the term 'enthusiastic' deliberately, for it is applicable not only in its ordinary modern sense, but also in its more specific seventeenth-century religious sense: both Conway and van Helmont joined the Quakers).⁶⁶ During the 1670s, van Helmont gradually supplanted More as the chief philosophical influence on Conway's thought. However, she was no mere pupil to van Helmont, any more than she had been to More after the earliest phase of their relationship. She had a comparably stimulating influence on the development of van Helmont's

⁶² *Conway Letters*, p. 351 (More to Conway, 5 February 1671/2).

⁶³ See especially More's *Trium tabularum cabbalisticarum decem sephirothas sive numerationes exhibentium descriptio* and *Quaestiones et considerationes paucae brevésque in Tractatum primum libri Druschim* (*Opera omnia*, vol. 2.1, pp. 421–443, 445–472). Also see Guinsberg 1980, p. 50.

⁶⁴ See Adamson 1971. But note that Adamson's discussion of More (pp. 110–112) limits itself to certain remarks from the *Divine Dialogues* (pp. 432–441: dial. 5, §10) and *Immortality of the Soul* (p. 206: bk. 3, ch. 10, §3, note). It does not address More's cabbalistical *Visionis Ezechielis sive Mercavae expositio* and *Catechismus cabbalisticus sive Mercavaeus* (*Opera omnia*, vol. 2.1, pp. 473–508, 509–519).

⁶⁵ Besides Werblowsky 1955, Coudert 1999, and the other works on van Helmont and Conway as noted above, also see Copenhaver 1980, pp. 507–529, for an examination of the Lurianic Cabbala in relation to More in particular.

⁶⁶ See Coudert 1999, chs. 9, 11; Hutton 2004, ch. 9.

own thought. Indeed, one observer has gone so far as to remark that she ‘understood his system as well *or better than* he did himself’!⁶⁷

We possess but one clear statement of Conway’s own philosophical position, her *Principles of the Most Ancient and Modern Philosophy*, probably written during the first half of the 1670s, and published posthumously in 1690. For van Helmont, by contrast, we have a whole host of works upon which to draw. However, many of these were either written by disciples under his influence and published under their own names; or else published under his name but nevertheless still ghost-written by other people (including, in one case, by none other than Leibniz).⁶⁸ Even when van Helmont did bother to put his own pen to paper at all, he still tended to do so only in close collaboration with others (including, it would seem, Conway). For this reason, the relevant texts to be considered must be the entire corpus that has become known as the ‘Helmontiana’.⁶⁹ However, even though the Helmontiana might not always have come from van Helmont’s own hand, they do at least present themselves as so coherent a body of work that it seems fair to identify at least the more general philosophical principles as ones to which he did indeed give his own personal endorsement. But the Helmontiana are not only broadly consistent with one another: they are also broadly consistent with the system expounded in Conway’s own *Principles*. Aside from the odd inevitable disagreement here and there in the details, or certain differences of emphasis, van Helmont and Conway together developed a common position.

Central to this position—or at least most relevant to the present study—was a gradually monistic ontology, countenancing no categorical difference between spirit and body, but only a difference in their respective degrees of vitality. As Conway put it, ‘spirit and body do not differ in essence but in degree’.⁷⁰ Or, in van Helmont’s words (for let us just go ahead and treat them as his):

Spirit and Body are not contrary Essences, as many do vainly and falsely affirm; for every created Spirit is corporeal, having in it the true essence and nature of a Body, *viz.* it is an extended Being, bounded, circumscrib’d with place, moveable, &c.... For as every Spirit or Soul in the whole creatural System is a Body, having in it the true Essence and Attributes of a Body; so every Body is in some degree or measure Animal and Spiritual, *i.e.* hath Life, Sense and Knowledge; or at leastwise capable of those attributes.... Seeing therefore every Spiritual thing is corporeal, and every corporeal thing is Spiritual, in some degree or measure; therefore all Creatures, from the highest to the lowest, have some relation and natural Affinity one to another; the highest to the lowest, and the lowest to the highest; yea, certainly, as to their original essence and condition, they are of one and the self same nature, nor is there any, even the basest creature, but may be changed, either into the noblest, or at least into some part of the noblest creature.⁷¹

⁶⁷Crossley in Worthington 1847–1886, vol. 2.1, p. 100, n. 1. Emphasis added.

⁶⁸See Coudert 1995 for a thorough analysis of the relations between van Helmont and Leibniz, including the latter’s role in the composition of the former’s *Quaedam praemeditate & consideratae cogitationes super quatuor priora capita libri Moysis Genesis nominati* (1697). Also Coudert 1999, ch. 13; and Brown 1997, pp. 111–116.

⁶⁹See Brown 1997, pp. 104–108.

⁷⁰Conway 1996, p. 56 (ch. 8, §1). See also pp. 39–40 (ch. 6, §11).

⁷¹Helmont 1694, pp. 11–13 (§§28, 30, 32).

One part—though, I would suggest, only in fact a very small part—of the argument that Conway (in particular) presented for this vitalistic monism is worthy of mention because it does seem to owe something to More. At the end of her book, Conway observed that ‘it is a matter of great debate how motion can be transmitted from one body to another since it is certainly neither a substance nor a body. If it is only a mode of the body, how can this motion pass properly from one body to another since the essence or being of a mode consists in this, namely, that it inheres or exists in its own body?’⁷² It is quite true that this was indeed a matter of great debate, and in Conway’s own circle. As we saw in the last section, this is precisely the complaint that More had raised with Descartes in their correspondence. The same complaint was also raised by Margaret Cavendish in her *Philosophical Letters*, a book that Conway may have read. (Cavendish sent a copy to More, who mentioned it to Conway).⁷³ Both More and Cavendish had responded to this observation by adopting a vitalist form of occasional causation whereby, instead of one body’s genuinely *receiving* motion from another, it would merely be induced by it to put *itself* into motion.

However, Conway’s own response to this particular problem was not quite the same. She certainly did not allow that there could be any communication of motion between bodies without the intervention of vital powers of some kind or other. But, at least from *these* considerations, she also does not appear to have drawn the same conclusions that More or Cavendish drew. As we also saw in the last section, there were some Cartesians (like Cordemoy) who did in fact appeal to precisely these considerations in the course of their own metaphysical arguments (while others, like Rohault, who were simply left cold by them). But the difference was they were not arguing towards a vitalist occasional causation like More’s, but were instead arguing towards full-blown occasionalism. And, if anything, Conway’s inclinations here seem to have been tending (at least) in a similar direction:

Therefore the way motion is communicated is through real production or creation, so to speak. Just as God and Christ alone can create the substance of any thing, since no creature can create or give being to any substance, not even as an instrument, likewise a creature

⁷²Conway 1996, p. 69 (ch. 9, §9).

⁷³Hutton notes this, observing that ‘he reported his receipt of the gift to Anne Conway, with the suggestion that it would be more appropriate for her to answer “this great philosopher” than himself (given that Cavendish, in her Preface to the Reader, had indicated that she would prefer to be answered by a woman). Hutton 2004, p. 114. But this is not quite what More actually said to Conway. His letter reads: ‘I wish your Ladiship were rid of your headache and paines, though it were no exchange for those of answering this great Philosopher. She is affrayd some man should quitt his breeches and putt on a petticoat to answer her in that disguise, which your Ladiship need not. She expresses this jealousy in her book, but I beleave she may be secure from any one giving her the trouble of a reply.’ *Conway Letters*, p. 237 (More to Conway, 15 May 1665). That is to say: (i) for Conway to compose a response would just serve to give her yet more headache and pains; but then (ii) More suspected that Cavendish’s concerns about getting a response from a man in female disguise were unfounded anyway, because he did not anticipate that anyone—not excluding Conway herself—would be composing such a response at all. Notwithstanding the compliments that More paid to Cavendish directly (*Conway Letters*, p. 241: More to Cavendish, 9 June 1665), his use of the expression ‘this great Philosopher’ in this private letter to Conway does rather smack of sarcasm.

gives existence to motion or vital action, not from itself, but only in subordination to God as his instrument. In the same way motion in one creature can produce motion in another. And this is all that a creature can do to move itself or its fellow creature, namely as an instrument of God.⁷⁴

In the light of this, I do not place any great weight on this particular discussion in Conway, at least not insofar as it is being construed as an argument for vitalism. But then the *main* argument that Conway (and van Helmont too) presented for their monistic position was *also* one that More had offered in his writings of the 1640s. They explained, just as he had done, that all things came from a living God, and that God could not produce anything that was utterly unlike him.

As Conway argued:

For since God is infinitely good and communicates his goodness to all his creatures in infinite ways, so that there is no creature which does not receive something of his goodness, and this as fully as possible, and since the goodness of God is a living goodness, which possesses life, knowledge, love, and power, which he communicates to his creatures, how can any dead thing proceed from him or be created by him, such as mere body or matter, according to the hypothesis of those who affirm that matter cannot be changed into any degree of life or perception? It has been truly said that God does not make death. It is equally true that he did not make any dead thing, for how can a dead thing come from him who is infinite life and love?⁷⁵

Or, again, van Helmont likewise insisted that God could not directly produce matter on the grounds that it was utterly unlike him. He argued that, just as an efficient cause could not produce an effect that was exactly the same as itself—something would always get lost in the process—neither could it produce something wholly different.⁷⁶ ‘For from God, who is Life himself, and the fountain of it, nothing that hath not Life, or is uncapable thereof, can proceed; for God created all his Creatures in his most excelling Goodness, Wisdom and Power, that in him they might at length be blessed.’⁷⁷ Besides the metaphysical awkwardness of getting a wholly dead effect out of a wholly living cause, it would in any case be beneath God’s dignity for him to trouble himself in the production of anything so vile. Everything in the created universe either had to be actually alive in some sense, or, at the very least, had to be capable of life, sense and knowledge.

But then surely this meant that matter had no place in the created world at all? Van Helmont disagreed: it just meant that God did not produce matter immediately. He set out his position in six theses:

1. That the Creator first brings into being a spiritual Nature.
2. And that either arbitrarily [when he pleased;] or continually, as he continually understands, generates, &c.

⁷⁴Conway 1996, p. 70 (ch. 9, §9).

⁷⁵Conway 1996, pp. 44–45 (ch. 7, §2).

⁷⁶Helmont 1682, pp. 10–11.

⁷⁷Helmont 1694, p. 13 (§34).

3. That some of these Spirits, for some certain cause or reason, are slipt down from the state of knowing, of Penetrating, or of moving into a state of impenetration.
4. That these *Monades* or single *Beings* being now become spiritless or dull, did cling or come together after various manners.
5. That this *coalition* or clinging together, so long as it remains such, is called *matter*.
6. That, out of this *matter*, all things material do consist, which yet shall in time return again to a more loosned and free state.⁷⁸

For van Helmont, then, matter did indeed exist; but it was not an utterly dead thing, as had traditionally been believed. Rather, it was the result of the coalition of various ‘monads’ which, notwithstanding their having originally been created as spirits in the fullest sense of the term, had since lost their vitality and become ‘dull’ or, as van Helmont elsewhere expressed it, ‘blind’ and ‘dark’.⁷⁹ And, ultimately, it was their own fault that they had thus fallen away from the perfection in which their perfect Creator had made them. Part and parcel of their having originally been perfect spirits was that they had been endowed with free will. If they proceeded to go and abuse that free will to evil ends, then they really only had themselves to blame for the degeneration they brought about in themselves through such wickedness.⁸⁰

At the same time, however, it was not possible that they should fall *infinitely* far from their original perfection: ‘But because there is no being which is in every way contrary to God (surely nothing exists which is infinitely and immutably bad, as God is infinitely and immutably good, and there is nothing which is infinitely dark as God is infinitely light, nor is anything infinitely a body having no spirit, as God is infinitely spirit having no body), it is therefore clear that no creature can become more and more a body to infinity.’⁸¹ These dull monads could never lose all trace of their original spirituality, no matter how attenuated it might become. And, moreover, there was always the hope of a full restoration to their original state of perfection. A loving God would not close the door to salvation for *any* of his creatures, which was precisely what those who believed that created matter was incapable of spiritual powers were obliged to assert. What had once been lost could yet be retrieved, and van Helmont and Conway believed that a gradual process of restoration could be undertaken through suffering and successive deaths and transmigrations (‘gilgul’, as this was known in the Cabbala), with the hope of eventually achieving a full reconciliation and reunion (‘tikkun’) with God. As Conway (whose poor health had unfortunately—or fortunately, if one follows her own line of thinking—given her plenty of personal experience of pain and suffering) put it: ‘all pain and torment

⁷⁸Helmont 1682, p. 4. Helmont’s brackets.

⁷⁹Helmont 1682, p. 8; see also p. 9.

⁸⁰See Helmont 1694, pp. 14–15; and ‘J.B.’ 1685, the (separately paginated) Second Part, pp. 106–108; as well as Helmont 1684, *passim*.

⁸¹Conway 1996, p. 42 (ch. 7, §1).

stimulates the life or spirit existing in everything which suffers. As we see from constant experience and as reason teaches us, this must necessarily happen because through pain and suffering whatever grossness or crassness is contracted by the spirit or body is diminished; and so the spirit imprisoned in such grossness or crassness is set free and becomes more spiritual and, consequently, more active and effective through pain.⁸²

This, they felt, was certainly true of human souls, these being spirits that had degenerated somewhat from their original perfection, but had not fallen quite as far as the material state. As one of the authors of the *Helmontiana* put it, a man 'being created in this World, must therein work out his Salvation and Happiness, and that by means of frequent and reiterated dying'.⁸³ But this was not only true of a man's soul: it was also true of the dull monads that collectively constituted his body. Van Helmont and Conway maintained that a human being was a composite entity, an aggregate of many distinct creatures, every one of which had once been a perfect spirit, and was capable of becoming one again. Indeed, each of us was constituted by *infinitely* many such beings. Every creature, wrote Conway, 'no matter how small, which we can see with our eyes or conceive of in our minds, has in itself such an infinity of parts or rather of entire creatures that they cannot be counted'.⁸⁴ Someone like, for instance, Descartes would have said that a human being was a compound of an indefinitely divisible body and just one indivisible mind, and that these were not only really distinct from one another but belonged to wholly different categories of substance. Conway and van Helmont disagreed. The infinite number of parts that made up a human being differed only in their degrees of spiritual perfection or imperfection. Some of them were unthinking physical monads; at least one of them possessed thought and reason; and, as a matter of fact, *more than one* did so.

Just as a body, whether of a man or brute, is nothing but a countless multitude of bodies collected into one and arranged in a certain order, so the spirit of man or brute is also a countless multitude of spirits united in this body, and they have their order and government, such that one is the principal ruler, another has second place, and a third commands others below itself, and so on for the whole, just as in an army. For this reason, creatures are called armies and God the leader of these armies. Just as the devil, who assaulted the man, was called Legion because there were many of them. Thus every human being, indeed, every creature whatsoever, contains many spirits and bodies. (The many spirits which exist in men are called by the Jews Nizzuzuth, or sparks.) Truly, every body is a spirit and nothing else, and it differs from a spirit only insofar as it is darker. Therefore the crasser it becomes, the more it is removed from the condition of spirit. Consequently, the distinction between spirit and body is only modal and incremental, not essential and substantial.⁸⁵

Or again, one of the authors of the *Helmontiana* observed that 'some will ask why since the Body hath its own life, man doth notwithstanding stand in need of a

⁸² Conway 1996, p. 43 (ch. 7, §1). On the benefits of pain, see also van Helmont in the British Library manuscript, Sloane 530, fols. 47v–49r, as noted in the *Conway Letters*, pp. 314–315; and Sherrer 1958.

⁸³ 'J.B.' 1685, Second Part, p. 157. See also p. 9 and *passim*.

⁸⁴ Conway 1996, p. 17 (ch. 3, §5).

⁸⁵ Conway 1996, pp. 39–40 (ch. 6, §11). The 'Legion' reference is to Mark 5:9/Luke 8:30.

Soul or Life'. The answer was that 'it is absolutely necessary that man should have a Soul or Life, that may superintend, Rule and Govern all the Lives and Spirits that are in his Body.'⁸⁶

A man, therefore, was an aggregate of many distinct substances, some of them 'darker' and 'crasser' than others, but all of them essentially spiritual nevertheless. Of these various component spirits, the most perfect one, the one that happened to be the closest to its original state and consequently the most vital among them, would have the power to dominate the rest. Indeed, it would presumably assist them in their own restoration. If this ruling spirit was to steer them down the path of righteousness, then perhaps its good influence might rub off on them, and they could look forward to a superior state for themselves in their next life, after the current compound underwent its inevitable disintegration and they transmigrated into a new one.

Van Helmont (and his loyal minions) made extensive use of this notion of transmigration to explain away a number of thorny problems in Biblical exegesis.⁸⁷ For instance, the tales of wholesale slaughter in the Old Testament, either conducted directly by God himself or at least on his express instructions, seemed hard to reconcile with his infinite goodness. Van Helmont's solution was to propose that these actions facilitated a transplantation of souls from worse compounds into better ones, and could thereby actually benefit the supposed victims, by helping them along their path to perfection. When God sent down the flood, for instance, he 'ingrafted' the souls of the people who drowned into the sons of Noah. Likewise, the Egyptians who were drowned in the Red Sea entered into the Israelite women, 'and so in process of time were born of them, in order to their Renovation'.⁸⁸ Or, again, if the principle that the sins of the father should be visited on the son should seem a trifle unfair on that innocent child, the thing to remember is that a son would inherit a considerable part of not only his corporeal but also his spiritual make-up from his father. He was, therefore, culpable for whatever that father might have done, since it was, at least partially, *he himself* who had been doing it, when these parts of himself had formerly been participating in a different aggregate, the one that had constituted his father at that time.

Now, as Allison Coudert has convincingly shown, van Helmont was heavily influenced in these ideas by Jewish mysticism. The notion of a fall and rise of spiritual creatures, through successive transmigrations, was a central part of the Lurianic Cabbala. So too was the notion that such a spirit could fall so far as to take on qualities more usually associated with gross bodies, and that what was ordinarily thought of as matter was in fact just spirit whose vitality, though greatly attenuated, would never quite be lost altogether. I have no quarrel with Coudert's thesis. To deny the impact of the Cabbala on the philosophical thought of van Helmont, and, through him, on Conway too, would certainly be a grave distortion. What I do propose, however, is that there is room to balance this impact against another influence, one that has not hitherto been properly recognised. It is time for us to return to Henry More.

⁸⁶Buchius 1693, p. 167 (ch. 5).

⁸⁷'J.B.' 1685, Second Part, pp. 106–134; Helmont 1684, *passim*.

⁸⁸'J.B.' 1685, Second Part, p. 129.

5 The Eagle-Boy-Bee

As we saw, More had once embraced a theory that was, in certain key respects, very close to the shared position of van Helmont and Conway. Like them, More had been committed a doctrine of gradual monism whereby, since all things derived whatever reality they had from a God who had—or who *was*—the most perfect life, they themselves needed to possess some degree of life of their own, even though this might be tremendously attenuated in the case of those atoms which, by thickening and congealing together, would constitute gross bodies. Indeed, there was not merely a coincidence of thought: much of the phraseology coincides too, especially between More and Conway.⁸⁹ When More was discussing the generic identity of body and spirit in 1646–1647, he declared that ‘body’s but this spirit, fixt, grosse by conspissation’, and that it was ‘nothing but a fixt spirit, the conspissation and coagulation of the cuspidall particles of the Cone’.⁹⁰ Likewise, in Conway’s book, we read that ‘body is nothing but a fixed and condensed spirit’.⁹¹ Or, again, More elsewhere claimed that ‘matter... / If rightly sifted’s but a phantasie’, and ‘matter pure is a pure nullitie: / What nought can act is nothing, I am sure’.⁹² Likewise, Conway would declare that ‘dead matter is completely non-being, a vain fiction and Chimera, and an impossible thing.’⁹³

It should be noted that, even though many elements of the Conway-Helmont system laid out in the last section were particularly associated with the Cabbala, they were certainly not exclusive to it. Christian philosophers such as Tommaso Campanella (1568–1639), for instance, had held that even the basest corporeal creatures did nevertheless enjoy some low-level form of life, and even a form of perception appropriate to their circumstances; and held that reality, instead of being divided between the animate and the inanimate, was actually just a single, smooth continuum from God all the way down to the very dullest of his creatures.⁹⁴ Or, again, another area where More was in agreement with Conway and van Helmont was on the notion of an initial fall and subsequent rise of souls, through successive transmigrations. But this too was a well-known notion outside the Cabbala, having been a key feature of a certain strand of Platonic and Christian thought, endorsed and explicated by Plotinus and Origen among others. More’s debt to Plotinus need not be restated: but Origen had a tremendous influence on

⁸⁹ Admittedly, we do not actually have any record of Conway’s exact wording, since all that remains of her book is a 1690 Latin translation of her own original English, now retranslated back into English. But it does seem reasonable to suppose that the sense, at least, is accurate—and the sense of some of her remarks really is very close indeed to that of some of More’s.

⁹⁰ *The Complete Poems*, pp. 92b, 160a (*Democritus Platonissans*, st. 13; The Interpretation General: ‘Body’).

⁹¹ Conway 1996, p. 61 (ch. 8, §4).

⁹² *The Complete Poems*, p. 92a, b (*Democritus Platonissans*, sts. 10, 16).

⁹³ Conway 1996, p. 46 (ch. 7, §2).

⁹⁴ See Bonansea 1969, pp. 156–161.

him too. Indeed, despite Origen's having been rather unorthodox in certain respects—compared, at any rate, to some of the other Fathers of the Church—he probably had a greater influence on More than any other individual Patristic author. In particular, More was a keen devotee of Origen's notion that spirits were born in a state of perfection, from which they subsequently fell, degrading themselves through the sinful abuse of their free will, but to which they might eventually hope to return. Throughout his entire career, from the 1647 *Philosophicall Poems* right up until his edition of *Two Choice and Useful Treatises* in 1682, More developed and defended the doctrine of the pre-existence of the soul. As a spirit fell from its original perfection, More believed, it would find itself becoming united to a succession of denser and denser bodies, from the most subtle aethereal vehicles that clothed the highest spirits, through the aerial vehicles of slightly more corrupt ones, down to the solid, terrestrial bodies to which human souls (as such) were united. By working out its salvation through successive incarnations, the spirit would then be capable of gradually making its way back up the ladder again.

We will be looking at More's handling of this notion in greater depth in Chap. 10. For now, I merely note it as a further point of contact between More's position and that of Conway and van Helmont. A number of other such points of contact might also be mentioned; so that, in the end, it would seem churlish to deny that More, together with the wider Christian Platonist tradition that he represented, must surely have had some significant influence in shaping the views that Conway, at least, held in this area. After all, it must be remembered that More was Conway's first mentor, and that she had already spent some twenty years engaged in philosophical speculation with him as almost her sole stimulation and guide, before she ever became acquainted with van Helmont and, through him, with the Cabbala. This is not to deny, or even to downplay, the importance of the Cabbala in Conway's thought, but merely to complement it. It is frankly incredible that More's thought would not have influenced hers profoundly during that formative period of her philosophical development; and their numerous agreements are surely evidence that it actually did so.

At least for a while, even after the arrival of van Helmont, they all still continued to bounce ideas off one another at Ragley Hall, in a three-way partnership of mutual intellectual respect and personal friendship, over a can of Norden ale or a glass of Canary wine.⁹⁵ It is true that More's intimacy with both of them did eventually wane, and the role that he had once played in Conway's life largely came to be eclipsed by that of van Helmont alone. But that came later, in the mid-1670s, when

⁹⁵ Although More shows no signs of having been an especially heavy drinker, these do seem to have been his two favourite tipples. He refers to both, and mentions getting 'pretty humoursomely merry' with van Helmont, in a letter to Conway of 14 March 1670/71. (*Conway Letters*, p. 329; also quoted in Hall 1990b, p. 99). In a letter to John Worthington of 19 May 1671, More promises Worthington 'a cup of Norden's Ale, and a lesson of the Lute to entertain you.' (Worthington 1847–1886, vol. 2.2, p. 352). Or, again, most of the five *Divine Dialogues*—wherein it is hard at times not to sense a fictionalised Ragley—close with the 'Arborists' singing to a lute, theorbo or flageolet, as they wet their whistles with a bottle of Canary. (*Divine Dialogues*, pp. 173–179; 283–288; 398–399; 522–525).

Conway and van Helmont joined the Quakers (whom More really could not stomach). One might even begin to wonder whether More could actually have helped to shape van Helmont's own views directly, and not only by having first helped to shape Conway's. For the first few years of van Helmont's presence at Ragley, finding that he already had considerable common philosophical ground with More, the former might well have been happy to accept the latter's input as he worked to consolidate and to expand his own pre-existing opinions.

So perhaps we should actually be identifying More as a third parent for the system I characterised in the last section as the fruits of a two-way collaboration between Conway and van Helmont alone. As it turns out, however, this would be going too far. The parents of the Conway-Helmont theory were precisely as stated, Conway the mother and F.M. van Helmont the father (which would, of course, make J.B. van Helmont the grandfather). And, as Coudert has shown at length, van Helmont certainly introduced some important Jewish influences into the mix, alongside the Paracelsian and Neoplatonist ones. My contention is merely that those branches in the system's paternal lineage should be balanced against a branch on the distaff side that leads directly to Henry More. Even if he cannot really be regarded as a parent of the Conway-Helmont system, he can certainly be regarded as a godparent.

The specific Henry More in question, however, is not the same Henry More who was actually conversing with Conway and van Helmont in the 1670s. Instead, it is the Henry More who was writing the *Philosophical Poems* in the 1640s.⁹⁶ We happen to know for a fact that, despite those poems' already having been some three decades old by the time she came to write her book, Conway was still greatly enamoured of them. In 1669/70, More provided her with a translation (from Greek) of one of the more minor verses in the *Philosophical Poems*, observing that she had expressed to him 'the curiosity to understand it if not gett by heart'.⁹⁷ In 1675, she requested that he should send her a new copy of the whole book, saying that she had given her own copy away to George Keith, but also indicating that she had only been prepared to do so because of her confidence that More would supply her with a replacement.⁹⁸ More duly obliged, and she thanked him for 'what was also very acceptable to me, viz., a fair copy of your Poems (which is a book I highly value)'.⁹⁹ George Keith was a Quaker, and he had newly become a central figure in Conway's own society of friends. Indeed, he actively collaborated with both Conway and van Helmont in the investigations that would form the basis of the latter's *Two Hundred Queries*.¹⁰⁰

⁹⁶Coudert is conscious of the fact that More's attitude did shift in certain respects between the 1640s and the 1670s, and she notes a couple of changes in Coudert 1999, pp. 226–228, 237–239. But she does not go into any real detail; and, in particular, she does not discuss More's early commitment to the crucial notion of living matter.

⁹⁷*Conway Letters*, p. 299 (More to Conway, probably January 1670). The poem in question was *Euporia: The Complete Poems*, p. 182.

⁹⁸*Conway Letters*, p. 408 (Conway to More, 29 November 1675).

⁹⁹*Conway Letters*, p. 420 (Conway to More, 4 February 1675/6). See also pp. 416, 418, 423.

¹⁰⁰See Coudert 1999, chs. 9, 11, passim; Hutton 2004, pp. 203–212.

Of all of More's books—and he had written a great many by 1675—it is significant that this should have been the one that she singled out as being especially worthy of Keith's perusal.

This had been the very first statement of More's philosophical opinions, written when he was still a young man, still figuring things out. Indeed, by 1675, he had long since begun to distance himself from the conclusions he had presented in this juvenile work. Not only did he express displeasure (or perhaps affected modesty) over the style of the poems,¹⁰¹ but he also became dissatisfied with the philosophical content thereof. We already had occasion (pp. 161–162 above) to observe More's advice to the reader of *An Explanation of the Grand Mystery of Godliness* in 1660, 'to interpret, and also rectifie if need be, my First thoughts by my Second, my *Philosophick Poems* and whatever is writ in that Volume, by my later and better concocted Prose.'¹⁰² The following year, judging by a letter from John Worthington to Samuel Hartlib, More's bookseller was being 'urgent with him' about putting together a folio collection of his philosophical writings, and was specifically hoping 'that the poems may not be omitted'.¹⁰³ But, when *A Collection of Several Philosophical Writings* appeared in print a year later, the poems were nowhere to be seen. Although More had a perfectly good excuse for omitting them from his *Opera omnia*, in that the poetic style might not carry over well into Latin,¹⁰⁴ he had no such excuse here. Although do not possess More's own correspondence with his bookseller, it would surely have been his own decision to keep the poems out the book; and it is hard to avoid the conclusion that this was simply down to the fact that he had since changed his mind on just too many points. For, once again, in the *Praefatio generalissima* to his 1679 *Opera omnia*, More further distanced himself from the poems, now explicitly naming some of those issues on which he had changed his mind.¹⁰⁵ However, whatever More himself might have thought of his poems by this point, Conway still 'highly valued' them.

Parallels like those that we already touched upon, between the doctrines of the poems and those that Conway presented in her own book, can easily explain the fondness she still had for this early work of More's. But, to complete the picture, we must turn to More's later writings, in order to show that, whatever ideas she might have adopted out of More, they can *only* have come from that early work. If More has often—I do not say 'always'—been neglected, in attempts to trace the origins of the Conway-Helmont theory, a large part of the explanation must surely lie in the fact that More himself came to oppose *that very theory*: directly, vigorously, and in print.

¹⁰¹More had one of the characters of the *Divine Dialogues* describe his own former self as 'a certain Philosophical Poet, who writes almost as hobblingly as *Lucretius* himself' (*Divine Dialogues*, p. 178: dial. 2, §28; see also p. 284: dial. 3, §36). If anything, the comparison seems rather unfair on *Lucretius*!

¹⁰²*An Explanation of the Grand Mystery of Godliness* (1660 edition), p. vi (To The Reader, §4).

¹⁰³Worthington 1847–1886, vol. 1, pp. 305–306 (Worthington to Hartlib, 8 May 1661).

¹⁰⁴See *Opera omnia*, vol. 2.1, p. i (*Praefatio generalissima*, §1).

¹⁰⁵*Opera omnia*, vol. 2.1, p. viii (*Praefatio generalissima*, §11)

Notwithstanding whatever affinities it might have had with some of the opinions he had held in the 1640s, by the time the 1670s came around—the period when Conway and van Helmont were hammering out their common position—More had come to the opinion that such a position was not merely erroneous, but that it was profoundly dangerous, and to be resisted at all costs.

More prevailed upon Knorr von Rosenroth to include in the first volume of *Kabbala denudata* (1677) a piece entitled *Fundamenta philosophiae sive cabbalae aeto-paedo-melissaeae*.¹⁰⁶ This tract, written around 1675, was an attack not only on the tenets of the Cabbala in general, but specifically on the way in which these had been developed in the hands of van Helmont and Conway. Indeed, van Helmont's *Cabbalistical Dialogue* (one of the pieces from which I was drawing in the last section) was designed specifically as a response to this work of More. The intentions of these two works are indicated by their extended titles: *The Foundations of the Philosophy or Cabbala of the Eagle-Boy-Bees, which denies all creation properly so called, and supposes the divine essence to be, as it were, corporeo-spiritual, and the material world to be in some manner spiritual. With a brief and lucid confutation of these purported foundations*, followed by the reply, *A Cabbalistical Dialogue in Answer to the Opinion of a Learned Doctor in Philosophy and Theology, that the World was made of Nothing. As it is contained in the Second Part of the Cabbala Denudata & Apparatus in Lib. Sohar; p. 308. &c.*

More's tract was in three parts. First, in a sequence of sixteen axioms, More summarised the details of the Cabbalists' rejection of the notion of essentially dead matter, and the accompanying theory of how spirits, through their degeneration, could become contracted into a 'corporeo-spiritual' form. Second, he offered a detailed confutation of these principles.¹⁰⁷ Finally, he related what had apparently been a real dream (he claims that he had it around the end of April 1675), which he felt could provide a useful allegory for the Cabbalist metaphysics, and help to expose the hidden perils that lurked within. In the dream, an eagle flew in through More's window (from the East, symbolising the oriental origins of the Cabbala), and transformed itself into a little boy. More asked the boy whether he believed in Jesus Christ. The boy said that he did not. So far, More was not unduly concerned. (The boy was presumably Jewish, after all). But, More then asked, did he at least believe in one God? With a smile, the boy told More that, no, he believed in many gods, all separate from one another. More, aghast, responded by assailing the boy with a flurry of kicks, which prompted the boy to change himself into a buzzing bee, and to fly sluggishly around More's shins (to give More an impression of what these separate gods were supposed to be like).¹⁰⁸

¹⁰⁶Reprinted, alongside More's other writings on the Cabbala, in *Opera omnia*, vol. 2.1, pp. 521–528. For discussions of this text, and the wider context, see Staudenbaur 1974, pp. 166–169, Coudert 1975, especially pp. 648–652; Coudert 1992.

¹⁰⁷Serge Hutin has quite wrongly identified the initial sixteen axioms as representative of More's own position, but his error is corrected in Staudenbaur 1974, pp. 163–169. But then, Leibniz also seems to have succumbed to the same error: see Brown 1990, pp. 80–83.

¹⁰⁸*Opera omnia*, vol. 2.1, pp. 525–526 (*Fundamenta philosophiae*, scholia).

On More's reading of the Cabbalistic doctrine, it denied that there was any such thing as 'creation' at all. As More interpreted van Helmont's position, it asserted that all that existed in the universe was an uncreated, eternal, intellectual, sensible, vital, self-moving spirit, of infinite amplitude and necessary self-existence. That is to say, the only essence to be found in the universe was that of God himself. Those falling and rising corporeo-spirits, which constituted every individual granule of rock, particle of air, or whatever else one might consider, were merely different parts of God's own substance, sluggishly bumbling about independently of one another. But the notion that these entities, which constituted the temporal world, were not really distinct from God himself was clearly tantamount to pantheism. At the same time, the fact that they were all separate from one another served to transform this pantheism into polytheism, denying the existence of *one* God altogether, just as the boy in the dream had done. Finally, the fact that their vitality had been so tremendously diminished that they had come to be stained with the imperfections of matter demonstrated that this form of polytheism was ultimately just tantamount to atomistic materialism. All in all, if God was going to be like *that*, then he certainly did not deserve the title 'God' at all. And thus, in More's opinion, this peculiar blend of pantheism, polytheism and materialism ultimately just boiled down to atheism.¹⁰⁹

The central core of More's new-found antipathy to this form of hylozoism lay in its failure, as he saw it, to establish a properly robust ontological distinction between God and the created world. It is worth noting that, when More reprinted his essays on the Cabbala in his *Opera omnia*, they formed just one part of a larger sequence of tracts, in which a denunciation of pantheism was a central running theme. The writings on the Cabbala were immediately followed, in this collection, by More's writings against the alternative versions of pantheism that he identified in the works of Jakob Boehme and Spinoza (not to mention the scholium on Glisson's version of hylozoism that he appended to the first of these critiques of Spinoza).¹¹⁰

Accordingly, when van Helmont responded to More in his *Cabbalistical Dialogue*, he deliberately endeavoured to refute the charge that he and the other Cabbalists had failed to establish an adequate ontological separation between God and his creatures. He explained that, although these spiritual beings (which might eventually become 'corporeo-spiritual' beings) were emanations *from* God, they were not made *out of* his essence. He denied that such emanations were numerically identical with the divine essence: and yet what he did still allow was that there was a '*specific*, or a *generical Identity*' between them.¹¹¹ To explicate the nature of the relation between God and these emanations, van Helmont compared it to the relation that held between a mind and its ideas, or a substance and its accidents, or the Sun and its beams of light, or the centre of a created spirit and its rays.¹¹²

¹⁰⁹*Opera omnia*, vol. 2.1, pp. 523–525 (*Fundamenta philosophiae*, confutation).

¹¹⁰On the similarities between More's complaints about these Cabbalistic doctrines and his critique of Spinoza in particular, see Coudert 1999, pp. 234–235.

¹¹¹Helmont 1682, p. 14.

¹¹²Helmont 1682, pp. 3, 5.

For More in 1675, such a relation would fall woefully short of the real distinction he now felt there needed to be between God and his creatures.

However, van Helmont's position was, to all intents and purposes, identical with More's own earlier conception of this relation. That last notion, of radiating spiritual centres, had indeed been More's own concept. (Remember the 'orb of light', as discussed in Chap. 5 above, pp. 164–166). And the earlier More had not stopped at merely illustrating the presence of a created spirit in these terms. During the 1640's, he had also used the very same image to illustrate his view of the relationship between God and the created world. True to his Neoplatonic heritage, More had at that time been describing the beings that emanated from God as 'rays' from him. Thus, for instance:

Hence the souls nature we may plainly see:
A beam it is of th' Intellectual Sun.
A ray indeed of that AETernity;...
Each life a severall ray is from that Sphear
That Sphear doth every life in it contain.¹¹³

Or, again, More straightforwardly declared that 'Ahad' (The One) was, in respect of the subsequent levels of the Ogdoas, 'as the Sunne in respect of the Light and Rainbow.'¹¹⁴

By the 1670s, however, he had long since jettisoned that way of looking at things. Chapter 16 of the third book of *The Immortality of the Soul* opens with a refutation of the Averroistic doctrine that the intellectual souls of different people were all united into one common Soul of the World, and differentiated only by the matter to which this soul was variously united. Thus far, More was merely revisiting the same territory that he had previously covered in *Antimonopsychia*, in the original set of philosophical poems. But then the *Immortality of the Soul* discussion shifts its target, from the Averroistic position as such, to another related position, one that was at least close to the way that More himself had opted to describe the situation in those very poems: namely, the 'conceit of our Souls being a *Vital Ray of the Soul of the World*'.

Admittedly, the critique that More actually proceeded to present was a little peculiar. Having first acknowledged that these terms, common among the ancients, had only ever been used metaphorically, his subsequent discussion makes it clear that he was still taking them a great deal more literally than one might expect:

For this *Vital Ray* must have some head from whence it is stretch'd, and so the Body would be like a Bird in a string, which would be drawn to a great length when one takes long voyages, suppose to the East or West *Indies*; which yet are nothing so long as our yearly sailing on the Earth from *Libra* to *Aries*. Or if you will not have it a *linear Ray*, but an *Orb* of particular life; every such particular *Orb* must be hugely vast, that the Body may not travel out of the reach of the Soul. Besides, this *Orb* will strike through other Bodies as well as its

¹¹³*The Complete Poems*, p. 21a (*Psychozoia*, cant. 2, sts. 22, 23).

¹¹⁴*The Complete Poems*, p. 156a (notes upon *The Infinity of Worlds*, sts. 8 and 66).

own, and its own be in several parts of it; which are such incongruities and inconcinities as are very harsh and displeasing to our Rational faculties.¹¹⁵

But, whatever one might think of the actual arguments that More presented in this section, the shift that he was making here was clear, and it was permanent. In his reply to Knorr von Rosenroth's letter of introduction for van Helmont, commenting on the Cabbalistic principles that Knorr had transmitted to him, More was at pains to observe: 'I should note first here that the word to emanate should not be taken in a strict philosophical sense but should be understood metaphysically (lest imagination deceive reason) to signify only that all substances are created by God so that not even at the moment of their creation could they exist without him.'¹¹⁶ And then, in the 1679 *Praefatio generalissima* to his *Opera omnia*, More identified two doctrines, which he had presented in his poems but which he now rejected. As we have already observed, one of these was holenmerianism. But it is the other one that now concerns us. More identified this second rejected doctrine as 'Actinism, or the doctrine of the radiation of all substances'.¹¹⁷

There were, as he now saw it, three main problems with viewing creatures as radiating 'emanations' from God. First, emanations, in the strict sense, would flow necessarily from their source, whereas More felt that creation should have been a voluntary act, one from which God could perfectly well have refrained, had he so wished. Second, the theory of an emanating world would seem to render the world co-eternal with God, instead of having (as More now felt that it needed to have) a definite temporal beginning. Third, and most seriously of all, by undermining the ontological separation between God and his creation, far from elevating creatures to his level, such a theory would instead serve to drag him down to theirs. God would become stained by the imperfections that characterised the material world—impenetrability, divisibility, corruptibility, and so forth. A God who was dispersed into an infinite variety of separate dull monads would scarcely be a fit object for our veneration. And, notwithstanding van Helmont's endeavours to persuade More that he and the others were still retaining a separation between God and creation, the kinds of analogies that he employed stood little chance of success. His comparison of the relation between God and creation to that between a substance and its accident, for instance, seemed little different from outright Spinozism, which More unhesitatingly (though perhaps erroneously) read as offering just another form of materialism.

Even if a firm distinction between God and creation (and the reality of both) could have been protected, and the corporeo-spiritualism of the Cabbalists could

¹¹⁵*The Immortality of the Soul*, p. 236 (bk. 3, ch. 16, §8). See also *An Antidote Against Atheism*, p. 216 (Appendix, ch. 11, §9, together with its marginal note, referring to that passage from the *Immortality*. Note that, although this section had been present in the original 1655 text of the Appendix, this particular note was not. After all, the *Immortality* had not yet been written at that time, so there was nothing to refer to).

¹¹⁶Coudert 1999, p. 225.

¹¹⁷*Opera omnia*, vol. 2.1, p. viii (*Praefatio generalissima*, §9).

have been limited to the created world alone, More still would not have been happy with it. It was simply unbecoming to a spirit, even a created one, that it should have to suffer the imperfections of matter. Admittedly, the Cabbalists' monads were supposed to be individually indiscernible (even if their aggregates were not); and More's own notion of hylopathia was not a million miles from the sort of impenetrability that characterised bodies; and the Cabbalists themselves did maintain that even the dullest monads did still retain some minimal degree of life, or at the very least the capacity for it. So More was perhaps on rather shaky ground in endeavouring to maintain quite so sharp a separation between the Cabbalists' position and even his own mature position, to say nothing of his earlier views. But, rightly or wrongly, he did perceive clear water between himself and the Cabbalists, and he concluded that their corporeo-spiritual theory was to be rejected wholesale.

More lumped this 'corporeo-spiritualism' together with various other positions that he had either always felt, or had at any rate come to decide, were grave errors in philosophy. Among these were the doctrine that all natural phenomena could be explained mechanically; the view that all extension was corporeal and spirits were nowhere; and the more unequivocal versions of materialism.¹¹⁸ These other doctrines all shared one common flaw. They failed to give due regard to spirits, both divine and created. A thorough-going mechanist, for instance, ignored the necessary and intimate involvement of spirits in all of the affairs of the corporeal world; a nullibist removed them from that world altogether; and a materialist went so far as to remove them from *existence* altogether. In their own way, as far as the mature More was concerned, the corporeo-spiritual monists were doing much the same thing, eating away at the spirits' immateriality, so much so that ultimately they did not really deserve to be called spirits any longer.

And so, in his later works, More pledged himself with ever-increasing firmness to a sharp dualism of self-active spirits and utterly lifeless bodies. The notion of a fall and rise of souls was retained to the very end of More's career: but, in his opinion, even the most debased souls could fall only so far and no further. In fact, as we will be seeing in Chap. 10, More did not think that a human soul could even fall far enough to become the life of a beast. Man was set apart from the animals by possessing a 'double nature', being blessed with a spark of divinity as they were not. Still less could a spirit—*any* spirit—fall to the corporeo-spiritual state of the Cabbalists' dull monads. Even in his early period, when he was still describing bodies as (fixed) spirits, he was merely alluding to the fact that they were endowed with some degree of intrinsic vitality. He did not think, even then, that they had arrived at that state by first falling from a higher one. As he would later put it, it 'disfigured and polluted' the doctrine of the pre-existence of souls to suppose that souls could either come from or be reduced to dung.¹¹⁹ And, as time went by, even that minimal form of life would be denied to bodies with ever-increasing firmness. More was satisfied that there was a world of 'physical monads'—as, ironically enough, he

¹¹⁸ *Opera omnia*, vol. 2.1, p. 527 (*Fundamenta philosophiae*, scholia).

¹¹⁹ *Opera omnia*, vol. 2.1, p. 524 (*Fundamenta philosophiae*, confutation, on axiom 12).

came to call them in the later part of his career—that was generically opposite to the world of spirits, with no possibility of exchange between the two.

But, as I have shown, the position that More was criticising in those later works was not exclusive to van Helmont, Conway and the other Cabbalists. In many respects (even if not in every single one), it was identical with the position that he himself had been embracing in the 1640s. The buzzing bee of More's 1675 dream, there representing the most sluggish of the Cabbalists' corporeo-spiritual monads, calls to mind a reference to 'those little flies in a Summer-evening' in *The Interpretation Generall* to More's poems.¹²⁰ In that passage from the 1640s, the flies were supposed to be illustrating More's own theory of corporeo-spiritual atoms, the multiplied cusp of the Cone and last projection of life from Psyche. The bodies that resulted from the conspissation or coagulation of these cuspidal particles were, for More at that time, really just fixed spirits. As for the Cabbalists of the 1670s, More characterised them (in the opening section of his *Fundamenta philosophiae*) as holding that whatever truly existed was spirit, and that the so-called material world was made up out of spirits that had been contracted, condensed and compressed ('*contrahi & constringi*', '*contractis & constipatis*') into physical monads.¹²¹ Although he might not have openly admitted to it in this piece, the fact remains that, thirty years earlier, More had been firmly committed to precisely this view, and had even expressed it in very similar terms.

6 More–Conway–van Helmont–Leibniz

As noted above, Conway was certainly well familiar with More's early position. She had received her initial philosophical training from More in the early 1650s, at a time when he was still broadly content with the notion of living matter. (Remember that he was still willing to defend it, up to a point, in his 1655 letter to Clerselier). Even in the 1670s, out of all of the other books of More's that she might alternatively have picked, she was still singling out his *Philosophicall Poems* for special praise, and encouraging her new philosophical friends to read it. What van Helmont brought to Conway was not so much a new way of looking at the universe, but merely new confirmation and extrapolation of her own long-established world-view. The gradual monism that formed the central core of her metaphysics had been part of her intellectual furniture long before she ever met van Helmont. Van Helmont and, through him, the Cabbala certainly did mould Conway's thought in a number of ways, but it was more a matter of ornamenting a pre-existing framework. The principal roots of Conway's thought, I contend, came from her long-established relationship with Henry More. They can be traced back to his own earliest philosophical researches, supplemented by the Christian Platonism and Cartesianism to

¹²⁰ *The Complete Poems*, p. 160b (*Interpretation Generall*: 'Cuspis of the Cone').

¹²¹ *Opera omnia*, vol. 2.1, p. 523 (*Fundamenta philosophiae*, axioms 11–13).

which he was no less responsible for introducing her, more than to anything that van Helmont might have added to these principles.¹²²

As for the degree of influence in the other direction, from Conway to van Helmont, that is not easy to pin down. It is pretty clear that van Helmont had already come up with many—probably most—of his own ideas before he met her. Many of them, after all, were derived directly out of the Cabbala, which he and Knorr von Rosenroth were actively studying before he ever arrived in England. It was he who brought that to her, after all. Other principles were inherited directly from his father, and from the Paracelsian tradition that the latter had represented; alongside still other Hermetic, Gnostic and Neoplatonic sources. But van Helmont and Conway (as well as George Keith and others) were working in such close collaboration, for nearly a decade, that it is hard not to suspect that there must indeed have been some influence in each direction. It is worth remembering that, just as van Helmont was primarily responsible for arousing Conway's interest in Cabbala, it was through her that he became interested in Quakerism, an interest that would have an effect upon him comparable to that which the Cabbala had on her. All in all, there seems little hope in isolating any individual element in their shared metaphysics, and declaring that this particular tenet definitely came from one or the other. When did Conway and van Helmont did finally meet, and compared their respective beliefs, they would have found far more agreement than disagreement, and all that was left for them to do was to iron out whatever tensions and inconsistencies they might have identified in the details, and to explore all of the ramifications of their common position, merely adding new structures to a foundation that had already been firmly established for both of them.

Now, quite aside from whatever intrinsic interest the views of van Helmont and Conway might be deemed to hold in their own right, one reason why they have received a fair amount of attention from scholars is because of a possible influence on Leibniz's mature metaphysics. Despite the clear and undeniable links between Leibniz's own earlier and later philosophy, it is also clear, and has been increasingly urged by recent commentators, that Leibniz's thought did evolve in important ways over the course of his long career. The logical claim of the 'Discourse on Metaphysics', that everything that ever befalls an individual substance can be discovered in the complete individual notion of that substance (if not by us, then at least by the infinite intellect of God),¹²³ gradually took on a more emphatically metaphysical character, whereby each substance would itself stand as the active, vital *cause* of every change it would ever undergo. Now, many of Leibniz's innovations, such as his celebrated theories of pre-established harmony or well-founded phenomena, were clearly original with him. Nevertheless, several authors have also cast about in search of sources that might have helped to influence the shift in Leibniz's perspective, giving him not only the *word* 'monad' but perhaps some aspects of the theory too.

¹²²Also see Brown 1997, p. 103.

¹²³Leibniz 1989, pp. 44–45 (Discourse on Metaphysics, §13).

Henry More, Anne Conway and Francis Mercury van Helmont have all been named in this survey of possible influences, and different scholars have had their own favourites among these. Leibniz certainly did read works by all three, and he generally referred to them in favourable terms, though still admonishing them where he felt they erred or went too far. He remarked, for instance, that he had come to see '[h]ow to make sense of those who put life and perception into everything—e.g. of Cardano, Campanella, and (better than them) of the late Platonist Countess of Conway, and our friend the late M. Franciscus Mercurius van Helmont (though otherwise full of meaningless paradoxes) together with his friend the late Mr Henry More.'¹²⁴ As far as a *direct* influence is concerned, Allison Coudert's excellent research into the personal and philosophical relations between Leibniz and van Helmont has shown that it is probably he, more than either of the other two, who deserves the greatest credit on that score.¹²⁵ Although the philosophy of van Helmont and Conway was, in many ways, a collaborative effort, it was van Helmont rather than Conway who actually drew this shared system to Leibniz's attention. As for More, it has been rightly recognised by Coudert and others in the secondary literature that, during the time when Conway and van Helmont were jointly developing their vitalistic, monadological views, he was vigorously opposing them. More might have used the term 'monad', but he used it primarily to refer to physical atoms which, as he was keen to insist, were utterly bereft of all life and self-activity. Leibniz did read a number of More's mature works, but he does not appear to have had much awareness of his earlier writings (aside, one presumes, from the correspondence with Descartes). The poems in particular, unlike most of More's works, never made it into Latin—and they were pretty heavy-going, even in English! Most of Leibniz's remarks on More concern his mature theory of the universal Spirit of Nature or Hylarchic Principle, a theory that Leibniz firmly rejected in favour of a mechanistic physics; and this was probably what Leibniz had in mind when he included More among those who had put life into everything. All in all, my intention is not to insinuate any direct influence on Leibniz from either the early or the late More. But Conway certainly did know those early writings, and van Helmont must surely have been exposed to them too. All in all, it does seem plausible, given their personal and philosophical relations, that More's early thought did influence that of Conway and van Helmont; and, consequently, to the extent that van Helmont can be identified as a direct influence on Leibniz, the early More might be identified as an *indirect* influence on him.

The brief summary of the Conway-Helmont position that I set out above should be sufficient to persuade anyone already familiar with Leibniz's monadology that

¹²⁴Leibniz 1996, p. 72 (bk. 1, ch. 1).

¹²⁵See Coudert 1995, especially chs. 1–3; and Coudert 1999, ch. 13. On the wider question of the various possible influences on the development of Leibniz's monadology, Coudert lists several further resources in the secondary literature. Especially useful, on the relations and influences between Leibniz, More, van Helmont and Conway in particular, are Merchant 1979a; Merchant 1979b; Merchant 1980, pp. 253–268; Wilson 1989, ch. 5; Brown 1990.

there are indeed a number of intriguing philosophical parallels to be discerned. Not only the word ‘monad’, but also a lot of the theory concerning the nature of such simple substances—or at least something quite close to it—was present here too. Moreover, van Helmont and Conway’s basic conception of the nature of a human being (or, for that matter, pretty much any other integrated composite being) was very similar to Leibniz’s own conception. For Leibniz too, a living being was an aggregate of infinitely many monads. Moreover, this aggregate was not merely alive as a whole. It would contain infinitely many further aggregates of monads within itself, each of which would constitute another, lesser, living being. ‘From this we see that there is a world of creatures, of living beings, of animals, of entelechies, of souls in the least part of matter... Thus there is nothing fallow, sterile, or dead in the universe.’¹²⁶ In each such aggregate of monads, and there was one in particular that would (in some manner, the explanation of which would, for Leibniz, need to be drawn up in terms of pre-established harmony) dominate the others, much like Conway’s ‘principal ruler’ in the order and government of her own compound beings. ‘Thus we see that each living body has a dominant entelechy, which in the animal is the soul; but the limbs of this living body are full of other living beings, plants, animals, each of which also has its entelechy, or its dominant soul.’¹²⁷ The reason why Leibniz believed that the dominant monad in each aggregate could be characterised as an ‘entelechy’, in such a manner that the aggregate as a whole could justly be regarded as a living thing, was precisely because he viewed monads to be, without exception, vital principles.

Their vitality did not actually extend to an efficient causal power over other monads, but rather consisted in the fact that every single one was endowed with ‘appetition’. This was an internal principle of spontaneous change; specifically, the changes that the monad’s ‘perception’ would manifest over time, the latter being its internal representation of the entire universe. But, to the extent that appetite and perception were supposed to characterise every single monad, Leibniz believed—in contrast to strict dualists—that all monads were generically alike. And, given that spontaneous self-activity was widely held to be peculiar to spirits, and to be one of the principal ways in which the essence of spirit might be distinguished from that of bare matter, this genus should probably be characterised as a spiritual one. (The genus would additionally qualify as being incorporeal for those who believed that the contrast should instead be drawn up in terms of the possession or lack of extension: Leibniz’s monads were not actually extended, even though their aggregates would be represented in such a manner within perception).

Individually, however, Leibniz’s monads certainly did differ from one another—indeed, Leibniz did not think that *any* two monads could be exactly alike—and one principal ground of this difference lay in the fact that, even if they were all taken to be spiritual, some of them would nevertheless be more truly mental than others. Different monads would vary in the degree and the distribution of distinctness and

¹²⁶ Leibniz 1989, p. 222 (‘The Monadology’, §§66, 69).

¹²⁷ Leibniz 1989, p. 222 (‘The Monadology’, §70).

conscious awareness ('apperception') in their perception, and in the capacity of their memory, reason and other such cognitive faculties. When a monad's perception was distinct and accompanied by memory, Leibniz would call the monad a 'soul'; when the monad additionally possessed reason, he would call it a 'mind'.¹²⁸ Many monads, however, were entirely bereft of apperception and those other higher capacities. They still had perception, in the sense of an internal representation of the universe, but they were perfectly oblivious to the fact. In an aggregate that happened to contain lots and lots of these unapperceptive 'bare monads', and just one that was lucky enough to be endowed with the perfections of conscious and rational thought, it was only natural that it should be the latter that should have the privilege of being the dominant one. Thus it was that a man's mind was, to a large degree (though perhaps not totally), in control of his body.

Now, Leibniz seems to have been of the opinion that it was entirely possible—indeed, normal—for one of these bare monads to continue in such a state from the first moment of its creation to the final moment of its annihilation (if any). Leibniz did not, however, go so far as to rule out the possibility that such a bare monad might awaken to become a human soul. According to the testimony of Michael Gottlieb Hansch: 'I remember that once, when Leibniz and I met in Leipzig and were drinking *caffè latte*, a beverage which he greatly savored, he said that in the cup from which he was drinking there might be, for all we know, monads that in future time would become human souls.'¹²⁹ But what we do not find in Leibniz's works is any firm commitment to Conway and van Helmont's thesis that *all* of God's creatures should undergo a fall from and a subsequent return to perfection. However, that point aside, Leibniz's bare monads, existing as they did in a state akin to 'sleep' or 'stupor',¹³⁰ were very much like van Helmont and Conway's 'dull' and 'blind' monads.¹³¹

But that latter theory was, in turn, very much like the position that More had set out in his early writings, with his quasi-vital cuspidal particles of the Cone. I accept Coudert's judgment that van Helmont probably did have some impact on the development of Leibniz's mature metaphysics. I also agree, with her and with others (such as Carolyn Merchant), that Conway may well have had some impact too. Van Helmont might have been the one who provided the channel through which Leibniz came to be exposed to their philosophy, but it was a philosophy that the two of them shared and had developed side by side. But, as I have suggested, the influence of the Cabbala on the development of these common opinions, although certainly real, should also be balanced against a parallel influence from More. When van Helmont and Conway came together, they found that they already had several central opinions in common. There was no single source for either of them; and, of course, both

¹²⁸ Leibniz 1989, pp. 215, 217 ('The Monadology', §§19, 29).

¹²⁹ As quoted by Coudert from Hansch, *Godefridi Guilielmi Leibnitii Principia philosophiae, more geometrico demonstrata*, p. 135 (Coudert 1999, p. 327).

¹³⁰ Leibniz 1989, pp. 215–216 ('The Monadology', §§20, 21, 23, 24).

¹³¹ See Coudert 1999, pp. 313–314.

were quick-witted enough to go considerably further than their sources had gone anyway, purely on the basis of their own intellectual resources. But, to the extent that a single, prevailing source can be isolated for either of them, whereas for van Helmont it was the Cabbala, for Conway it was instead the philosophy of Henry More. The irony is that it was a philosophy that its own author had shrugged off many years earlier, and to which he was now vigorously opposed.

Chapter 8

Mechanism and Its Limits

1 Introduction

In Chap. 2, I laid out the fundamental structure of More's corporeal world. But such a treatment is bound to be profoundly inadequate, even just as a treatment of the corporeal world alone, given the tremendously intimate connections that More envisaged between this and the world of spirits. We have seen that Morean spirits were supposed to be co-extended with the entities of the corporeal world: but spirits did much more than simply overlap with bodies. In this chapter and the next, we will examine the role that spirits in general, and the universal Spirit of Nature in particular, were supposed to play in governing the affairs of More's universe.

'That, indeed, matter exists is acknowledged by all', wrote More.¹ He never showed any real interest in the external-world scepticism that Descartes had generated in the First Meditation. As noted in Chap. 1 (pp. 27–28), More regarded sensation as being every bit as authoritative within its own proper domain as the innate common notions were in theirs. In the absence of solid evidence to suggest that the senses might actually be leading us astray, he felt that it would be literally irrational for us not to place our trust in them as reliable providers of knowledge; and the most basic knowledge he believed they provided was an awareness of the existence of bodies in our immediate environment. But, more than that, the senses also revealed that the physical world *changed* over time. The heavenly bodies shifted about in relation to one another; the rain fell, the winds blew, the tides ebbed and flowed; trees grew, and apples fell from their boughs; ewes bore lambs, and lambs gambolled on the hillside; men played billiards, and the billiard balls pushed one another about on the table. The fundamental question for us to answer is: what accounted for these changes?

As I just noted in the last chapter, this question admits of two quite different kinds of answer. Physically, one might simply seek to identify a set of laws that

¹*Enchiridion metaphysicum*, vol. 1, p. 77 (ch. 9, §10).

could succinctly encapsulate the regularities we experience in natural phenomena. Metaphysically, one might seek to identify the true causal principles that underpin such laws. And, in More's day, there were several positions on the table.

One option was, indeed, simply to dismiss the metaphysical question altogether. One could maintain that bodies really did operate as genuinely efficient causes in the fullest sense of the term, and maintain that, once one had managed to subsume a physical phenomenon under natural laws, one had thereby explained it as fully as anyone could reasonably wish. At only a slight risk of anachronistically projecting seventeenth-century concepts back onto an era where they do not really belong, one might characterise the position of the classical atomists in this way. As far as those atomists had been concerned, the material world had existed from eternity, its particles banging into one another and communicating motion by impact. Leaving aside the notorious 'clinamen' of the Epicureans, that slight swerve that atoms would occasionally undergo randomly, the ancient atomists believed that the universe was a fully deterministic system. Moreover, and perhaps leaving aside weight as an intrinsic principle of downward self-motion, they felt that the laws that determined this system were fully mechanical in nature. That is to say, they felt that the precise manner in which motion was communicated between their solid and indivisible atoms would be determined by those atoms' sizes, shapes and motions. And they felt that these atoms and their compounds would forever continue to bounce about, to and fro, as chance or mechanical determination might happen to dictate, without any spiritual intervention, or any kind of intelligent design or providence to govern the system. Since absolutely *everything* in the Epicurean universe was reducible to atoms and void (and void was mere nothingness anyway), there was simply nothing *else* available to call upon, to support a metaphysical explanation of phenomena that went beyond the physical influence of atoms on other atoms.

But this sentiment was actually quite rare in the early modern period. Aside from Hobbes and maybe a small handful of others, even those seventeenth-century natural philosophers whose *physical* systems were drawn up in exclusively mechanistic and materialistic terms would generally still continue to embrace a dualist *metaphysics* of some kind or other. And this generally did not apply solely to matters of mere ontology—as if, although a spiritual realm might *exist*, it had absolutely nothing to do with the corporeal realm. These philosophers' metaphysical ontologies would often also infiltrate their theories of causation and explanation in the physical world too. While they were wearing their physicist hats, they might seek explanations that were framed exclusively in terms of bodies and their mechanical properties. But then, at a metaphysical level, they would often also recognise that such explanations could only go so far, and would allow that it was additionally necessary to refer to spiritual influences in any adequate metaphysical account of the workings of the physical world.

Thus, for instance, the Cartesians generally did feel that *physical* explanations of corporeal phenomena (with the possible exception of the influence of a man's will on his own body) should indeed be drawn up exclusively in terms of mechanical laws of the communication of motion by impact. And perhaps some of them—maybe Rohault, whom we touched upon in the last chapter (pp. 249–250)—were content just to

leave things there. But many of them—maybe even a majority—felt that this approach was *metaphysically* insufficient. At a metaphysical level, the Cartesians often tended to deny that one created substance could genuinely affect another by efficient causation at all. Instead, the occasionalists claimed that it was God who did everything to everything, and that the illusion of creaturely activity derived from the regularity of his general volitions. Meanwhile, an alternative position was developed by Leibniz. Leibniz's physics was mechanical through and through. All of the changes in one body, he felt, would develop as a direct result of the influence of another impinging body, in accordance with laws of nature that could be mathematically drawn up exclusively in terms of size, shape and motion. But then Leibniz also offered a more penetrating metaphysical account. He explained that, at the metaphysical level, created substances did not have any genuine power to influence one another after all. On the other hand, he differed from the occasionalists in that he did not refer such activity to the direct influence of God either, for what Leibniz *did* allow was that a created substance had the power to alter *itself*. Creaturely causal efficacy, for him, could reach to the individual substance out of whose internal appetite it arose, but it could reach no further than that. The illusion of genuine interaction between distinct substances, as he explained it, derived from the fact that God had pre-programmed the appetitions of all created substances in such a way as to ensure that their perceptions would forever continue to evolve in harmonious ways.

And then there were still also plenty of other natural philosophers around in the seventeenth century, who were not keen on mechanical explanations *at all*, even when these were understood as providing only one part of the overall story. The Scholastic Aristotelians, for instance, were continuing to construct explanations in ever-more-convoluted terms of substantial forms, entelechies and occult qualities. Different authors might have spelt out the details in different ways: but they generally agreed that, although these exotic entities might have belonged to bodies in some sense, they could not be reduced to the sizes, shapes and motions of those bodies. They might not have constituted complete immaterial substances in their own right; but, in themselves, they did not properly qualify as material either, since matter as such was treated as wholly passive. These vital forces might indeed be better understood as, to borrow More's own expression, 'corporeo-spiritual' powers.

In fact, Leibniz himself acknowledged a debt to Scholastic opinions in this area, linking his own form of vitalism to theirs. But this fact just serves to underscore the distinction between the physical and the metaphysical levels, when it comes to questions of causation and explanation. Notwithstanding the fact that both Leibniz's theory, and the various Scholastic theories to which he claimed a degree of kinship, agreed in referring corporeal phenomena to the *metaphysical* influence of some sort of vital force proper to bodies, the fact remains that Leibniz's *physics* was mechanical and Scholastic physics was not. A vitalist metaphysics of causation neither presupposes *nor* conflicts with the idea that the physical changes that such vital forces are actually causing should lend themselves to subsumption under laws of nature that can be drawn up in exclusively mechanical terms.

But there is a disanalogy here, between the mechanical and the non-mechanical approaches to physics, in that the latter approach does have metaphysical consequences in a way that the former does not. A mechanical physics is equally compatible with an occasionalistic, or a hylozoic, or an otherwise vitalist metaphysics, *and* compatible with the hypothesis that the mechanical explanations really are the only ones to be had, with no further metaphysical story to be told at all. By contrast, a non-mechanical physics seems to point in one direction only, towards a vitalist metaphysics of some kind of other. If bodies are found to behave in non-mechanical ways, then either (i) such phenomena cannot be explained at all, *even* physically, let alone metaphysically, but simply result (like the Epicurean swerve) out of random chance; or else (ii) some non-mechanical force must be getting in on the act, whether this be coming from God, or a created soul, or an entelechy, or other some kind of spiritual or corporeo-spiritual principle. At the very least, one will need to hold that a body can possess metaphysical ‘real qualities’ that cannot be reduced to its mechanical properties of size, shape and motion.

More certainly would not have felt comfortable with option (i). From his point of view, randomness could only ever result in chaos. The manifest providential design of the world was, for him, sufficient to rule out the possibility that it had arisen through inexplicable chance events. To take just one example, the case of the structure of animal bodies, More did briefly consider the Epicurean theory of natural selection, whereby both well-adapted and defective animals had initially arisen at random out of the Earth, but the former had subsequently won out in the battle for survival and had long since devoured all trace of the latter. This, he said, was ‘the most stupid and foolish argument’. He felt that it could not explain the adaptation found in plants, or in those animals that were spontaneously generated in putrefaction, or explain the stability of species.² Admittedly, the wise contrivance of the corporeal universe, and of individual things within it, was not enough by itself to demonstrate the *constant* intervention of a spiritual agent or agent. Just as Leibniz would be suggesting, God *could* have wisely rigged it up, once and for all in the beginning, and then just left it to develop of its own accord. But what that would require is that God should have ensured that it would at least develop in a deterministic way, so that such order might be preserved over time. And maybe an entirely mechanical universe could have been deterministic enough to do this. But, if any physical phenomena were found to be non-mechanical in nature, then the preservation of order would require that some vital influence or other, be it divine or created, substantial or merely qualitative, should *intervene* in the regulation of nature, to keep things on an orderly track.

In the next chapter, we will examine More’s views on the precise role of spiritual forces in the regulation of natural phenomena, and his views on the identity of the bearer of such forces. But first, in the present chapter, we will look at More’s views

²*Enchiridion metaphysicum*, vol. 2, pp. 220–221 (ch. 24, §13). Compare Lucretius 1994, pp. 149–151 (bk. 5, lines 791–877). Cudworth also criticised this theory at somewhat greater length than More, at Cudworth 1743, pp. 672–677/Cudworth 1845, vol. 2, pp. 594–602.

on mechanism itself: for it was his increasing dissatisfaction with mechanical physics that drove him to develop his metaphysical theory of spiritual influences, constantly intervening in the regulation of natural phenomena.

2 Mechanism in More's Early Works

In his initial batch of philosophical poems from 1642, More did already show some awareness of modern mechanical theories of the evolution of the physical world. He was already aware of the views of Galileo, for instance. But, on the whole (and in proper Neoplatonist fashion), the physical world and its workings seem to have been secondary among More's interests, subordinated to the spiritual side of reality. But then, around the middle of the decade, More discovered Descartes' *Principles of Philosophy*, and his interest in the physical world, and particularly in mechanical accounts thereof, were aroused in a serious way. More came to feel that both the spiritual *and* the physical worlds needed to be taken very seriously indeed. Only by giving a full treatment of the natures of both could More hope to achieve his goal of adequately setting out the true structure of reality.

More's initial excitement at his discovery of Descartes' system inspired him to embrace the mechanistic spirit of the latter's treatment of the physical world with considerable gusto. As he told Thomas Vaughan in 1650, with reference to Descartes' natural philosophy: 'there was never any thing proposed to the World, in which there is more wary, subtile, and close contexture of reason, more coherent uniformity of all parts with themselves, or more happy conformity of the whole with the *Phaenomena* of Nature.'³ Descartes' general influence is clearly discernible in 1646's *Democritus Platonissans*, and certain specific planks of Descartes' physical system are presented with high praise in the notes that More added to *Psychathanasia* in the 1647 edition of his *Philosophicall Poems*, supplementing some briefer and rather more woolly discussions of the same phenomena that had appeared within the original 1642 text itself. To take just one example—we will examine some other case-studies in more detail below—More was happy to endorse Descartes' account of the nature of light. Light had been explained mechanically by Descartes in terms of the propagation of a centrifugal pressure in the heavenly globules of the second element, thrown out from a luminous body. More commended this account over a rival account from Sir Kenelm Digby, citing with approval Descartes' 'gentle *antereisma* or *renixus* of the AËthereall Vortices against the Organ of sight, [which] is far more solid and ingenious, agreeing exactly with all the properties of light.'⁴

More broadly, More followed Descartes in reducing the sensible (i.e. secondary) qualities of bodies into their powers of stimulating ideas in percipient minds through

³*Observations upon Anthroposophia Theomagica, and Anima Magica Abscondita*, p. 89 (upon *Anima Magica Abscondita*, pag. 55, lin. 13).

⁴*The Complete Poems*, p. 150b (notes upon *Psychathanasia*, lib. 3, cant. 2, st. 16).

the action of their microscopic particles on the sense-organs. And he defined the natures of those microscopic particles themselves in terms of their mechanical (i.e. primary) properties alone. For More, these particles would be larger than atoms as he conceived them, and hence they would be capable of possessing determinate shapes according to the way in which those figureless atoms were arranged amongst themselves in these larger clumps. But they would not possess any qualities that resembled the sensations (of colours and such like) that, *en masse*, they were disposed to stir up; and still less would they possess any chemical qualities or occult powers. Even decades later, More was still satisfied that ‘experience itself teaches us that all the differentia of the phenomena of the world appear from this fact alone that material particles have varied figures, and are agitated by diverse grades of motion, as we have demonstrated copiously in the *Epistle to V.C.* Sec. 6, to which I refer the reader, for the sake of brevity.’⁵ In section 6 of that epistle (written about 1658, published 1662), More had written: ‘I do not at all doubt but that everything which accosts our senses from the sensible world... is indeed nothing else but corporeal motion modified in different ways from the magnitude, figure, and site of the parts of matter.’⁶ And he had gone on to give several specific examples of sensible qualities—tangible textures, coldness and heat, flavours, odours, sounds, colours—sketching mechanical accounts of the physiological origins of such qualities along Cartesian corpuscularian lines.

But More was never an uncritical follower of Descartes; and, in those areas where he did find Descartes’ accounts of physical phenomena wanting, he was not shy in saying so. For instance, his third letter to Descartes included an appendix of several pages of questions and comments on specific remarks from the latter’s *Principles of Philosophy*, points on which More was not (yet) completely satisfied. He never received any response to these queries, but they relate to remarks drawn from throughout all four parts of the book, and are mostly on physical matters. Likewise, in that *Epistola ad V.C.*, he repeated some of these points of dissatisfaction with Descartes’ physical theory, and he added some more.⁷ And yet these disagreements were mostly confined to the details. Even if he was not convinced by Descartes’ own mechanical account of certain specific phenomena, this in no way entailed that he was seeking to undermine the foundations of the mechanical philosophy itself. Rather, his opinion seems to have been merely that, in most of

⁵*Enchiridion metaphysicum*, vol. 1, p. 73 (ch. 9, §5).

⁶Following Jacob’s translation in *Enchiridion metaphysicum*, vol. 1, p. 73 n. 2; the Latin can be found in *Epistolae quatuor*, p. 119. Various explanations have been suggested for the ‘V.C.’ of the title of this letter (see Gabbey 1982, pp. 214–215 n. 86). The most plausible hypothesis is that the initials merely stood for the standard honorific, ‘vir clarissimus’, rather than for a specific person’s own name. (Indeed, in his 1733 Latin edition of Cudworth’s *Systema Intellectuale*, Mosheim had no compunction about simply going ahead and writing the title out in full: ‘Epistola ad virum clarissimum de Cartesio’: see Cudworth 1733, vol. 1, p. 193 n. 3/Cudworth 1845, vol. 1, p. 276 n. 6). Of course, that does not answer the question of precisely who the ‘most distinguished man’ in question might have been: but nothing much hangs on the answer.

⁷See Gabbey 1982, pp. 214–219.

those particular cases, some alternative—but no less mechanical for that—account might be more successful. In 1655, More wrote that Descartes had ‘intituled the Laws of *Matter* to the highest Effects that ever any man could rationally do’.⁸ And his attitude was that those effects were indeed pretty high.

Admittedly, in addition to criticising Descartes as one mechanist to another, More did also place certain restrictions on the scope of mechanical explanation as such, and he was always ready to bring genuinely spiritual influences into the story wherever he perceived that mechanism had genuinely fallen short. He felt that animal behaviour required the postulation of self-active animal souls; plant life required the postulation of seminal forms; and he even felt some of the attributes and operations of stars and planets required them to have their own animating principles. Nevertheless, he felt that, physically, most other corporeal phenomena *did* simply develop of their own accord, as a result of an initial (wisely contrived and spiritually administered) spur of the matter into motion, and the subsequent propagation of such motion by impact, in accordance with laws of nature that could be formulated in exclusively mechanical terms. Even though the mechanical communication of motion might not have been sufficient to explain absolutely everything that happened in the corporeal world, it could still explain quite a lot. Thus, in 1653, More chided both Descartes and Jean Bodin (albeit only gently in both cases) for opposite faults. Descartes, he felt, had attempted to push the domain of mechanism somewhat further than could actually be sustained. But Bodin's overzealous search for spiritual influences, pushing those too far into mechanism's own proper domain, was equally misguided:

by his [Bodin's] being much addicted to such like speculations, he might attribute some natural effects to the ministry of *Spirits*, when there was no need so to do; yet his Judgment in other things of this kind is no more to be slighted for that, than *Cartesius*, that stupendious Mechanical Wit, is to be disallowed in those excellent inventions of the causes of those more general *Phaenomena* of Nature, because, by his Success in those, he was embolden'd to enlarge his Principles too far, and to assert that *Animals* themselves were mere *Machinas*.⁹

During the late 1640s and early 1650s, More felt that both the spontaneous agency of spirits in certain specific phenomena, *and* the purely mechanical laws of corporeal motion in others, needed to be acknowledged, and he was keen not to allow either to encroach on the rightful territory of the other.

It is true that More was also denying at this time that bodies could genuinely communicate motion into one another, instead maintaining that one would ‘remind’ another to put *itself* into motion by drawing on its own inherent vital resources. But, again, we just need to keep in mind the distinction between physical and metaphysical explanations of natural phenomena. The metaphysics of the situation,

⁸*An Antidote Against Atheism*, p. 190 (Appendix, ch. 3, §10).

⁹*An Antidote Against Atheism*, p. 124 (bk. 3, ch. 11, §8). The 1712 text actually reads: ‘... natural effects of the ministry...’. But the word is ‘to’ in the other editions, and I have gone ahead and made the correction.

hidden from view and open only to an intellectual insight, might indeed have been grounded in the vital energy of a corporeo-spiritual liquid fire. But that in no way entailed that the physical laws whereby this sottish corporeal life was disposed to manifest itself, laws that could simply be read off from the sensible effects, could not still be mechanical. And, in most domains even if not quite all, More was satisfied that they were. His opinion during this period was that most ordinary physical phenomena, qua *physical* phenomena, could indeed be fully described and explained by laws that referred exclusively to the size, shape, motion (and situation) of solid bodies.

Far from undermining the wise and providential contrivance that More regarded as pervading the physical universe, the blind inflexibility of these mechanical laws of nature was the very thing that *ensured* the preservation through time of the order that God had instituted in the beginning, without the need for any further spiritual intervention. Indeed, in More's most sustained presentation of the Argument from Design for the existence of God (in the second book of *An Antidote Against Atheism*), he actually appealed to such considerations in order to *defend* the mechanical hypothesis. Here as elsewhere, he noted that mechanism could not explain absolutely everything, and that it was necessary to call upon the spermatic influence of spirits in certain specific areas where mechanical explanation did fall short. But he nevertheless applauded the mechanical philosophy for the way in which it served to make the works of God intelligible to us, and predictable by us once we had discovered the specific laws whereby motion was actually communicated. This predictability itself constituted a reason why—as the summary of the contents of the section in question put it—God would choose to permit ‘the Effects of the mere Mechanical motion of the Matter to go as far as they can’:

And verily, it is far more suitable to Reason, that God making the *Matter* of that nature, that it can by mere *Motion* produce something, that it should go on so far as that single Advantage could naturally carry it; that so the Wit of Man, whom God hath made to contemplate the *Phaenomena* of Nature, may have a more fit object to exercise it self upon. For thus is the Understanding of Man very highly gratified, when the Works of God and their manner of production are made intelligible unto him by a natural deduction of one thing from another; which would not have been, if God had on purpose avoided what the *Matter* upon *Motion* naturally afforded, and cancelled the Laws thereof in every thing. Besides, to have altered or added any thing further, where there was no need, had been to *multiply Entities* to no purpose.¹⁰

At this time, with regard to most physical phenomena, More did not feel that it was necessary to appeal to anything more than the regular, mechanical communication of motion between bodies, just as long as the laws and the initial conditions were allowed to have been wisely contrived by God. Consequently, he opted to make do with that alone.

It was only later that More came to decide that Descartes had actually been over-reaching himself considerably more than he (More) had initially suspected.

¹⁰*An Antidote Against Atheism*, pp. 39–40 (bk. 2, ch. 1, §6). For the summary of contents, see p. 37.

This second book of *An Antidote Against Atheism* had surveyed a wide range of physical phenomena, and More had sought to show the considerable degree to which these could indeed be explained mechanically. But, by the time he was preparing the scholia for the 1679 edition, he had long since come to restrict the scope of such mechanical explanations very severely indeed. ‘These Laws of Matter I found to be fewer afterwards, than when I wrote these things’, he observed in these notes. ‘When I wrote these things, as I have a little before intimated, the prejudices of the *Cartesian* Philosophy stuck a little too close to my mind’; ‘then I suspected many things might be made by mere mechanick reasons, from that general impression of motion. But now I perceive all things, which are made in the free course of Nature, are not only approv’d of by the Divine Wisdom, but that their Laws were implanted in the *spirit of Nature*, by the help of God.’¹¹ More had, by this time, come to the conclusion that, as a matter of fact, there was ‘no purely-Mechanical *Phaenomenon* in the whole Universe’ at all.¹² Not only could mechanical laws of material motion not explain *all* physical phenomena by themselves: as it turned out, they could not really explain *any*. And the problem was *not* that mechanical physics was inconsistent with More’s metaphysical commitments. The problem was rather that it was falsified by the *empirical* data.

3 The Limits of Mechanism: Some Case-Studies

Alan Gabbey has already presented a couple of extensive and mostly excellent surveys of the evolution of More’s attitudes towards Descartes and mechanism over the course of his career, so there is no need for me to trawl through every last bit of relevant material again.¹³ I shall merely highlight a few important steps along the way.

One especially clear illustration of the gradual changes in More’s attitudes to the mechanical philosophy is to be found in his discussions of the ebb and flow of the oceanic tides. More discussed this long-standing ‘disgracement of Philosophie’¹⁴ in his earliest poems, and he was still discussing it in some of his final works, some

¹¹*An Antidote Against Atheism*, pp. 153–154 (scholia to bk. 2, ch. 1, §6; and to ch. 2, §1).

¹²*Divine Dialogues*, p. viii. This phrase actually appears in the epistle from the *publisher* to the reader, which is signed ‘G.C.’. This epistle could yet have come from More’s own hand: but, even if it did not, then its author was certainly someone who had thoroughly digested More’s writings and ideas, who was accurately expressing More’s own opinions as they stood in 1668, and whose work must at least have been authorised by More himself. The same claim also recurs in the marginal title of §8 of the first dialogue, ‘That there is no *Phaenomenon* in Nature purely mechanical’ (p. 16). But, even if some subeditor other than More himself was responsible for adding those marginal titles, one can still presume that, again, More must at least have consented to them. The sentiment is certainly his.

¹³See Gabbey 1982; Gabbey 1990. Also Fouke 1997, ch. 6; and Jesseph 2005, pp. 202–206.

¹⁴*The Complete Poems*, p. 81b (*Psychathanasia*, bk. 3, cant. 3, st. 56).

four decades later. The topic first arises in *Psychathanasia*, in the context of a survey of several arguments for the motion of the Earth. At this time, More was inclined to follow the theory of Galileo, who had explained tidal flow directly in terms of that motion (with a view to adding support thereby to the more fundamental hypothesis). According to Galileo, the motion of any given part of the Earth was in fact a complex of two distinct component motions, one deriving from the annual orbit of the Earth around the Sun and the other from the daily rotation of the Earth on its own axis. In the regions on the far side of the Earth from the Sun, these motions would operate in the same direction; in the regions on the near side, they would oppose one another. It followed that the overall absolute motion of the further regions would be greater than that of the nearer ones, and Galileo contended that, as the Earth rotated, the successive acceleration and deceleration in any given place would cause the water there successively to swell and recede. In 1642, More was content with this explanation.¹⁵

But then, in the 1647 notes on this canto of *Psychathanasia*, More supplemented this with Descartes' alternative explanation. For Descartes, the Earth was surrounded by a swirling vortex of heavenly globules. But this vortex would also be home to the Moon, the solid bulk of which would block the free passage of such globules through the space that it occupied. For any given axis through the vortex, when the Moon happened to present along that axis, it would thus narrow the channel through which the heavenly globules could pass. Moreover, since the presence of an equal quantity of such aethereal matter on each side of the Earth along any given axis was the very thing that determined the Earth's position within the vortex along that axis, the presence of the Moon on one side of the Earth would actually cause the latter to recede away from the centre of the vortex towards the other side, so as to equalise the free channels on its two sides. But then, in order that the same quantity of heavenly matter might be able to squeeze through this pair of narrowed channels as was constantly arriving at them from the adjacent, unimpeded regions of the vortex, it would need to move more rapidly. This would subject the oceans on those two sides of the Earth to a comparatively greater impulsive force from the aether as it rushed by, and that would cause it to diminish while the levels elsewhere would swell. Having presented this account in these 1647 notes, in effectively a direct English translation of Descartes' own words in the *Principles of Philosophy*, More declared: 'these principles of *Mons. des Chartes* as they are plain and perspicuous in themselves, so are they also exactly agreeable with the *phainomena* of Nature.'¹⁶ But both Descartes' theory and that of Galileo before him, although different, were entirely mechanical, drawn up in terms of the communication of motion by impulse in accordance with laws that could be expressed adequately in terms of the size, shape and motion of the solid bodies (large or small) that happened to be involved.

¹⁵Compare *The Complete Poems*, pp. 152a–153a (notes upon *Psychathanasia*, bk. 3, cant. 3, st. 56) with Galileo 1997, pp. 282–303 ('Fourth Day', ch. 14). See also Staudenbaur 1968, especially pp. 566–568, 576–578; Hall 1990a, pp. 38–40.

¹⁶Compare *The Complete Poems*, pp. 153a–154a (notes upon *Psychathanasia*, bk. 3, cant. 3, st. 56) with Descartes 1991, pp. 205–208/AT 8A:232–236 (pt. 4, §§49–52).

More continued to endorse Descartes' theory of the tides in 1651's *Second Lash Of Alazonomastix*,¹⁷ and again in 1660's *Explanation of the Grand Mystery of Godliness*. But a comparison between the different editions of the latter work is illuminating. What More wrote in the original 1660 version is as follows:

The like may be answered concerning *the Flux and Reflux of the Sea*; the ground whereof is rationally from what *Des-Cartes* has set down in his *Princip. Philos. part. 4.* namely, That the *Ellipsis* of the celestially Matter is streightned by the Moons body, which makes the *Aether* flow more swift: which is a plain and mechanicall solution of the *Phaenomenon*. And then we finde by certain experience that this *Flux and Reflux* depends on the course of the Moon, so that there can be no deceit in the business.¹⁸

But then a new clause was quietly inserted into this passage in the 1675 Latin translation of the work, and subsequently retained in the 1708 English edition of More's *Theological Works*. Where he had previously described Descartes' theory as 'a plain and mechanicall solution of the *Phaenomenon*', he now added the words 'and such as rightly understood may be true'.¹⁹ Descartes' mechanical solution was certainly not to be dismissed out of hand: but More now felt that there was a need for caution over precisely how it ought to be interpreted.

The context of this remark in *An Explanation of the Grand Mystery of Godliness* was a wider confutation of astrology. Given that More was rejecting the astrologers' spurious celestial influences, it was incumbent on him to distinguish those from the few genuine influences from heavenly bodies like the Moon that he was prepared to countenance. The discussion elicited a reply from John Butler, *Hagiastrologia, or The most Sacred and Divine Science of Astrology* (1680), which in turn prompted More to extract these four chapters out of the *Grand Mystery* and to reprint them separately as *Tetractys Anti-Astrologica* (1681), responding directly to Butler's objections in copious accompanying annotations. In those 1681 notes, More again turned to the issue of the tides, and he again revealed a certain ambivalence towards Descartes' theory. Although the passage from the *Grand Mystery* was here reprinted in its original form, without the extra clause, More used these annotations to explain his new attitude towards it:

I will only advertise thus much by the by, that whereas I say, it is a plain and mechanical solution of the *Phaenomenon*, the sense is, That this mechanical way of solution makes the Doctrine of the *Flux and Reflux*, plain and intelligible. But that it is not merely *Mechanical*, I have shewed in my *Enchiridion Metaphysicum*, cap. 14. Of which the natural upshot is, that the Laws of the *Aestus marinus* are executed *sympathetically* and *synergetically* by the *spirit* of the *World*, and by the *body* of the *Moon*, *Mechanically* as by his Instrument, and not by any strange Influence from her.²⁰

¹⁷*The Second Lash of Alazonomastix*, pp. 81–83, 151 ([upon page 29]; and upon [page 80], observation 44).

¹⁸*An Explanation of the Grand Mystery of Godliness* (1660 edition), p. 346 (bk. 7, ch. 16, §4).

¹⁹*An Explanation of the Grand Mystery of Godliness* (1708 edition), p. 245 (bk. 7, ch. 19, §4). (This is the same chapter as ch. 16 in the 1660 edition, but merely renumbered due to an insertion earlier in the book). The change was first made in the work's Latin translation, *Magni mysterii pietatis explanatio*, in *Opera omnia*, vol. 1, p. 303.

²⁰*Tetractys anti-astrologica*, p. 84 (annotations upon ch. 16, §4). The original extract from *An Explanation of the Grand Mystery of Godliness* is to be found on p. 56 in this volume.

Although More still felt that the correct explanation of the tides would make reference to the effect of the Moon on the heavenly matter in the vortex surrounding the Earth, he now felt that there had to be more to the story than just that alone. The chapter of 1671's *Enchiridion metaphysicum* to which this passage alludes had indeed been devoted to the tides; and, in it, More had still been happy to shower praise upon Descartes' theory. 'Indeed', he wrote, 'of all the speculations which occur in the Cartesian philosophy, that of the marine tides has always seemed to me the most elegant and beautiful, and I add, the most solid; for I still feel that it has, for the most part, arrived at the causes of this phenomenon.'²¹ He began by pointing out the areas where the theory had actually been very successful: but then he proceeded to point out several places where he now felt it fell down.

For instance, although tidal motion would only be observed in yielding, fluid matter such as the water of the oceans, the heavenly globules that were supposed to be causing this tidal motion by pressing down on the water were also supposed to be pressing down everywhere else too. But if their pressure was enough to shift so colossal a body of water, then how come the stalks of grass and the trunks of trees did not also bend under the same pressure? Indeed, how come *we* did not feel this pressure ourselves?²² In any case, More insisted,

if no other force other than what is purely mechanical were beneath the motions of the sea water, it could be contained by no shores, but like the saliva which a boy in play spits on a gyrating spinning top, would be thrown out in all directions of the earth; or rather, would leap out into the air itself, and would utterly abandon the earth, taken up into the airy regions and dispersed I know not where, unless perhaps it were to abandon its consistency and were to pass into thin vapours.²³

The argument here has certain echoes of Ptolemaic (or Aristotelian) arguments for geocentrism, wherein it had been contended that objects would be thrown off the Earth if it was moving as Copernicus had suggested. And More himself had actually ridiculed such arguments in *Psychathanasia*: 'These and like phansies do so strongly tye / The slower mind to agèd Ptolemee', he had there sniffed dismissively.²⁴ And yet More now felt that, if the Earth's rotation was to operate on mechanical principles alone, it should indeed cause anything that was not fixed down to be slung outwards. Writing in the 1679 scholia to this chapter of *Enchiridion metaphysicum*, he was still satisfied that 'no mechanical hypothesis can ever evade' this argument.²⁵

Of course, there is a very natural response to that last argument. Maybe, if there were no other forces acting on the water to counter its centrifugal endeavour, it would indeed be slung outwards. In fact, Descartes himself had freely admitted this. He had agreed that, if the spaces around the Earth were devoid of anything with the

²¹ *Enchiridion metaphysicum*, vol. 2, p. 108 (ch. 14, §6).

²² *Enchiridion metaphysicum*, vol. 2, pp. 115–117 (ch. 14, §§13–15).

²³ *Enchiridion metaphysicum*, vol. 2, p. 114 (ch. 14, §11).

²⁴ *The Complete Poems*, p. 78a–b (*Psychathanasia*, bk. 3, cant. 3, sts. 23–26, here at st. 26).

²⁵ *Enchiridion metaphysicum*, vol. 2, p. 122 (ch. 14, §11, scholium).

power to help or to hinder the motion of another body, then anything that was not fixed down would fly off, as from a spinning top.²⁶ But, of course, Descartes did not think that those spaces were empty, and he felt that the heavenly matter contained therein did indeed exert *another* force on the water, one that served to keep it in more or less the same place after all: namely the force of gravity. And More could accept this up to a point. But the point is that, unlike Descartes himself, what More could not accept was that gravity was a *mechanical* force. Whatever mechanical influences might have been in play in causing tidal phenomena, what he was insisting was they needed to be complemented by *non-mechanical* influences.

Already in *Psychathanasia*, More had been resisting mechanical analyses of gravitation, instead arguing for ‘Earth, Water, Air, in one to be fast bound / By one *spermatick* spright,’ namely the seminal form of our planet.²⁷ He subsequently returned to the issue, first in *The Immortality of the Soul* (1659), then in a comparable passage that was inserted into the 1662 edition of *An Antidote Against Atheism* (but which had not been present in its 1653 or 1655 editions), again in the first of the *Divine Dialogues* (1668), and finally in Chap. 11 of *Enchiridion metaphysicum* (1671).²⁸

More felt that, if the physical world was governed by purely mechanical laws of motion, then, other things being equal, a bullet shot straight up into the air ought to carry on going forever, never to return. That moving bodies, if unmolested, should carry on moving along the same straight line was, as he pointed out, the ‘prime *Mechanical Law of Motion*’.²⁹ The point about mechanical explanations was that they only allowed a body’s state of motion or rest to be changed under the influence of other bodies, and any such communication of motion was only allowed to occur *by impact*. Mechanical explanations referred solely to the size, shape and motion/rest of variously situated solid bodies. But a body’s size and shape clearly did not reach out beyond its own boundary, for they were the very things that defined that boundary. Its solidity consisted in the impossibility of another body’s being simultaneously present within this boundary, but it had no bearing on what might or might not occur elsewhere. And, likewise, a body’s motion or rest at any given moment was also referred to its own situation, admittedly in relation to other places where it had once been or would subsequently be, but where it currently was not. All in all, none of these features could endow a body with the capacity to act at a distance; and, if these were the only qualities that were allowed to participate in mechanical processes, then there could be no mechanical action at a distance. The only way for the explanation of the return of the bullet to the Earth to qualify as a

²⁶Descartes 1991, p. 190/AT 8A:212 (pt. 4, §21).

²⁷*The Complete Poems*, p. 79a (*Psychathanasia*, bk. 3, cant. 3, st. 32; and see the preceding stanzas).

²⁸*The Immortality of the Soul*, pp. 216–219 (bk. 3, ch. 13, §§1–6); *An Antidote Against Atheism*, pp. 43–44 (bk. 2, ch. 2, §7); *Divine Dialogues*, pp. 17–23 (dial. 1, §§9–12); *Enchiridion metaphysicum*, vol. 2, pp. 1–18 (ch. 11).

²⁹*An Antidote Against Atheism*, p. 43 (bk. 2, ch. 2, §7).

mechanical one would be if the bullet was to encounter some physical thing that was actually present up there in the sky, something that could touch it and force it back down by impact.

Now, various attempts to construct just such a theory were getting presented in More's time, and More paid close attention to two of these: that of Hobbes and that of Descartes himself. In only slightly different ways, both Descartes and Hobbes had suggested that the tendency of heavy objects to descend could be explained in terms of an immediate impact on those objects by subtle matter, and that the motion of this subtle matter could itself be explained in purely mechanical terms, by reference to the motion of the Earth. They both maintained that the rotation of the Earth would give rise to a centrifugal endeavour, which would tend to fling things outwards as they strove to persist in rectilinear motion, as the mechanical laws of motion dictated that they should. But certain kinds of matter would recede from the Earth more or less readily than other kinds; and aerial or aethereal matter, being the most fluid and easily moved, would flee the most readily. But what this would mean is that the more solid, heavier bodies would be obliged to descend, to take the place of the fleeing air or aether, instead of permitting a vacuum to appear. The aether would force them downwards by, as it were, elbowing them out of the way in its rush to escape.³⁰

In 1659, More was not wholly averse to such an approach, although he did feel that it was additionally necessary to bring in a spiritual agent, just to ensure that everything worked out properly. He wrote in *The Immortality of the Soul*, concerning the descent of heavy bodies:

I agree with *Des-Cartes* in the assignation of the immediate corporeal cause, to wit, the *AEthereal* matter, which is so plentifully in the Air over it is in grosser Bodies; but withal do vehemently surmise, that there must be some *Immaterial* cause, such as we call *The Spirit of Nature*, or *Inferiour Soul of the World*, that must direct the motions of the *AEthereal* particles to act upon these grosser Bodies to drive them towards the Earth.³¹

Subsequently, though, the role of this Spirit of Nature came to be pushed much more fully to the fore, while the role of its aethereal instrument was reduced. In a 1679 note to that 'I agree with *Des-Cartes*' remark, More would write:

I made a Conscience, as it should seem, here of forsaking wholly the *Cartesian* Philosophy. But now, ingenuously to confess the Truth, as I find it, that *AEthereal* Matter is no more the immediate material Cause of the Descent of a Stone, than the Stone it self is the immediate material Cause of the Ascent of the *AEthereal* Matter: but it is the joint and co-temporary Act of the *Spirit of Nature* upon the *Stone* and *AEthereal* Matter together: for that Spirit penetrating even all things is never idle.³²

One problem was that, as far as More was concerned, there was no convincing mechanical explanation of why the various distinct particles of this aethereal matter

³⁰See Descartes 1991, pp. 190–194/AT 8A:212–217 (pt. 4, §§20–27); Hobbes 1839, vol. 1, pp. 508–526 (*Elements of Philosophy*, pt. 4, ch. 30).

³¹*The Immortality of the Soul*, p. 217 (bk. 3, ch. 13, §1).

³²*The Immortality of the Soul*, p. 224 (bk. 3, ch. 13, §1, note).

should conspire to act together, and all strike the heavy body in the same direction. Other things being equal, one would naturally imagine that these particles would bounce about randomly in every direction equally: but then a heavy object, placed in the air, would be 'equally assaulted on all sides by the occurrence of these AETHERAL particles, and therefore will be moved no more downwards than upwards, but hang *in aequilibrio*'.³³ Now, it was not that the mechanists had not bothered to try to explain how these particles should come to line up together and act in unison. They most certainly had, and More was not oblivious to this fact: but he found their purported mechanical explanations wanting. If it was all meant to come down to a centrifugal tendency, then More complained that there should then be no gravitational force at the poles, because there the rotation of the Earth was not giving rise to any motion of a kind that could result in an inertial tangential endeavour. But there was such a force at the poles. Moreover, the strength of the force ought to vary with latitude, from zero at the poles to a maximum at the equator, where the Earth's rotation was giving rise to a velocity of one complete circumference per day, accompanied by a corresponding tangential inertia. But it did not thus vary. Indeed, More felt that this centrifugal tendency ought to be perpendicular to the axis of rotation, which would mean that its angle to the Earth's surface would also need to vary. But that did not vary either. More's *Enchiridion metaphysicum* includes a charming pictorial representation of a couple of men, standing at a 52 degree declination from upright, as he felt that people in Cambridge (latitude 52 degrees North) would surely need to do if gravity really did operate in the manner that Hobbes (in particular) had described.³⁴

Another problem was that the aethereal matter seemed to be far too thin and ineffectual to resist the course of a flying bullet, let alone to reverse it: 'all the resistance that this lax and disunited Element could make... could no more keep down the above-said Bullets from receding from the Earth, than an Army of the smallest Flies stop a Cannon-bullet flying in the Air, let them resist it as stoutly as they can. So plain a Demonstration is this *Phaenomenon* of the *Gravity*, that there is a *Spirit of Nature* which it the Vicarious Power of God upon the *Motion* of the *Matter* of the Universe.'³⁵ If anything, it should have been the bullet that shifted the aether, not vice versa. It seemed ridiculous to suggest that the lighter and more fluid matter should be capable of repelling the weighty and solid body. (It is worth remembering that Descartes himself—wrongly, as even many of the Cartesians themselves recognised—had made it his fourth impact rule that a smaller body could never shift a larger one at all, no matter how rapidly it happened to strike it, but that it would always retain its full motion as it rebounded).³⁶ Moreover, if the gravitation of a

³³*The Immortality of the Soul*, p. 217 (bk. 3, ch. 13, §1).

³⁴*Enchiridion metaphysicum*, vol. 2, p. 10 (ch. 11, §11). The full discussion of Hobbes's theory is to be found over pp. 8–11 (§§9–11), in a passage based closely on *The Immortality of the Soul*, pp. 217–219 (bk. 3, ch. 13, §§3–5).

³⁵*An Antidote Against Atheism*, pp. 43–44 (bk. 2, ch. 2, §7). This was one of the passages added to the text in the 1662 edition.

³⁶Descartes 1991, p. 66/AT 8A:68 (pt. 2, §49).

body was to be explained in terms of a downward impulse imparted by the aethereal particles that were endeavouring to take its place, and striking against its surface as they did so, then it ought to follow that the weight of a body should depend not on the quantity of matter it contained but rather on its shape. A greater quantity of aether would strike the large upper face of a cube than struck the smaller upper end of an upright rectangular parallelepiped, even though they might have exactly the same mass. Indeed, more or less aether would strike the upper surface of one and the same parallelepiped, depending on whether it was placed upright or laid down on its side, and yet it was manifest that there was no corresponding difference in its weight.³⁷ Besides, it should in principle be possible to take a sheet of solid metal and polish it up enough that it might be used as a mirror, to deflect the course of these aethereal particles and thereby change the course of the descent of things.³⁸ These consequences of the mechanists' theories of gravitation flew in the face of the most obvious empirical facts.

For these and other reasons, More decided that gravitational attraction could not be adequately explained in terms of the impact of aethereal particles; and there certainly did not seem to be any other more solid thing, up there in the sky, that was striking against bodies in such a way as to propel them downwards. Nor could the body of the Earth itself have any *mechanical* influence on an object that fell towards it, for as long as that body was not actually in contact with it. More summed up the situation in *Enchiridion metaphysicum*: 'From what has been said above it appears sufficiently that the phenomenon of gravity cannot be resolved into purely mechanical causes. Nothing in all of philosophy is certain if this be not most certain.'³⁹

The next dozen chapters of *Enchiridion metaphysicum* traversed a wide range of other specific physical phenomena, both terrestrial and celestial, to show that none of these could be fully explained mechanically either. More had always felt that there were certain limitations on the scope of mechanical explanations of natural phenomena, but he increasingly came to feel that, as a matter of fact, *no* natural phenomena could be explained in exclusively mechanical terms. For, besides all of his specific complaints concerning this or that phenomenon, there was an even deeper problem here. One of the gravest inadequacies of mechanism, as he now saw it, was that it could not account for the cohesion of atoms into hard bodies. But then, to the extent that every macroscopic physical phenomenon—merely by dint of being macroscopic—would involve such compounds, they would *all* turn out to be depending on non-mechanical influences, at least in this one respect.

The essence of body, as More explained it in the *Divine Dialogues*, 'consists chiefly in these three Attributes, *Self-disunity*, *Self-impenetrability*, and *Self-inactivity*', and he proceeded to explain what each of these three amounted to. Of self-disunity in particular, he wrote: 'I understand nothing else but that Matter has

³⁷*Enchiridion metaphysicum*, vol. 2, pp. 5–6 (ch. 11, §6).

³⁸*The Immortality of the Soul*, p. 217 (bk. 3, ch. 13, §2); *Enchiridion metaphysicum*, vol. 2, p. 3 (ch. 11, §4).

³⁹*Enchiridion metaphysicum*, vol. 2, p. 14 (ch. 11, §15).

no *Vinculum* of its own to hold it together, so that of it self it would be disunited into a *Congeries* of mere *Physical Monads*, that is, into so little particles, that it implies a Contradiction they should be less.⁴⁰ Individually, each of these physical monads or atoms would indeed be essentially indiscernible: but a body that arose out of the union of several such atoms would naturally disintegrate back down into its component parts, were it not for some force to hold them together. But More decided that nothing in the nature of the atoms themselves could give rise to any such force.

We already looked at More's views on the nature of atoms in Chap. 2. Their intrinsic features, according to his theory, were indeed few and far between. They did have size and impenetrability, and they had motion (although not self-motion) or rest: but that was all. In particular, they did not possess shapes. Now, the shapes of atoms had played a crucial role in the Epicureans' explanation of the cohesion and hardness of bodies. As Lucretius had explained, 'things that seem to us hard and stiff must be composed of deeply indented and hooked atoms and held firm by their intertangling branches.... Liquids, on the other hand, must owe their fluid consistency to component atoms that are small and round.'⁴¹ Whereas round particles might slide smoothly alongside one another, those hooked atoms would impede one another's progress, and cohere together much as strips of Velcro do, through this entanglement of hooks. But More was having none of this. His atoms really did not have any shapes *at all*, let alone hooked ones. As far as he was concerned, the essential indiscernibility of an atom arose out of the impossibility of infinite divisibility. There had to be a lower limit to physical size, a minimum such that nothing smaller than it could possibly exist. But the presence of a hook on an atom was incompatible with its being at the lower limit of size. It was clearly possible for things to be smaller than this alleged atom, since *it* was smaller along its other axes: so why not this axis too? More did acknowledge that, if matter was going to be allowed explain its own cohesion by itself, without appeal to the unitive power of spirit, it would certainly have a better chance of doing so by reference to hooked atoms than without them: but that purely hypothetical concession was as far as he was willing to go. He wrote: 'But that mere matter should so peremptorily hold together without those *Atomi hamatae* [hooked atoms] the *Epicureans* talk of, would be to me a greater wonder than that *they* should with them; but that there remains the same wonder still how the parts of the *Atomi hamatae* hold together, for Physical parts they must have, or else they could have no figure.'⁴² More's refusal to ascribe shapes to atoms meant that he certainly could not make such shapes the basis for a mechanical account of corporeal cohesion. Ultimately, he felt that the only way to explain corporeal cohesion would indeed be in genuinely spiritual terms, and he singled out this Epicurean theory of hooked atoms as being among the chief enemies of spiritualism.⁴³

⁴⁰*Divine Dialogues*, p. 61 (dial. 1, §29).

⁴¹Lucretius 1994, pp. 48–49 (bk. 1, lines 444–452).

⁴²*Remarks upon Two Late Ingenious Discourses*, pp. 148–149 (remark 37, upon *Difficiles Nugae*, ch. 16).

⁴³For instance, in *Opera omnia*, vol. 2.1, p. 527 (*Fundamenta philosophiae*, scholia).

Putting their shapes (or lack thereof) to one side, More did at least allow atoms to possess size. But he also felt that this would need to be the *same* size in each and every case—namely, the smallest possible—which meant that such sizes could not contribute to an explanation of the *diversity* in the corporeal world, where some clusters of atoms would bind together in certain arrangements while others would not. Likewise, although all atoms were impenetrable, they were all impenetrable in exactly the same sense and to exactly the same degree, so this too could do nothing to explain the manifest selectivity in their bonding behaviour.

The last chance for a purely mechanical account of corporeal cohesion would be to explain it by appeal to motion and rest. And this was, indeed, how Descartes had sought to explain it. As he had written in the *Principles*:

our reason certainly cannot discover any bond which could join the particles of solid bodies more firmly together than does their own rest. For what could this bond be? It could not be a substance, because there is no reason why these particles, which are substances, should be joined by any substance other than themselves. Nor is it a mode different from rest; for no other mode can be more opposed to the movement which would separate these particles than is their own rest. Yet, besides substances and their modes, we know no other kinds of things.⁴⁴

Particles, then, were united to one another in bodies simply by virtue of being at rest with respect to one another. It was Descartes' first law of nature that 'each thing, as far as is in its power, always remains in the same state'; and, although he chiefly appealed to this law in relation to motion, he also made it clear that it was supposed to apply to other corporeal modes too, such as shape or, crucially, rest.⁴⁵ When a body at rest finds itself getting struck by one that is in motion, something has certainly got to give. But the precise outcome will depend on which is the greater: the inertial force that the first body has to retain the same state of rest, or the inertial force that the second has to retain the same state of motion. (Which is, in effect, Descartes' third law of nature). As long as the impulsive force on one part of a body is not too great, that part will remain at rest in relation to the immediately adjacent parts; which is to say that it will continue to cohere with them.

But More felt that this theory was quite spectacularly unexplanatory. As far as he was concerned, the fact that these particles remained at rest with respect to one another was an *effect* of whatever it was that was actually doing the work of holding them together. Hence, such rest could not also be cited as the explanatory *cause* of that union.⁴⁶ (Or again, he argued similarly that, if anyone should say that it was the quality of 'hardness' that made a compound body hard, that would be 'no more than to say, it is so because it is so').⁴⁷

⁴⁴Descartes 1991, p. 70/AT 8A:71/CSM 1:246 (pt. 2, §55).

⁴⁵Descartes 1991, p. 59/AT 8A:62/CSM 1:240–241 (pt. 2, §37).

⁴⁶See *Divine Dialogues*, p. 62 (dial. 1, §29); *The Immortality of the Soul*, pp. 27–28 (bk. 1, ch. 7, §5); *Enchiridion metaphysicum*, vol. 2, pp. 130–131 (ch. 28, §18); and elsewhere. Descartes' theory on this was not especially popular, even among his own supporters. See, for instance, Malebranche 1997b, pp. 510–16, especially p. 514 where he echoes this complaint of More's.

⁴⁷*An Antidote Against Atheism*, p. 188 (Appendix, ch. 3, §7).

Now, Descartes himself had been adamant that motion—and presumably, *mutatis mutandis*, rest as well—was to be understood merely as the transference of one body away from its immediate neighbours. He acknowledged that the common or vulgar conception of motion tended to treat it as the *action* that was driving such a transference. But he maintained that, in the strict philosophical sense of the term, motion should be understood as ‘a *transference*, not the force or action which transfers... in order to show that it is only a mode of the moving body, and not a substance, just as shape is a mode of the thing shaped, and rest, of the thing which is at rest’.⁴⁸ So perhaps Descartes’ position was not quite as circular as More alleged. It was not so much that the cohesion of the body—i.e. the mutual rest of its particles—was being explained in terms of the mere fact that they were at rest. Rather, a distinction was being drawn between rest in the strict philosophical sense (which was indeed nothing over and above the continued contiguity of these parts) and the associated inertial force or action; and it was the latter that was supposed to be explaining the former. But then, from More’s point of view, that just served to make the nature of this alleged force a complete mystery. After all, it could not be equated with the substance involved in the case, for that was just the matter of the body itself. And it could not be equated with any mode of that substance either, because, by Descartes’ own admission in the very passage I just quoted, the mode in question here was merely the (lack of) transference, *not* the force or action that was causing this. More was no friend to substantial forms as the Schoolmen had conceived them; and neither, of course, was Descartes. But, as far as More was concerned, any further force in a case like this would be approaching something of that character—except that, given that fact, it would then be better characterised not as a substantial form after all, but as a *bona fide* spiritual substance in its own right. ‘If you’ll say, some inward Substantial form [holds the parts of a hard body together]; we have what we look’d for, a Substance distinct from Matter.’⁴⁹

For this was More’s own answer to the question of how the parts of a hard body would remain at rest over time, even to the point of resisting attempts to separate them. They would be *held* together by a really distinct spirit. Spirits, for More, were essentially defined as such by their power to move bodies spontaneously. But it would be just as easy for a spirit to hold them at rest as to move them; and it was by doing this for a body’s parts that it would ensure the cohesion of the whole. And it was because a spirit could *penetrate* the body, and intimately permeate its own dimensions, that it could be in a position to exercise this power upon it. Ultimately, the reason why mere contact between the body’s parts could not establish any form of cohesion between them was because, unlike the penetration of a body by a spirit, ‘the first is only superficial; in this latter the very inward parts are united point to point throughout’.⁵⁰ To reiterate, the essence of body consisted in ‘*Self-disunity*,

⁴⁸Descartes 1991, pp. 50–51/AT 8A:53–54/CSM 1:233 (pt. 2, §§24–25), here at p. 51 (§25). The translators have bracketed the words ‘of the moving body’ here, to signal that this is an interpolation into the 1644 Latin text, drawing on the 1647 French version: AT 9B:76.

⁴⁹*An Antidote Against Atheism*, p. 188 (Appendix, ch. 3, §7).

⁵⁰*The Immortality of the Soul*, p. 27 (bk. 1, ch. 7, §5).

Self-impenetrability, and *Self-inactivity*'. It was precisely *because* bodies were impenetrable and inactive that they were also intrinsically disunited; and precisely because spirits were penetrable and active that they could do the job of holding such bodies together.

4 'Mixed Mechanics'

Notwithstanding More's earlier passion for Cartesian mechanism, at least within certain domains, his mature view was: '*That the Primordials of the World are not Mechanical, but Spermatical or Vital*; which is diametrically and fundamentally opposite to *Des-Cartes's* Philosophy.'⁵¹ He had once written of matter that 'when God created it, he superadded an impress of *Motion* upon it, such a measure and proportion to all of it, which remains still much-what the same for quantity in the whole, though the parts of *Matter*, in their various occursion of one to another, have not always the same proportion of it'. But he now added a note to this passage:

This is spoken after the way of *Des-Cartes*: As if in a certain manner, not much differing from a mechanical Impulse, God at first impress'd Motion on the Matter, and did it also immediately himself. Whereas it is much more likely, that God immediately imparted Motion, and that not *mechanical*, but *vital*, to the *Spirit of Nature*; and that this Life created and implanted in this *Spirit of Nature* by God, from the Beginning mov'd and enliven'd, as it were, the Matter of the World in such a beautiful and regular manner as we see.⁵²

But that is not to say that More ever abandoned mechanism altogether. As we have seen, even in his later works, he would continue to praise Descartes' physical theory as getting as close to an adequate explanation of natural phenomena as any purely mechanical account could get. The fact that it was not adequate *by itself* in no way entailed that it did not still have a crucial part to play in the overall explanation of the workings of the world. As More observed in a 1679 note, even though there was no 'entire Phaenomenon consisting merely of mechanical Causes', nevertheless, in most physical events, 'there is that which, so far as it concerns its own Nature, is merely mechanical'.⁵³ Or, again, in the original 1659 passage to which this note would eventually be getting appended, having first suggested that a spiritual principle was always going to be involved somewhere or other, More then added: 'Nor lastly needs the acknowledgment of this Principle to damp our endeavours in the search of the *Mechanical* causes of the *Phaenomena* of Nature, but rather make us more circumspect to distinguish what is the result of the *mere Mechanical* powers of *Matter* and *Motion*, and what of an *Higher Principle*.'⁵⁴

⁵¹*Divine Dialogues*, pp. 255–256 (dial. 3, §30).

⁵²*The Immortality of the Soul*, pp. 43–44 (bk. 1, ch. 11, §9 and note).

⁵³*The Immortality of the Soul*, p. xvi (The Preface, §13, note).

⁵⁴*The Immortality of the Soul*, p. xiii (The Preface, §13).

More described his mature position as a 'mixed mechanical philosophy'. As he explained in a 1671 letter to Henry Hyrne:

all Mechanicall Philosophers do not believe there is any Incorporeall Being, but take it to be a piece of Non=sence, as all men conceive of Hobs. And then it is next doore to say flatly there is no Immateriall Being, as to say, y^e: supposing so much motion in the World as there is, the mere rumblement of y^e: matter with this motion will generate all y^e: corporeall Phaenomena in y^e: world. This Hypothesis is that which I call the pure Mechanicall Philosophy, & which alone I oppose, both as false & tending to Atheisme, the danger whereof I have hinted in my preface [to *Enchiridion metaphysicum*, §§6–11]. And therefore minding my owne scope, I met it in my way, & it being opposite to my designe, bid it battaile, and I think got the better of it. But for a mixt Mechanicall Philosophy I never was against it, but am as much for it, as any one, as being both solid & not at all intrinching upon Piety.⁵⁵

More did in fact regard it as the chief benefit of the study of mechanical philosophy that, by revealing its own inadequacies, such a philosophy would assist in the defence of spiritualism in general and theism in particular, despite the fact that it had regularly been taken to do the very opposite. (An attitude, incidentally, which More's colleague, Ralph Cudworth, also shared). It was, he said, precisely through studying Descartes' works that he had become assured in his view that 'it was utterly impossible that *Matter* should be the onely essential Principle of things'.⁵⁶ Even after he had developed his mature theory of the Spirit of Nature, he was still happy to recommend the reading of Descartes in public schools or universities, but he urged that 'it be done with that Faithfulness and Care, that his mechanick Philosophy may be clearly and entirely understood. For they that so understand it, will most undoubtedly be sensible of its notorious Defects; and that in order to the explicating of the *Phaenomena* of Nature, 'tis necessary that another Principle be call'd in besides Matter, and mere mechanical Motion.'⁵⁷

But, putting those notorious defects to one side, More never abandoned the view that there was *some* truth in mechanism. For instance, in his next letter to Hyrne, More alluded what we have already seen him elsewhere call the 'prime *Mechanical Law of Motion*':

I take this for a certain and an aeternall truth, that will never fail, That a body that has motion communicated to it, not for y^e: turning of it in its own axis, but for to send it packing into another place least that motion be begun as it will, if there be no externall force nor obstacles it will certainly continue it self in a right line, if there be no tampering with it a fresh any way after its first emission. This is as plaine to me as any *koinē ennoia* [i.e. common notion] in Mathematicks.⁵⁸

⁵⁵More to Hyrne, 21 August 1671, Cambridge University Library MS Gg.6.11, fol. 3r, printed in Gabbey 1990, pp. 26–27. On Hyrne, see Gabbey 1990, p. 26, and p. 34 n. 28 and n. 29.

⁵⁶*An Explanation of the Grand Mystery of Godliness* (1660 edition), p. vii (To the Reader, §7).

⁵⁷*The Immortality of the Soul*, p. xvi (The Preface, §15, note).

⁵⁸More to Hyrne, 16 November 1671, Cambridge University Library MS Gg.6.11, fol. 12r–v.

Or, again, he would write in 1676:

That Aphorism of our Learned Authour [i.e. Sir Matthew Hale, in *Difficiles Nugae*], p. 122. That regularly all natural bodily effects are wrought by a contact of some active body upon the patient. This to me seems to contradict the *Phaenomena* of Nature, and in motion confessedly so called, most numerous and universally, which is not, unless *ex accidenti*, *Mechanical* but *vital*. The descent of a stone is *vital*, as I have proved in my *Enchiridion Metaphysicum*, but its hitting or occursion against any thing whereby it moves, that is only *Mechanical* motion in the thing so moved, otherwise motion is not by knocking or crowding, but by *vital* transposing of parts, as is most manifest in *Fluids*, the parts not gravitating one against another, but being jointly and freely moved by that *vital Principle*, which we call the *Hylarchick Spirit* of the world.⁵⁹

Strictly speaking, in the light of the role that spiritual forces had to play in establishing the cohesion of atoms into compound bodies, it would appear that the mechanical laws of motion might *still* not be sufficient to explain their interaction fully, even just in those occasional, accidental cases. Perhaps a purely mechanical interaction might just be possible between a pair of individual atoms, one striking against the other, because the integrity of each atom would be entirely assured by its essential indiscernibility. But, when it came to compound bodies, it would seem that a spiritual influence was going to need to get involved in even so unremarkable an event as one stone's striking against another, in order to ensure that the various component parts of the stones should retain their collective integrity rather than dispersing randomly into disjointed dust. Nevertheless, if we can take that cohesion for granted, More felt that *some* physical phenomena would indeed then obey mechanical laws of nature. It might well be possible to calculate precisely how motion would be communicated between two colliding stones, by plugging quantitative measures of their mechanical properties into mathematically-expressed laws. However, more often than not—and more and more, as More's career progressed—those laws would be suspended, and no such calculations could be reliably made: 'there is a *Principle* in the World that does tug so stoutly and resolutely against the *Mechanick* Laws of *Matter*, and that forcibly resists or nulls one common Law of Nature, for the more reasonable exercise of another'.⁶⁰

Now, as I have noted, a mechanical system of physics in no way rules out an underlying metaphysical structure of immaterial vital influences. That compatibility is clearly demonstrated (each in their own way) by both Leibniz and the occasionalists. By contrast, a *non-mechanical* physics does positively *require* a spiritualist metaphysics of some kind or other—a 'corporeo-spiritual' one at the very least—in order for those phenomena that could not be explained mechanically to be explained at all. The vital principle (or principles) in question might occasionally allow bodies to communicate motion into one another (or communicate it on their behalf) in ways that can be subsumed under general laws that are mathematically expressible in purely mechanical terms. It might sometimes use certain bodies—as it might be,

⁵⁹Remarks upon Two Late Ingenious Discourses, pp. 96–97 (remark 16, upon *Difficiles Nugae*, ch. 7).

⁶⁰*An Antidote Against Atheism*, p. 46 (bk. 2, ch. 2, §13).

the Moon, or the globules of the heavenly aether—as mechanical instruments for the furtherance of its physical objectives. But, on other occasions, it will suspend those mechanical laws and instead cause the bodies to behave in these other, non-mechanical ways. As for More's views on the identity and precise nature of this spirit (or spirits), that will be the topic of the next chapter.

5 The Fate of the Mechanical Philosophy: Boyle, Newton, and Beyond

In his own time, More was by no means alone in his views about the limits of mechanism. In one form or another, notions of vital forces in the ostensibly inanimate part of the physical world, not merely underpinning but often actually violating the laws of mechanics, did still retain a fair amount of support in the mid- to late-seventeenth century.⁶¹ But they also faced some pretty formidable opposition. More's complaints against specific mechanical theories of phenomena, such as those mentioned above, were bound to invite rejoinders from the mechanists themselves. And such answers did indeed appear, penned against More by such scientific luminaries as Robert Boyle, Robert Hooke and J.C. Sturm. Although More tried to address their criticisms in the scholia he added to *Enchiridion metaphysicum* and elsewhere, one does rather feel that, in taking on the greatest natural philosophers of his age, he was quite simply outclassed.

Boyle knew More personally, and generally respected him too: but he was not best pleased with the use that More had made (in *Enchiridion metaphysicum* and elsewhere) of the results of his own hydrostatical experiments.⁶² Learning of Boyle's dissatisfaction with the way he had been representing his work, More wrote to him to explain his motivation. He apologised for inadvertently having caused Boyle offence, but he alluded to the rise of atheism and explained that he felt that Cartesianism—and mechanism in general—was directly to blame for a lot of it, and hence needed to be vigorously opposed. He referred in particular to Spinoza, who had published his *Theological-Political Treatise* the previous year:

it is not a week ago, since I saw a letter, that informed me, that *Spinosa*, a Jew first, after a Cartesian, and now an atheist, is supposed the author of *Theologico-Politicus*. I suppose, you may have seen the book. Wherefore what could I have done less, than declare my sense of the Cartesian philosophy, and vindicate myself from the imputation of so fond a blindness, as not to be aware of the danger of that philosophy, if it be credited; and, which is best of all, to put it quite out of credit, in that sense I oppose it, by demonstrating the great weakness thereof, in its pretences of solving, though but the easiest and simplest phaenomena, merely mechanically? which, I think, I have done irrefutably, nay, I am unspeakably

⁶¹ See Hunter 1950.

⁶² On the debate between More and Boyle, see Greene 1962; Shapin and Schaffer 1985, pp. 207–224 and passim; Hall 1990b, pp. 181–195; Henry 1990; Jenkins 2000; Crocker 2003, pp. 157–162; Hutton 2004, pp. 133–137.

confident of it: and have therewithal ever and anon plainly demonstrated the necessity of incorporeal beings; which is a design, than which nothing can be more seasonable in this age: wherein the notion of a spirit is hooted at by so many for nonsense.⁶³

More was just one among many philosophers and theologians at the time who were worried that the mechanical philosophy was threatening to undermine religion. As John Aubrey memorably put it, writing of Edward Davenant: 'I remember when I was a young Oxford Scholar, that he could not endure to heare of the *New* (Cartesian) *Philosophy*: For, sayd he, if a new Philosophy is brought-in, a new Divinity will shortly follow; and he was right.'⁶⁴

And yet Boyle was every bit as committed to the interests of the Christian religion as More himself ever was; and he was absolutely satisfied that the universe displayed the wise contrivance of a providential designer. Nevertheless, he still felt that the phenomena could be explained mechanically:

For though I do as freely and heartily, as the Doctor himself, (who, I dare say, does it very sincerely,) admit or rather assert an Incorporeal Being that made and governs the world; yet all that I have endeavour'd to do in the Explication of what happens among Inanimate Bodies, is to shew, that, supposing the World to have been at first made and to be continually preserv'd by Gods divine Power and Wisdome; and supposing his General concourse to the maintenance of the Laws he has established in it, the Phaenomena, I strive to explicate, may be solv'd Mechanically, that is, by the Mechanical affections of Matter; without recourse to Natures abhorrence of a *Vacuum*, to Substantial Forms, or to other Incorporeal Creatures.⁶⁵

Indeed, Boyle felt that few things could better demonstrate the wisdom of God than the universality, the simplicity and the intelligibility of those mechanical laws themselves. And, in this, he did actually agree with the More who had written *An Antidote Against Atheism* in 1653.⁶⁶ But not with the More who started criticising his (Boyle's) own contributions to mechanical physics in the 1660s and 1670s.

Boyle no doubt recognised More for what he was, in the world of natural philosophers: a mere dilettante. More might have known an awful lot about theology, and he might even have been a highly acute metaphysician, but here he was simply out of his depth. Although his interest was certainly both sincere and profound, his comprehension and his scientific sophistication were wanting: 'tis not necessary,' as Boyle observed, 'that a great Scholar should be a good Hydrostatician.'⁶⁷ Boyle was unmoved by More's objections to his own treatment of his hydrostatical experiments, and he remained satisfied that he could adequately explain their results in terms of the primary qualities of the bodies involved and the divinely instituted mechanical laws of motion. And he was anxious that More's work might threaten to undermine his own, as readers came to associate his own solid and serious work in

⁶³Boyle 2001, vol. 4, p. 232 (More to Boyle, 4 December 1671).

⁶⁴Aubrey 1950, p. 83 (article on Edward Davenant).

⁶⁵Boyle 1999–2000, vol. 7, p. 159 (*An Hydrostatical Discourse*, The Second Section, ch. 1).

⁶⁶See *An Antidote Against Atheism*, pp. 39–40 (bk. 2, ch. 1, §6)—as already quoted above, in §2 of the present chapter, p. 286.

⁶⁷Boyle 1999–2000, vol. 7, p. 184 (*An Hydrostatical Discourse*, The Second Section, ch. 5).

hydrostatics with More's more fanciful speculations. Accordingly, Boyle wrote *An Hydrostatical Discourse occasion'd by some Objections of Dr. Henry More* (1672) with a view to putting some clear water between his own work and that of More, whilst also endeavouring further to confirm his results and their mechanical interpretations with additional experiments. As he explained in the epistle to the reader:

this Consideration would not perhaps have engaged me to write the following Preface, if the Objections I was to answer had not been, by a Person of so much Fame, propos'd, with so much confidence; and though with very great Civility to me, yet with such endeavours to make my Opinions appear not only untrue, but irrational and absurd, that I fear'd his discourse, if unanswer'd, might pass for unanswerable, especially among those Learned men, who, not being vers'd in Hydrostaticks, would be apt to take his Authority and his Confidence for cogent Arguments; and who (not observing how liberal some men are of titles to the Arguments that please them) would make a scruple of thinking, that what is with great solemnity deliver'd for a Demonstration in a Book of Metaphysicks, can be other than a Metaphysical Demonstration. The Care therefore, that what I judge to be true, should not be made to pass for Absurd, which is a degree beyond what is meerly Erroneous, by being so severely handled by a person of Doctor *More's* fame and Learning, induc'd me to begin the following Paper.⁶⁸

Boyle's *Hydrostatical Discourse* contains little that is of directly metaphysical interest. But that was precisely Boyle's point: the proper context for such discussions should be mechanical physics, and *not* spiritualist metaphysics. While it is true that one of the most central figures in the new science did at least take More seriously enough to deem his discussion worthy of a reply, the fact remains that his reply was *in no way* supportive of More's metaphysical campaign, nor even slightly moved by his more direct criticisms of the physics itself. The mechanical philosophy had already come a long way in the quarter of a century since Descartes and, although there was still work to be done before a complete system of mechanical physics could be perfected, Boyle is just one example among many scientists during this period who remained confident that such a system really was within reach. They did not pretend that they already had the answers to everything. They accepted that there were gaps in the mechanical explanations *currently* on offer. Their support for mechanism consisted in a confidence that subsequent research would fill those gaps with explanations that were more universal in their scope, but were still mechanical for all that. Moreover, they did not agree with the later More's contention that excessive recourse to mechanism would inevitably injure piety. On the contrary, the more they discovered about the laws of nature, the more vividly they—or some of them—saw the hand of a wise designer at work. Thus, they were content to proceed with their mechanical research, and not to be swayed off-course by someone like More, who had a different agenda to their own, and who did not really know what he was talking about anyway.

But the biggest problem that More's approach faced lay in the fact that he was trying to prove a negative, that certain physical phenomena could *not* be explained

⁶⁸Boyle 1999–2000, vol. 7, pp. 141–142 (*An Hydrostatical Discourse*, To the Reader).

mechanically. More's correspondent, Henry Hyrne, identified the weakness of any such approach. Even if one accepted that More had pinpointed genuine inadequacies in the mechanical explanations that had *thus far* been devised for this or that phenomenon, this in no way entailed that there were no true mechanical explanations out there, still waiting to be discovered:

although neither Cartesius, Galileo, Hobs nor Boyl have found out y^e: true Mechanicall solutions of these Phaenomena of nature, yet it doth not follow that there are none, any more then it doth, that there was no such place as America, before Columbus discovered it. I shall not deny that these men had, & have as much wit, to invent arguments; & reason, to infer what might follow from their inventions; and therefore were & are as likely to salve the Phaenomena, as any other. But no man is omniscient: & another that is inferiour to them, being helped by their labours, may discover something that they have not. Facile est inventis addere rebus. as a dwarf upon a Gyants shoulder may see farther than the gyant himself.⁶⁹

In response, More conceded that his approach, focused as it was on certain specific mechanical theories, 'doth not amount to a perfect dry demonstration' of his conclusion against the mechanical philosophy in general, but he claimed:

it is an exceeding high probability, scarce any higher in the guidance of y^e: affaires of our life. For it seemes exceeding improbable that so excellent a Wit, the greatest Mathematician in Europe, and of such an eximious Architectonicall Genius in Mechanicks as Cartesius, should faile in y^e: solutions of so many & so plaine & simple Phaenomena as I have proved he has failed in, if y^e: presence it self of such Mechanicall solutions were not without foundation or a groundlesse presumption.⁷⁰

If not even Descartes—the 'profoundest Master of Mechanicks'⁷¹—could provide a satisfactory mechanical account of a natural phenomenon, then More was satisfied that no one else was likely to be able to do so either. Consequently, if Descartes' account turned out to be a failure, then More felt entitled to a real confidence in his own commitment to an alternative, non-mechanical account.

It should be remembered that More was a Millenarian. In his opinion, there was scant time left, for a greater natural philosopher than Descartes to step onto the scene. But, as it turned out, there was time enough. It is certainly ironic that Hyrne should have chosen to use that line about a dwarf on the shoulder of a giant. For, although the metaphor was actually pretty commonplace at the time, to most people nowadays it will connote only one man: Isaac Newton.⁷² With Newton, however, the situation does become rather more nuanced than it was with Boyle. Although Newton might have done considerably better than any of his contemporaries at saving the phenomena, he was also considerably less concerned than they were

⁶⁹Hyrne to More, August 1671, Cambridge University Library MS Gg.6.11, fols. 1r–v, printed in Gabbey 1990, p. 30.

⁷⁰More to Hyrne, 21 August 1671, Cambridge University Library MS Gg.6.11, fol. 2v, printed in Gabbey 1990, p. 31.

⁷¹*The Immortality of the Soul*, p. 217 (bk. 3, ch. 13, §3); see also op. cit., p. xii (The Preface, §11); and *Enchiridion metaphysicum*, vol. 2, p. 1 (ch. 11, §2).

⁷²On the history of the metaphor, see Merton 1965.

about sticking to purely mechanical principles alone. Better, in his view, simply to keep an open mind on such matters.

Leaving aside the occasional mention in private notebooks or letters, Newton only actually named More once in print. The reference appeared in ‘An account of the book entituled *Commercium Epistolicum*’, a paper that Newton anonymously inserted into volume 29 of the *Philosophical Transactions* in 1715, during the course of his acrimonious battle with Leibniz. That battle had originated out of a dispute over their respective claims to authorship of the calculus, but it rapidly spread into other, barely connected areas of thought. In this particular case, Newton was discussing his own position in relation to mechanism and its possible limits, and he alluded to More’s theory of the Hylarchic Principle, the universal Spirit of Nature that was supposed to take charge of the regulation of natural phenomena where mechanism fell short. On the specific question of what caused gravitational attraction, Newton rejected the manner in which his own opinions had been misrepresented by the Leibnizians:

And yet the editors of the *Acta Eruditorum*: (a) have told the world that Mr Newton denies that the cause of gravity is mechanical, and that if the spirit or agent by which electrical attraction is performed be not the aether or subtle matter of Descartes, it is less valuable than an hypothesis, and perhaps may be the hylarchic principle of Dr Henry More; and Mr Leibniz: (b) hath accused him of making gravity a natural or essential property of bodies, and an occult quality and miracle. And by this sort of raillery they are persuading the Germans that Mr Newton wants judgment, and was not able to invent the infinitesimal method.⁷³

Now, it will be observed that Newton was deliberately trying to *dissociate* himself from More’s position. However, it would be wrong to leap immediately from there to the conclusion that Newton must have disagreed with More. The continuation of this passage is crucial:

It must be allowed that these two gentlemen [i.e. Newton himself and Leibniz] differ very much in philosophy. The one proceeds upon the evidence arising from experiments and phenomena, and stops where such evidence is wanting; the other is taken up with hypotheses, and propounds them, not to be examined by experiments, but to be believed without examination. The one for want of experiments to decide the question doth not affirm whether the cause of gravity be mechanical or not mechanical: the other that it is a perpetual miracle if it be not mechanical.⁷⁴

Newton was not distancing himself from More’s theory because he was satisfied that it was false. Rather, he was distancing himself from it, and from others too, because he did not feel that he was in a position to decide whether it was true *or* false. The experimental data were inconclusive; and, in such cases, Newton preferred not to feign hypotheses at all.

Newton’s famous declaration appeared in the General Scholium that he appended to the 1713 second edition of his *Principia*. His goal in that work had been merely

⁷³Newton 2004, pp. 124–125 (‘An Account of the Book Entitled *Commercium Epistolicum*’).

⁷⁴Newton 2004, p. 125 (‘An Account of the Book Entitled *Commercium Epistolicum*’).

to establish laws that would accurately summarise the gravitational motions of bodies, working from particular observed data to mathematical generalisations. But, beyond this, he felt that he simply did not have solid grounds for any further speculation. He did not suggest a *cause* for gravitation, for the data had not revealed one to him: 'I do not feign hypotheses. For whatever is not deduced from the phenomena must be called a hypothesis; and hypotheses, whether metaphysical or physical, or based on occult qualities, or mechanical, have no place in experimental philosophy. In this experimental philosophy, propositions are deduced from the phenomena and are made general by induction.'⁷⁵ For all he knew, gravitational accelerations *might* be explicable mechanically; but, equally, they *might* be based on occult qualities, or maybe even on a universal, plastic spirit like More's Hylarchic Principle.

On the other hand, Newton did also say elsewhere in this same passage: 'I have not *yet* assigned a cause to gravity' (emphasis added). Throughout his career, he toyed with a few ideas about what might be going on behind the scenes when bodies attracted one another, even though he never firmly committed himself to any of them. He vacillated on the question of whether it might, for instance, be possible to identify an aethereal mechanism for the propagation of gravitational forces, so that attraction could then be explained in terms of an *impulse* on a body from the immediately surrounding aethereal matter. If such a theory could be constructed, and demonstrated from the phenomena, then gravitational attraction might be explicable in purely mechanical terms after all, appealing solely to the motions (and other primary qualities) of the corporeal particles, and the laws that govern the way in which such motions get communicated between bodies by impact. Even in such a mechanical universe, there would certainly still be a place for providence: Newton was absolutely convinced that this 'most elegant system of the sun, planets, and comets could not have arisen without the design and dominion of an intelligent and powerful being.'⁷⁶ But it might have been the case that, having wisely rigged up the initial conditions, and having equally wisely decided upon a set of mechanical laws of nature that would assure the preservation of order through time, God could then just sit back and leave it to develop of its own accord—at any rate, 'till this system wants a reformation'.⁷⁷

But then there were other times when Newton had his doubts about whether gravitation could be explained in terms of any aethereal mechanism at all. He did not believe in action at a distance: so, if one body was going to attract another from afar, there would need to be *something* present to each of them—and, ultimately, present to every body in the universe—to communicate the influence from one to

⁷⁵Newton 2004, p. 92/Newton 1999, p. 943 (General Scholium). Newton 1962, pp. 348–364, provides a sequence of earlier drafts of the General Scholium, which contain interesting variations.

⁷⁶Newton 2004, p. 90/Newton 1999, p. 940 (General Scholium). See also pp. 95–96 (Newton to Bentley, 10 December 1692; Newton 1959–1977, vol. 3, pp. 234–235); pp. 130, 138–139 (*Opticks*, queries 28, 31; Newton 1931, pp. 369–370, 402–404); etc.

⁷⁷Newton 2004, p. 138/Newton 1931, p. 402 (*Opticks*, query 31).

the other. And, if no material thing could be found to play this role of mediator, then it would surely need to be something immaterial. As Newton told Richard Bentley,

It is inconceivable that inanimate brute matter should, without the mediation of something else, which is not material, operate upon and affect other matter without mutual contact, as it must be, if gravitation in the sense of Epicurus, be essential and inherent in it. And this is one reason why I desired you would not ascribe innate gravity to me. That gravity should be innate, inherent, and essential to matter, so that one body may act upon another at a distance through a vacuum without the mediation of any thing else, by and through which their action or force may be conveyed from one to another, is to me so great an absurdity, that I believe no man who has in philosophical matters a competent faculty of thinking can ever fall into it. Gravity must be caused by an agent acting constantly according to certain laws; but whether this agent be material or immaterial, I have left to the consideration of my readers.⁷⁸

If no material mediator could be found, then, what sort of immaterial being might Newton have had in mind? For More—as will be discussed in the next chapter—this would be a universal but *created* Spirit of Nature. Newton, by contrast, seems to have inclined more to the opinion that it might be God himself.

In the queries to the *Opticks*, Newton observed that ‘the oldest and most celebrated Philosophers of Greece and Phoenicia’ had tacitly attributed gravitation to ‘some other cause than dense matter.’⁷⁹ Quoting this passage, Kargon remarks: ‘This willingness on the part of Newton to suggest the possibility of non-mechanical causes, probably derived from his early interest in the philosophy of Henry More.’⁸⁰ And there may be some truth in this. The reference to Phoenicia (where the legendary school of ‘Moschus’ was supposed to have been based) is certainly redolent of both More and Cudworth. Newton was every bit as keen as they were on the (occasionally rather fanciful) notions of *prisca sapientia*. Indeed, it has even been suggested that this was actually the area where Newton’s attitudes and opinions came closest to those of the Cambridge Platonists.⁸¹ But then, in a remark recorded by David Gregory in 1705—around the same time as those queries—Newton went further than simply gesturing at ‘some other cause than dense matter’. To what cause, more precisely, did the ancients assign gravity? According to Gregory’s report: ‘He believes that they reckoned God the Cause of it, nothing els.’⁸²

As for Bentley, he never actually did ascribe innate gravity to Newton. But he had also not explicitly dissociated Newton from a view he attributed (in his 1692 Boyle Lectures) to his own unnamed adversaries, ‘that Matter hath inherently and essentially such an internal Energy, whereby it incessantly tends to unite itself to all other Matter’. However, this was a view that Bentley was intent on refuting, his own opinion being: ‘That universal Gravitation, a Thing certainly existent in Nature, is above all Mechanism and material Causes, and procedes from a higher Principle, a Divine

⁷⁸Newton 2004, pp. 102–103/Newton 1959–1977, vol. 3, pp. 253–254 (Newton to Bentley, 25 February 1692/3). See also p. 100/p. 240 (Newton to Bentley, 17 January 1692/3).

⁷⁹Newton 2004, pp. 129–130/Newton 1931, p. 369 (*Opticks*, query 28).

⁸⁰Kargon 1966, p. 136.

⁸¹See McGuire and Rattansi 1966, together with McGuire 1977 and Casini 1984, on Newton, the Cambridge Platonists, and *prisca sapientia*.

⁸²Hiscock 1937, p. 30.

Energy and Impression.’⁸³ As A. Rupert Hall has justly observed in relation to the Newtonian position: ‘Matter, force and consequently motion are as much divine as mechanical, and vice versa. I do not know whether Newton at any stage considered himself to be reconciling the spiritualism of More with the mechanism of Descartes, but this seems to be in effect what he did. “Force” is a new category of ontology, one that could not be claimed for his own camp either by the one or the other.’⁸⁴

So much for phenomena on a cosmic scale: what about the interactions of particles at the microscopic level, and, in particular, the cohesion of atoms into compound bodies? Just as in the gravitational case, Newton sat on the fence when it came to cohesion and other phenomena at the atomic level. He did not yet have the requisite evidence to support any particular hypothesis, and consequently he declined to feign any. But he was certainly sensitive to the problem:

Have not the small particles of bodies certain powers, virtues, or forces, by which they act at a distance, not only upon the rays of light for reflecting, refracting, and inflecting them, but also upon one another for producing a great part of the phenomena of nature? For it’s well known, that bodies act upon one another by the attractions of gravity, magnetism, and electricity; and these instances show the tenor and course of nature, and make it not improbable but that there may be more attractive powers than these. Nature is very consonant and conformable to her self. How these attractions may be performed, I do not here consider. What I call attraction may be performed by impulse, or by some other means unknown to me. I use that word here to signify only in general any force by which bodies tend towards one another, whatsoever be the cause.... The parts of all homogeneal hard bodies which fully touch one another, stick together very strongly. And for explaining how this may be, some have invented hooked atoms, which is begging the question; and others tell us that bodies are glued together by rest, that is, by an occult quality, or rather by nothing; and others, that they stick together by conspiring motions, that is, by relative rest amongst themselves. I [would] rather infer from their cohesion that their particles attract one another by some force, which in immediate contact is exceeding strong, at small distances performs the chymical operations above mentioned, and reaches not far from the particles with any sensible effect.⁸⁵

At this juncture, it is worth just mentioning a work by one of Newton’s disciples, namely Bryan Robinson’s *A Dissertation on the Aether of Sir Isaac Newton* (1743). Robinson (1680–1754) had been considerably less reticent than Newton himself, in firmly committing himself to a mechanical account of gravitation, based on a ubiquitous aether as the medium through which gravitational influences would be propagated. But then, in Robinson’s own ‘General Scholium’, he revealed that his system was not purely mechanical after all:

Having shewn how the *AEther* causes a great Part of the Phaenomena of Nature, it may be ask’d whence this general material Cause has its great Activity and Power. For since its particles, do not touch, and yet repel one another with great Force, there must be some

⁸³Bentley 1739, pp. 68, 72 (sermon 7, 7 November 1692). See also p. 33 (sermon 4, 6 June 1692).

⁸⁴Hall 1990b, p. 253. On these issues, see McGuire 1968 (throughout, but especially pp. 162–164); Henry 1994.

⁸⁵Newton 2004, p. 132/Newton 1931, pp. 375–376, 388–389 (*Opticks*, query 31). The brackets are the editor’s. For what it is worth, Locke was also sensitive to the problem of corpuscular cohesion: see Locke 1975, p. 310 (bk. 2, ch. 23, §26).

Cause interceding the Particles, which gives them this repulsive Power. This Cause must be either Matter or Spirit, there being nothing in the Universe, which we know of, besides these two. But this Cause cannot be Matter; for Matter is in its own Nature inert, and has not any Activity in itself; and consequently, cannot communicate any Power to the *AEther*. And therefore the Cause, which gives the *AEther* its Activity and Power, must be Spirit... And therefore, as there is every where *AEther*, there must be every where Spirit, in every Part of infinite Space. And the *AEther* being one and the same in all Parts of Space, as we may conclude it to be from Light, being the same every where; the Spirit which gives it Activity, and executes its Laws, must be one and the same Spirit every where present in all Parts of Space.⁸⁶

Even if gravitational phenomena at a macroscopic level did not directly require the postulation of any immaterial influences, Robinson believed that attractions or repulsions among microscopic particles, particles that *did not touch* one another, could only be explained in terms of a ubiquitous spirit.⁸⁷

Back to Newton, he returned to the issue of corpuscular cohesion, alongside other microscopic phenomena, in a tantalising paragraph at the very end of his General Scholium:

A few things could now be added concerning a certain very subtle spirit pervading gross bodies and lying hidden in them; by its force and actions, the particles of bodies attract one another at very small distances and cohere when they become contiguous; and electrical bodies act at greater distances, repelling as well as attracting neighboring corpuscles; and light is emitted, reflected, refracted, inflected, and heats bodies; and all sensation is excited, and the limbs of animals move at command of the will, namely, by the vibrations of this spirit being propagated through the solid fibres of the nerves from the external organs of the senses to the brain and from the brain into the muscles. But these things cannot be explained in a few words; furthermore, there is not a sufficient number of experiments to determine and demonstrate accurately the laws governing the actions of this spirit.⁸⁸

Now, whereas More explained phenomena like these in terms of the influence of his Spirit of Nature, it must not be assumed that Newton was here using the term ‘spirit’ as More tended to do in his mature works, to refer to a genuinely immaterial substance. If anything, it seems more closely to resemble the ‘animal spirits’ that were standardly regarded as channelling impulses along the nerve fibres: a fine and subtle matter, to be sure, but matter nonetheless. And Newton did nothing to rule out the possibility that these electrical forces might be explicable in purely mechanical terms. In contrast to Robinson’s, his tone is characteristically agnostic.

But take a look at the phenomena that Newton was listing here: atomic bonding, repulsion and attraction due to static electricity, the propagation of light and heat, and the transmission of neurological impulses through the body. Our own contemporary scientists do not explain *any* of these phenomena—nor gravitation itself, for that matter—in mechanical terms. For, as much as Newton *himself* might

⁸⁶Robinson 1743, pp. 122–124 (‘General Scholium’).

⁸⁷As it happens, Bryan (or ‘Brian’) Robinson, just like Thomas Robinson before him, had studied at More’s own Christ’s College. Unlike his namesake, however, this Robinson’s time there did not overlap with More’s: he was not admitted until 1698/9, more than a decade after More’s death. (Venn and Venn 1922–1927, vol. 3, p. 468b).

⁸⁸Newton 2004, p. 93/Newton 1999, pp. 943–944 (General Scholium).

have been committed to the impossibility of unmediated action at a distance, his own work was the very thing that sounded the death-knell for mechanical physics in its pure, seventeenth-century form, and opened the door to fields of force.⁸⁹

Already in 1693, as his letters to Bentley show, Newton had been worried that he might be read as implying that gravity was essential and inherent to matter.⁹⁰ But then, in 1713, Roger Cotes added a new preface to the *Principia*—a preface that, apparently, Newton did not even so much as read before it was printed⁹¹—wherein Cotes suggested that gravity should be regarded as just another primary quality of bodies, on a par with the others. ‘Among the primary qualities of all bodies universally,’ he wrote, ‘either gravity will have a place, or extension, mobility, and impenetrability will not. And the nature of things either will be correctly explained by the gravity of bodies or will not be correctly explained by the extension, mobility, and impenetrability of bodies.’⁹² But the mechanical philosophy had traditionally rested on those *other* qualities alone: extension (encompassing size and shape), mobility and impenetrability. If there were some phenomena that could not be explained until gravity got *added* to this list, that fact straightforwardly entailed that those phenomena were not mechanical in the classical sense of the term. It was into this same 1713 edition of the *Principia* that Newton inserted his General Scholium, with its refusal to feign hypotheses. But that came right at the very end of the book, whereas Cotes’s preface came at the very beginning. One cannot help but wonder how many readers must have learnt from Cotes that gravity was to be treated as an additional primary quality of bodies, but then—daunted, perhaps, by all the scary mathematics—would have put the book aside before they ever arrived at Newton’s own more agnostic assessment of the situation. It would not be long before folks like Isaac Watts would come along, who would regard Newton’s work as offering a *refutation* of the principle of no action at a distance:

’Tis time, I think, that this Axiom or Maxim [i.e. *Nihil agit in distans*] should be now exploded by Men of Learning, since the Philosophy of Sir *Isaac Newton* has prevailed in the World. We find in his System, the Sun and Planets, which are at prodigious Distances, act upon each other by an attractive Force, which is called the *Law of Gravitation*; which Force is incessantly influencing all Parts of Matter to act upon all other Parts of Matter in their

⁸⁹John Henry has persuasively argued that a widely prevailing view among historians of science, that Newton allowed ‘occult qualities’ to creep back into natural science where his immediate predecessors had attempted to do away with them, is not actually correct. But his objection is not that Newton’s work did not suggest the involvement of active forces in natural phenomena. Rather, he argues that comparable active forces were *already there* to be found in the systems of Charleton, Power, Boyle, Hooke, Hale and most of the rest of the other prime exponents of the so-called mechanical philosophy. See Henry 1986b. Also see McGuire 1968 on occult forces in relation to Newton specifically.

⁹⁰Newton 2004, pp. 100, 102–104/Newton 1959–1977, vol. 3, pp. 240, 253–255 (Newton to Bentley, 17 January and 25 February 1692/3).

⁹¹Hall 1996, pp. 317, 363–365. But also see Henry 1994, pp. 139–141.

⁹²Newton 2004, p. 50/Newton 1999, p. 392 (Cotes’s Preface).

Proportions, be they never so distant. But what is this Force of Attraction or Gravitation, but a powerful Appointment of the Creator?⁹³

As time went by, scientists became more and more comfortable with the notion of force fields; and, much as Newton had predicted, the range of forces countenanced by physicists did indeed expand beyond gravity and perhaps some rather vague electrical force. Cohesion and other interactions between microscopic particles of various different kinds are nowadays explained in terms of the strong and weak nuclear forces, alongside electro-magnetism. Light, radiated heat and electricity, including the electrical impulses in neurons, are also understood in terms of electro-magnetism. As for gravity, as things currently stand in the early twenty-first century, it is still unclear precisely how that is supposed to relate to those other three fundamental forces. But, whenever somebody does finally manage to come up with a satisfactory theory of quantum gravity, it is safe to assume that the terms in which it is drawn up are going to be utterly unlike anything that the seventeenth-century mechanical philosophers would have recognised. Although the meaning of the *word* 'mechanics' might have evolved with the science itself, the fact remains that a world of super-strings, vibrating in ten dimensions at the Planck length, could scarcely be more remote from the crude, billiard-ball world of the seventeenth century. Current physics is informed by a conceptual scheme that can *in no way* be reduced to mere size, shape and motion.

Now, it is very true that current physicists also do not countenance anything even close to More's positive conception of the Spirit of Nature. But then, the purpose of the present chapter (as opposed to the next one) has not been to explore that positive theory. It has been merely to explore the negative side of More's position, namely his contention that the mechanical properties of size, shape and motion are not up to the task of explaining natural phenomena, even physically, let alone metaphysically. It is also very true that this negative side of More's argument, his opposition to the billiard-ball mechanics of his age, cannot be regarded as having actually been *instrumental* in ushering in the shift away from that view in the scientific community at large. Nevertheless, with respect to the mere *fact* of that opposition, More was vindicated by the subsequent course of scientific history.

⁹³Watts 1742, p. 153 (essay 4, §3). This remark appears in the context of a discussion of the spatial presence of spirits: Watts was entirely comfortable with the position that More dubbed 'nullibism', and he was here arguing that, since action at a distance was unproblematic in the corporeal case, the activity of spirits on spatial things should not require them to be present with their patients either.

Chapter 9

The Spirit of Nature

1 Background

If there are spiritual forces at work in the natural world, whether to stand in for mechanical explanations where the latter fall short, or to supplement them even where they are forthcoming, then what might the bearers of these powers be like? We already saw a partial answer to this question in Chap. 7, with More's notion of how bodies might possess a stupefied form of life of their own, and thereby qualify as being in some sense 'corporeo-spiritual' rather than purely corporeal. But, as we also saw in that chapter, More did subsequently move away from that early opinion; and, as we will see in the present chapter, it was not quite the end of the story even while he was still embracing it.

To place More's views on nature in general, and on the hylarchic Spirit of Nature in particular, in context, it will be worth first saying a few words about their Platonic background. The Platonists and the Neoplatonists certainly had not felt drawn to mechanism—to the extent that such an approach to nature was even on their radar—and they would in any case have objected that any such physical explanations failed to penetrate to the more fundamental metaphysical level. Instead, they tended to populate their universe with vital 'reason-principles' and 'seminal forms' (*rationes seminales; logoi spermatikoi*), in conjunction with an all-pervading soul of the world (*anima mundi*). Such animating principles, whether so many individual seminal forms or just one single world-soul, were supposed to be very much lower than the intelligible realm of God or The Forms, but they were nevertheless produced as images thereof, providentially rigged up to operate spiritually in accordance with the dictates of pure Mind. Thus Plato himself, for instance, would write of God that, 'when he was framing the universe, he put intelligence in soul, and soul in body, that he might be the creator of a work which was by nature fairest and best. On this wise, using the language of probability, we may say that the world came into being—a

living creature truly endowed with soul and intelligence by the providence of God.’¹ Such notions would recur throughout the Neoplatonic tradition, as well as helping to inform Stoicism and several other traditions besides.²

In Plotinus, for instance, one first finds the triad of The One, Mind and Soul, but then the hierarchy of emanations just carries on going, down towards matter. Beneath that initial triad, as Plotinus put it, ‘the celestial Soul—and our souls with it—springs directly next from the Creator, while the animal life of this earth is produced by an image which goes forth from that celestial Soul and may be said to flow downwards from it.’³ Or, again, he claimed that, first, there are minds equipped with the kind of reason that ‘is concerned with judgment’; and, beneath these, another phase possessing sensation; and then, beneath that, ‘a lowest power of the Soul, a nearest to earth, and this is interwoven throughout the entire universe’.⁴ That lowest power was definitely not to be equated with Soul-with-a-capital-S, the third hypostasis of the divine triad itself; and the souls of individuals were not to be regarded as so many component parts of that pure Soul either, which was utterly simple.⁵ But they were radiated images of Soul, conditioned by Mind: ‘what we know as Nature is a Soul, offspring of a yet earlier Soul of more powerful life’.⁶ Plotinus described this Nature as a mere communicator, which lacked imagination, perception and consciousness of the things on which it operated. ‘Nature, thus, does not know, it merely produces.’⁷ On the other hand, despite being devoid of reason and conscious representation as it carried out the work of the higher hypostases by applying form to matter, it nevertheless acted as an immaterial unmoved mover whose ‘productivity cannot depend upon mechanical operation’.⁸

Plotinus treated Nature as such as being just one single, all-pervasive world-soul, interwoven throughout the entire cosmos. On the other hand, when it came to the animating principles of this or that individual living thing, Plotinus did treat *those* as so many distinct individuals. If there had *just* been one universal soul of the cosmos, causing absolutely everything that happened in the world, he argued, our freedom would be stripped away and everything would be left subject to the most rigid necessity. It was therefore crucial to postulate ‘not merely the Soul of the Universe but, accompanying it, the Soul of the individual’.⁹ Or again, in the course of a discussion of the origins of evil in the natural world, Plotinus explained that a conflict of part against part arose out of the fact that the complete unitary Life did not ‘give itself whole and all-including to its subject’, but rather its unity in subjects

¹ Plato 1963, p. 1163 (*Timaeus*, 30b).

² See Curry 1968, ch. 2.

³ Plotinus 1992, p. 95 (enn. 2, tr. 1, ch. 5).

⁴ Plotinus 1992, p. 103 (enn. 2, tr. 2, ch. 3).

⁵ Plotinus 1992, pp. 297–300 (enn. 4, tr. 3, chs. 1, 2).

⁶ Plotinus 1992, p. 275 (enn. 3, tr. 8, ch. 4).

⁷ Plotinus 1992, p. 342 (enn. 4, tr. 4, ch. 13).

⁸ Plotinus 1992, pp. 273–274 (enn. 3, tr. 8, chs. 1, 2).

⁹ Plotinus 1992, pp. 178–179 (enn. 3, tr. 1, chs. 7, 8), here p. 179 (ch. 8).

‘can be that only of a sum-total, not of a thing undivided’.¹⁰ Soul, despite being repugnant to division insofar as it stood as a hypostasis in the intelligible realm, ‘has yet a nature lending itself to divisional existence: its division is secession, entry into body’.¹¹ (Though, even there, it did still retain some trace of indivisibility. As I discussed in the first section of Chap. 5 above (p. 143), each individual soul would dwell indivisibly whole in the whole of its body and whole in each part thereof.¹² As so many radii emanating from a common centre, the souls of distinct individuals were ‘simultaneously one and many, participant in the nature “which becomes divided among bodies”, but at the same time a unity by virtue of belonging to that order which “suffers no division”’.¹³).

Ficino also postulated a soul of the world, much as Plotinus had done, and he too took care to distinguish this from the triune God from whence it originated. On occasion, Ficino seemed to suggest that all of the various seminal reason-principles of this or that individual were collectively contained in this single, universal world-soul. Thus, he would write in *The Book of Life*: ‘The soul of the world, the *anima mundi*, divinely contains at least as many seminal reasons for things as there are ideas in the divine mind, and with these reasons it fabricates as many species in matter.’¹⁴ But another passage, a couple of pages later, refines this claim by limiting its scope. There, Ficino was careful to distinguish between the ‘special forms and powers of the lower bodies’, and the ‘singular gifts’ of individual people. The former were alone to be produced by the *anima mundi*, while the latter were to be produced by *their own* souls.¹⁵ Ficino’s opinion was very firmly that the rational soul of a human being—that rationality itself being merely one faculty, inseparably united to the other powers of the same soul—did indeed need to be treated as something individual in its own right, distinct from all other such souls. Earlier in the Middle Ages, and inspired by what Ficino regarded as a corrupt Arabic translation of Aristotle,¹⁶ Averroes had taken up the notion of a single, universal soul of the world, but he had notoriously extended that notion by suggesting that, when such a principle entered a human body, it would manifest itself as that person’s intellectual mind. But Ficino criticised this suggestion at length—Book 15 of his *Platonic Theology* is devoted to the topic—and instead stressed the distinctness of our intellects, both from one another and from the universal soul of the world. That world-soul was, indeed, not intellectual at all, and its proper domain of activity lay instead in purely vegetative, natural processes.

The sensitive souls of the beasts were also distinguished from this single world-soul, as were the souls that drove the various celestial spheres in their revolutions: ‘in first place is the single world soul; in second, the twelve souls of the twelve

¹⁰ Plotinus 1992, p. 196 (enn. 3, tr. 2, ch. 16).

¹¹ Plotinus 1992, p. 292 (enn. 4, tr. 1, ch. 1).

¹² Plotinus 1992, pp. 292–296 (enn. 4, trs. 1, 2).

¹³ Plotinus 1992, p. 419 (enn. 4, tr. 9, ch. 2).

¹⁴ Ficino 1980, p. 87 (bk. 3, ch. 1).

¹⁵ Ficino 1980, p. 89 (bk. 3, ch. 1).

¹⁶ Ficino 2001–2006, vol. 5, p. 163 (bk. 15, ch. 14).

spheres; and in third, the many souls which are contained in the individual spheres'.¹⁷ When it came to plants, however, Ficino was more reluctant to endow them with individual seminal forms of their own, distinct from the world-soul. Unlike the behaviour of animals, the purely vegetative activity of plants (and that of minerals too, for that matter) *was* to be collectively referred to the common influence of the soul of the Earth: 'Many animals exist on the earth that have their own souls distinct from the common soul of the earth. For they move locally as the earth does not; they remain alive even when they are not in contact with the earth, which stones and plants (deriving life as they do from the soul of the earth, not from their own soul) do not do.'¹⁸

But the soul of the Earth did *also* have a key role to play for animals, even though they additionally possessed individual souls of their own. The role of this world-soul lay in the initial formation of the natural organic bodies to which those sensitive souls could then—but only then—become united. Even in the case of human beings, the world-soul would be operative in first preparing their bodies, so as to render those bodies fit to enter into such a union with the individual human souls themselves:

generation's terminus towards which it is directed is an ensouled being compounded from soul and body; while the terminus from which it issues is likewise nature, or almost so, nature meaning here not only a particular nature but also universal nature in whose power a particular nature prepares a body for a soul. But universal nature is called a particular power or instrument of the World-Soul. Thus in the *Philebus* Plato declared, "If the world were to lack a soul, whence would we have [souls] ourselves?" It is not because the soul in itself is from the World-Soul, but because it is in the body through the work of the Soul.¹⁹

But then Ficino also postulated a further principle, standing in between this universal world-soul and the corporeal world as such. In much the same way as the physiologists of the time countenanced tenuous 'animal spirits', which served as intermediaries between the grosser body and the more eminently immaterial soul of an individual person or animal, to energise and to direct the former in its performance of the work of the latter, so likewise did Ficino postulate a universal *spirit* of the world, to act as a go-between between the soul of the world and its manifest body.²⁰ He identified this spirit of the world with the Arabs' Elixir, and with the Aristotelians' quintessential aether, and he wrote that it 'is indeed a body that is extremely thin, almost no body at all, and almost, in fact, a soul. In the same way, it is almost no soul, and almost, in fact, a body.'²¹

¹⁷ Ficino 2001–2006, vol. 1, p. 295 (bk. 4, ch. 1). And see *passim*, throughout Book 4 (pp. 249–313).

¹⁸ Ficino 2001–2006, vol. 1, p. 265 (bk. 4, ch. 1). See p. 253, on the role of the soul of the Earth in producing vines (not to mention flies) according to their rational principles, in matter that had first been duly prepared by that same soul. Also see p. 283, on its role in animating the elements.

¹⁹ Ficino 2001–2006, vol. 6, pp. 95, 97 (bk. 18, ch. 3). The brackets are the translator's; and the Plato reference is to *Philebus* 30a (Plato 1963, p. 1107).

²⁰ Ficino 1980, p. 94 (bk. 3, ch. 3).

²¹ Ficino 1980, p. 95 (bk. 3, ch. 3).

2 *Psyche, Physis, the Mundane Spright, and the Spirit of the World*

There is a great deal here that would come to find itself echoed in More's own writings. However, here as elsewhere, More's opinions seem to have evolved over the course of his career. Let us begin by looking at his first published philosophical statement, 1642's *Psychodia Platonica*.

The 'Ogdoas' of these verses should be fairly familiar by now. But, just to recap: at the top of this eight-fold hierarchy of reality were *Ahad* ('*Nature Monadical*'; The One for the Platonists; the Father for Christians); *Aeon* (eternity; '*Life Intellectual*'); pure Mind for the Platonists; the Word for Christians), and *Psyche* ('*Psychicall*' life; the Platonic Soul; the Christian Holy Spirit). Down at the bottom, meanwhile, *Hyle* was understood as first matter or pure potentiality; while *Tasis* was the extension of actual corporeal matter, containing all 'fading forms *Quantitative*'. In between these two extremes, the remaining three levels were *Semele*, *Arachne* and *Physis*, representing '*Imaginative*', '*Sensitive*', and '*Spermaticall*' life respectively.²² Notwithstanding the fact that More preferred to characterise *Semele* in terms of 'imagination', as opposed to 'reason' or 'intellect' as one might perhaps have expected, these three levels do still match up with the three principal orders of particular created spirits in his later works. More was elsewhere careful to draw a contrast between the intellect and what he now called 'lower phansie' or 'phantasie', maintaining that the latter, along with sensation, depended on the body, but that the former did not.²³ And he made it clear that it was the former, as opposed to imagination in this corporeal sense, that was the distinguishing characteristic of human souls:

Self-moving substance, that be th' definition
Of souls, that 'longs to them in generall:
This well expresseth that common condition
Of every vitall centre creaturall.
For why? Both what hight form *spermaticall*
Hath here a share, as also that we term
Soul sensitive, I'll call't form bestiall,
It makes a beast added to plantall sperm;
Adde rationall form, it makes a man, as men affirm.²⁴

A seminal (or 'spermatical') form was supposed to stimulate the body of a plant to grow and to develop vegetatively, in accordance with a plan that had been programmed into it by God but of which it had no conscious awareness. The soul of a beast, besides unconsciously displaying such a vegetative power in the regulation of the functions of the internal organs of its own body, would also be endowed with

²² *The Complete Poems*, p. 54a (*Psychathanasia*, bk. 1, cant. 3, st. 23).

²³ See especially *The Complete Poems*, pp. 106a, 107a, 107b (*Antipsychopannychia*, cant. 1, sts. 25, 35, 38).

²⁴ *The Complete Poems*, p. 48b (*Psychathanasia*, bk. 1, cant. 2, st. 25). For a fuller discussion, see the remainder of this canto.

a capacity for outward sensation, giving it a passive but nevertheless conscious awareness of its environment. A human soul would have all of this, but it would additionally be able to think freely for itself, to plan out intelligent responses to sensed events, and even to achieve some conception of God and other insensible things. (More, while acknowledging that ‘the humane race doth vaunt’ reason as proper to itself, declined to settle the question of whether the dog, the horse, the ape and the elephant might also ‘claim their share’ therein. He felt that it was better to distinguish man from the beasts by reference not to reason but rather to man’s moral character, and specifically to the innocence that Adam had lost for us.²⁵ More’s views on the differences between man and the beasts will be explored in the following, final chapter).

More argued in his poems that a human soul had three ‘centres’,²⁶ explaining that the term ‘centre’ in this sense signified ‘the depth, or inmost Being of any thing, from whence its Acts and Energies flow forth’.²⁷ The soul thus had three different essences, or at least three aspects to its essence; and, flowing from this, it had three different modes of operation: ‘Three centres hath mans soul in Unity / Together joynd; or if you will, but one. / Those three are one, with a Triplicity / Of power or rayes.’²⁸ The highest powers were peculiar to the human soul (and just possibly to some beasts), while it shared the two lower powers with the beasts, and the lowest with both beasts and plants. ‘The lower man’, as More put it, ‘is nought but a fair plant.’²⁹ Thus, although Physis or spermatical life would most clearly present itself in plants, as a matter of fact all other created souls would also include an element of Physis in their lower, vegetative functions. More enumerated some of the various beings that were collectively ‘portrayed’ in Physis, and his list freely lumped together plants (the oak, the ash, the aspen, etc.), animals (the buzzard, the buck, the butterfly, etc.), and men.³⁰ Indeed, he included stars and planets in this too.³¹ Every one of these living beings was animated, at least partially, by its own individual share in the plastic, vegetative life.

²⁵ *The Complete Poems*, pp. 47b–48a (*Psychathanasia*, bk. 1, cant. 2, sts. 17–18).

²⁶ *The Complete Poems*, pp. 67a, 67b, 70a–71a, 150a–b (*Psychathanasia*, bk. 3, cant. 1, sts. 8–9, 14; cant. 2, sts. 3–7; notes upon *Psychathanasia*, bk. 3, cant. 1, st. 14).

²⁷ *The Complete Poems*, p. 160a (The Interpretation General: ‘Centre, Centrall, Centrality’).

²⁸ *The Complete Poems*, p. 67b (*Psychathanasia*, bk. 3, cant. 1, st. 14).

²⁹ *The Complete Poems*, p. 58a (*Psychathanasia*, bk. 2, cant. 1, st. 9); and see pp. 67b–68a (bk. 3, cant. 1, sts. 15–17) on the role of this lowest faculty of the soul in shaping the body. That theory of the triplicity of the human soul had itself been drawn from the Platonic tradition. Plato had constructed a theory along broadly similar lines, arguing not only that there were three souls in man, but even that these were seated in three different, descending parts of his body—the head, the chest and the abdomen. See Plato 1963, pp. 677–678, 683–684, 1193, 1199, etc. (*Republic*, 435b–436b, 440e–441e; *Timaeus*, 69d–70a, 77b–c). The basic idea would become a commonplace among the subsequent Platonists and Neoplatonists; and More himself elsewhere used deliberately Platonic terms to explain these three natures of the human soul, in his posthumous *Discourses on Several Texts of Scripture*, pp. 187–190 (discourse 6).

³⁰ *The Complete Poems*, p. 17a (*Psychozoia*, cant. 1, sts. 41–42).

³¹ See *The Complete Poems*, pp. 139b, 160b (notes upon *Psychozoia*, cant. 1, st. 41; The Interpretation General: ‘Cuspis of the Cone’), etc.

However, it is important—in the light of his later opinions—to appreciate that More did *not* regard Physis as comprising just one single, simple world-soul. Rather, each of these living beings had a particular soul of its own, distinct from that which animated another distinct being, and these various souls *collectively* constituted Physis. More described the particular soul of an individual as an ‘efflux’ from Psyche, as a ‘beam... of th’ Intellectual Sun’, and again as a ‘spark or ray of the Divinity / Clouded in earthy fogs, yclad in clay’.³² But these various rays, notwithstanding their intimate dependence on the source from which they emanated, were all supposed to be distinct from one another. Just like Ficino, More would also write at length (in *Antimonopsychia*, the fourth part of *Psychodia Platonica*) against the Averroistic doctrine of the unity of all intellectual souls, concluding instead that God must have provided each of his creatures with ‘a *self-centrall* essence’ of its own.³³ But, having also concluded that the three faculties of a human soul, intellectual, sensitive and plastic, were together joined in unity, this distinctness could not *only* apply to man’s intellect. By transitivity, one man’s purely ‘plantal centre’ would itself need to be distinct from that of another man. Moreover, this was not only true of the vegetative faculties of those higher souls that were lucky enough to possess other additional faculties besides these. It also applied in the case of the stars and planets, each of which had *its own* proper ‘centrall spright’³⁴—‘spright’ here simply meaning ‘spirit’, and ‘centrall’ signifying the essence of a thing and the root of its energies. Likewise, as far as the animation of plant bodies was concerned, More was happy to express himself plurally when referring to the ‘forms *Spermaticall*, / That best be seen in shaping armèd trees’, and to ‘their fixt *Centreities*, / By which they fairly every part extend’.³⁵ It was, after all, standard Neoplatonism to maintain that the hierarchy of emanations from The One diminished sequentially as they fell away from that source, not only in reality and goodness, but also in unity. In this most faithfully Neoplatonic phase of More’s career, if he was going to be postulating a plurality of intellectual souls, then it is only to be expected that he should have wished to postulate a still greater plurality of seminal forms. In a 1647 note, elucidating the claim that ‘[e]ach life a severall ray is from that Sphear / That Sphear doth every life in it contain’, he was careful to explain that his position should be understood ‘[n]ot as if there were so many souls joynd together, and made one soul, but there is a participation of the virtue at least of all the life that is in the universall Orb of life.’³⁶

³² *The Complete Poems*, pp. 140b, 21a, 119a respectively (notes upon *Psychozoia*, cant. 1, st. 59; *Psychozoia*, cant. 2, st. 22; *The Praeexistency of the Soul*, st. 3).

³³ *The Complete Poems*, p. 132a (*Antimonopsychia*, st. 20). See the whole poem, and also the briefer discussion of the Averroistic theory in *The Immortality of the Soul*, pp. 226, 233–235 (bk. 3, ch. 14, §5; ch. 16, §§1–7).

³⁴ *The Complete Poems*, p. 79b (*Psychathanasia*, bk. 3, cant. 3, sts. 34–35).

³⁵ *The Complete Poems*, p. 48b (*Psychathanasia*, bk. 1, cant. 2, st. 27).

³⁶ *The Complete Poems*, pp. 21a, 143a (*Psychozoia*, cant. 2, st. 23, and the note thereto).

But, although More did not identify Physis (Nature) with Psyche (Soul)—for the latter definitely *was* supposed to be just one simple hypostasis—he nevertheless felt that a special relationship existed between them, which consisted in the fact that Physis was operating in the physical world at the behest of Psyche. He did believe that Psyche was intimately present—totally and at once everywhere—in the physical world. Instead of remaining an aloof and remote, transcendent hypostasis, Psyche *clothed* herself in the extended, corporeal world, as a lady might drape herself in a stole: ‘Great *Psyche* men and Angels dear delight, / Invested in her stole aethereall, / Which though so high it be, down to the earth doth fall.’³⁷ We already saw some discussion of this notion of Psyche’s aethereal stole in Chap. 3, when we examined the position that More developed in *Democritus Platonissans*. According to the system of that 1646 poem—which was still broadly grounded in the 1642 system, even though it introduced several novel elements to it—the corporeal world was constituted by an infinite array of quasi-vital atoms, or cuspidal particles of the Cone. Psyche’s role was to take the point at the Cone’s apex, to multiply it and to lay the resulting atoms out in a three-dimensional juxtaposition. Psyche would thus be directly responsible for the generation of Tasis out of Hyle, i.e. the extraction of an actual bulk out of a state of mere potency, and she would then clothe herself in the perfectly homogeneous matter that she had thus produced. Tasis would constitute ‘*Psyche’s* out-array’, as More was already expressing himself in 1642.³⁸

We see a recurrence of the same scheme in 1653’s *Conjectura Cabbalistica*, as More laid out what he took to be the esoteric and symbolical philosophical meaning of the opening portion of the book of Genesis. Now expressing himself in his own voice, and no longer dressing things up in the poetic, Neoplatonic language of ‘Ahad’, ‘Aeon’ and ‘Psyche’, he adopted the more orthodox Christian terms of ‘Father’, ‘Son’ and ‘Holy Spirit’. But, as far as the production of actual corporeal matter out of Hyle was concerned, this was still referred most directly to the third of these Persons. The author of Genesis—Moses, as far as More was concerned—had written: ‘In the beginning God created the heaven and the earth. And the earth was without form, and void: and darkness was upon the face of the deep. And the Spirit of God moved upon the face of the waters’, etc. More offered the following interpretation:

By *Heaven* or *Light* you are to understand, *The whole comprehension of Intellectual Spirits*, Souls of men and beasts, and the Seminal Forms of all thing, which you may call, if you please, *The World of Life*. By *Earth* you are to understand, the *Potentiality* or *Capability* of the *Existence of the outward Creation*.... The *Tri-une* God therefore, by his Eternal Wisdom, first created this Symbolical *Heaven* and *Earth*.

And this *Earth* was nothing but Solitude and Emptiness, and it was a deep bottomless Capacity of being whatever God thought good to make out of it, that implied no contradiction to be made. And there being a possibility of creating things after sundry and manifold manners, nothing was yet determined, but this vast Capability of things was unsettled, fluid, and, of it self, undeterminable as *Water*: But the *Spirit of God*, who was the *Vehicle* of the *Eternal Wisdom*, and of the *Super-essential Goodness*, by a swift forecast of Counsel and

³⁷ *The Complete Poems*, p. 16b (*Psychozoia*, cant. 1, st. 39).

³⁸ *The Complete Poems*, p. 20b (*Psychozoia*, cant. 2, st. 13).

Discourse of Reason truly Divine, such as at once strikes through all things, and discerns what is best to be done, having hover'd awhile over all the Capacities of this fluid Possibility, forthwith settled upon what was the most perfect and exact....

And God thought again, and invigorating his thought with his Will and Power, created an immense deal of real and corporeal *Matter*, a Substance which you must conceive to lie betwixt the foresaid *fluid possibility of Natural things*, and the Region of *Seminal Forms*; not that these things are disgtinguish'd Locally, but according to a more intellectual Order.³⁹

There are several points worth noting in this passage. First, we can isolate allusions to no fewer than six of the eight levels of More's former Ogdoas. The 'Triune God' corresponded to the triad at the top of the hierarchy, of Ahad (or Atove—here, 'super-essential goodness'), Aeon ('Eternal Wisdom') and Psyche ('the Spirit of God'). At the bottom, the 'fluid possibility' of creation was the same thing as the Hyle of the poems. Indeed, although More, after the period of those poems, did abandon the other names that he had been using for the levels of the Ogdoas, this one name, 'Hyle', was retained, and it cropped up repeatedly in *Conjectura Cabbalistica* in precisely this context. Above Hyle, the 'real and corporeal matter' that got drawn out from this state of potentiality was the Tasis of the poems, and it nestled in between Hyle on the one side and the 'region of seminal forms' or 'World of Life' on the other—that is to say, Physis.

Just as it had been Psyche herself who (guiding her activity in accordance with the eternal forms that were subsumed into Aeon) had been presented in the poems as producing Tasis out of Hyle, by multiplying the cuspidal particles of the Cone with a view to donning the resulting matter as a stole, so too was it here said to be the 'Spirit of God' who likewise drew physical matter out of potentiality, acting as the vehicle of God's eternal Wisdom. Elsewhere, More made it absolutely explicit just who this 'Spirit of God' was supposed to be. It was 'Not a *great Wind*, but the *Holy Ghost*.... This *Spirit of God* then, or *Divine Love*, which was from everlasting, will prove the Third divine *Hypostasis*.'⁴⁰ It *had* to be God's own spirit, because nothing else preceded the creation of real things except for (uncreated) God on the one hand and (unreal) Hyle on the other. God produced the world of created spirits concurrently with his production of physical matter; and, until they had actually been created, they were not yet in a position to do anything at all. Consequently, More could not give created spirits any role to play in that initial creation of physical matter.

Psyche or the Holy Ghost did still have a little bit more to do, before it could hand the responsibility for shaping corporeal things over to created spirits. We already touched briefly, in the first section of Chap. 7 (pp. 241–242 above), on More's theory of the 'vital congruity' between body and soul. It was simply in the nature of a soul that it should animate a corporeal vehicle: but only some parcels of matter, ones that were organised in certain ways, were fit to be thus animated. So God would first need to 'prepare' the matter for the entry of various orders of souls and seminal forms from Physis or the World of Life.

³⁹ *Conjectura Cabbalistica*, pp. 11–12 (*The Philosophick Cabbala*, ch. 1, §§1, 2, 6).

⁴⁰ *Conjectura Cabbalistica*, pp. 74–75 (*The Defence of the Philosophick Cabbala*, upon ch. 1, vers. 2).

Having first multiplied and juxtaposed the cuspidal particles of the Cone to produce a homogeneous expanse of as-yet wholly disconnected atoms, God would then ‘coagulate or cruddle’ this physical Hyle into a universal aether.⁴¹ This aether was still sublimely fluid but, to the extent that it could be distinguished into the microscopic particles of Descartes’ first and second elements, it did have a structure to set it apart from a *mere* abyss of physical monads. When presenting this version of his theory of Hyle in the 1662 Appendix to *Conjectura Cabbalistica*, More identified the production and juxtaposition of the physical monads themselves as the work of the first day, the coagulation of these into the heavenly aether as the work of the second, and the further conspissation of such particles into the terrestrial matter of Descartes’ third element as the work of the third.⁴² And God might do a little more preparatory work over the subsequent days too, to establish the vital congruities that were appropriate to creatures of various different orders. As More had already explained in the original 1653 text,

God prepared the Matter of the Earth so, as that there was a *Vital Congruity* of the parts thereof with sundry sorts of Seminal Forms of Trees, Herbs, and choicest kinds of Flowers; and so the Body of the Earth drew in sundry principles of *Plantal Life* from the *World of Life*, that is at hand every where: and the *Passive* and *Active* Principle thus put together, made up the *Third* day’s work, and the *Ternary* denotes the nature thereof.... But this *Fourth Day* comprehends the garnishing of the body of the *whole* World, *viz.* that vast and immense *Aethereal* matter, which is called the *fluid Heaven*, with infinite numbers of sundry sorts of Lights, Suns and Planets, which God’s Wisdom and Power, by union of fit and active principles, drawn from *the World of Life*, made of this *Aethereal* matter.... [On the fifth day,] God, by his *Inward Word* and *Power*, prepared the Matter in the waters, and near the waters, with several *Vital congruities*, so that it drew in sundry Souls from *the World of Life*, which, actuating the parts of the Matter, caus’d great plenty of Fish to swim in the Waters, and Fowls to fly above the earth in the open Air.... [And on the sixth,] after he had prepared the Matter fit for so noble a guest as an humane Soul, *the World of Life* was forced to let go what the rightly-prepared Matter so justly call’d for: and Man appeared upon the stage of the Earth, Lord of all living creatures.⁴³

But God’s preparatory work would only be *just enough* to give the individual spirits of the World of Life something to work with. As soon as the matter was ready to meet a created spirit in a mutual partnership of vital congruity, God would then step back and hand over the responsibility for any *further* formation of the matter to a spirit of the appropriate kind. Or, in the terms of the poems, once Psyche had first fashioned a stole for herself, she would then hand over the immediate responsibility for any subsequent alterations in this garment to Physis, and also partly to Arachne and Semele. The actions of these three projections of life would certainly conform to the natures and plans of Ahad, Aeon and Psyche: but it would be the former that were actually doing the donkey work in shaping the universe. And Arachne and Semele, for their part, would not do very much, because they would only manifest themselves in the higher forms of life, which were few and far between in comparison

⁴¹ *Conjectura Cabbalistica*, p. 190 (*Appendix to the Defence of the Philosophick Cabbala*, ch. 9, §4).

⁴² *Conjectura Cabbalistica*, p. 193 (*Appendix to the Defence of the Philosophick Cabbala*, ch. 10, §3). See also pp. 190–191 (ch. 9, §§2–4)

⁴³ *Conjectura Cabbalistica*, pp. 13–15 (*The Philosophick Cabbala*, ch. 1, §§13, 14, 20, 26).

to the purely vegetative entities of plastic, formative Nature. The furthest reaching activity in the world would be that of Physis.

As already noted, the work of Physis was not even limited to the formation of human, animal and plant bodies: Physis was also responsible for concentrating the universal aether in certain regions to produce stars and planets, thereby decorating Psyche's stole with its ornamental 'knots'.⁴⁴ Thus, More enumerated the things that Physis would produce out of the multiplied Cuspis of the Cone as follows: 'of these are the Sunne and all the Planets, they being kned together, and fixt by the centrall power of each Planet and Sunne. The volatile AEther is also the same, and all the bodies of Plants, Beasts and Men.'⁴⁵ In *The Interpretation Generall* definition of 'Spermatieall', More first explained that, although this formative power—the defining characteristic of Physis—belonged most properly to plants, it was also transferred to the plastic power that governed the purely formative and vegetative processes within animal bodies. But then he added that he enlarged it on the other side too, to cover 'all magnetick power whatsoever that doth immediately rule and actuate any body'.⁴⁶ Psyche, then, could still be construed as the Soul of the universe and as the 'fountain of this evolved life',⁴⁷ and (together with the other two hypostases of the triad) as the *ultimate* cause of all changes in the world. But she would not be their *immediate* cause. Instead, she would produce an agent to do the more drudging work on her behalf, and this agent (as far as purely vegetative phenomena were concerned) was Physis. Physis was the 'great womb' of the universe, through which Psyche would impart the 'gentle warmth' of life into the physical world in which she clad herself.⁴⁸

More summarised this conception of Physis as Psyche's proxy in an important passage from 1647, which is worth quoting at some length:

Physis is nothing else but the vegetable World, the Universall comprehension of Spermatieall life dispersed throughout. This seminall World is neither the very Intellect it self, though it be stored with all forms, nor any kind of pure soul, though depending on both, *oion eklampsis ex amphoin nou, kai psuchēs*, A kind of life radiating and resulting both from Intellect and *Psyche*.

This enters and raiseth up into life and beauty, the whole corporeall world, orders the lowest projection of life, *viz.* the reall Cuspis of the Cone infinitely multiplied, awaking that immense mist of Atoms into severall energies, into fiery, watery and earthly; and placing her Magick attractive points, sucks hither and hither to every centre a due proportion, and rightly disposed number of those Cuspidal particles, knedding them into Suns, Moons, Earths, &c. and then with a more curious artifice, the particular Archei frame out in every one such inhabitants and ornaments, as the divine Understanding hath thought fit. For *Physis* (as I said) is not the divine Understanding it self, but is as if you should conceive, an Artificers imagination separate from the Artificer, and left alone to work by it self without animadversion.

⁴⁴ *The Complete Poems*, pp. 92a, 140a (*Democritus Platonissans*, sts. 12–13; notes upon *Psychozoia*, cant. 1, st. 55).

⁴⁵ *The Complete Poems*, p. 160b (*The Interpretation Generall*: 'Cuspis of the Cone').

⁴⁶ *The Complete Poems*, pp. 164b–165a (*The Interpretation Generall*: 'Spermatieall'). On this notion of the 'magnetic' power of a plastic, spermatie spirit, see also op. cit., pp. 48b, 78b (*Psychathanasia*, bk. 1, cant. 2, sts. 25–27; bk. 3, cant. 3, st. 28).

⁴⁷ *The Complete Poems*, p. 136a (notes upon *Psychozoia*, cant. 1, st. 1).

⁴⁸ *The Complete Poems*, p. 20b (*Psychozoia*, cant. 2, st. 13).

Hence *Physis* or Nature is sometimes puzzled and bungles in ill disposed matter, because its power is not absolute and omnipotent. See *Plot. Ennead. 3. lib. 2.*⁴⁹

Such, then, was the role of *Physis*. *Psyche* would use *Physis* as an agent through which to act vicariously on the matter of the universe. *Physis* would have no knowledge of what it did, nor any freedom to choose to do something else instead—and consequently it would bungle its work from time to time—but it had been pre-programmed to decorate *Psyche*'s stole in the most perfect manner that it could manage. The paradigm of its activity would be displayed in the work it did within the vegetable kingdom, but its effects would equally be discernible in the plastic, formative powers of higher forms of life on the one side, and, on the other side, in the formation and evolution of at least some ostensibly inanimate bodies too, such as stars and planets. Being absolutely omnipotent, God certainly *could* have done everything directly by himself if he had so chosen: but there was no need for him to do so. An alternative strategy was for him to act directly only in the initial production of matter and spirit, and then to sit back and allow his creatures to act upon one another. More's opinion was that it better suited God to take the latter course. Having first produced seminal forms, and having wisely programmed certain propensities into them, to act in orderly ways, those seminal forms would then proceed to serve as the immediate agents in the production of complex bodies out of the matter that God had prepared for them.⁵⁰

More's scheme, then, owed much to the Neoplatonic tradition of Plotinus, Ficino, et al. He regarded *Physis* or the World of Life as comprising a plurality of vegetative principles, spiritual but created, endowed with plastic powers to form and thereafter to govern living bodies, including both entire planets and—separately—the various individual organisms that populated these. However, the notion that the World of Life comprised many distinct individuals did not automatically rule out the possibility that, besides all of those particular seminal forms, each with its own circumscribed area of responsibility, there might *additionally* have been one whose domain was truly universal. As we have already noted and as we will be examining more fully shortly, More would come to postulate a 'Spirit of Nature' which, although it played a role comparable to that of the particular seminal form of a single individual, was indeed supposed to be universal. It was a world-soul not merely in the sense of being a soul for *our* world, i.e. this particular planet Earth, but a single plastic soul for the entire cosmos. And this too would connect More to that same Neoplatonic tradition (not to mention Stoicism and other traditions besides). But what is not so clear is that More, in this early period of his career, was inclined to postulate any such thing.⁵¹ There are a couple of indications that he might have done: but one of

⁴⁹ *The Complete Poems*, p. 139b (notes upon *Psychozoia*, cant. 1, st. 41).

⁵⁰ See also *Conjectura Cabbalistica*, pp. 16–17 (*The Philosophick Cabbala*, ch. 2, §4).

⁵¹ Although there is an explicit reference to the 'Universal Spirit of Nature' in *Conjectura Cabbalistica*, the passage in question—together with its telltale marginal references to 1659's *Immortality of the Soul* and to the 1662 Appendix to *Conjectura Cabbalistica* itself—had not been present in 1653, but was added in the 1662 edition. Compare *Conjectura Cabbalistica*, pp. 76–78, with *Conjectura Cabbalistica* (1653 edition), pp. 145–146 (*The Defence of the Philosophick Cabbala*, upon ch. 1, vers. 6).

them, when examined more closely, turns out to be something of a red herring; and the other, although harder to dismiss out of hand, ultimately rests on just one or two isolated comments, scant evidence upon which to base any firm conclusion.

First, More alluded in various places throughout the poems to an all-pervading ‘mundane spright’ (literally, ‘spirit of the world’): I will be citing some such remarks in just a moment. And More does seem to have regarded this spirit as something genuinely universal: but what is not so clear is whether he regarded it as something genuinely immaterial (as he definitely did conceive the Spirit of Nature to be in his mature period). Did the mundane spright belong to Physis, in amongst the various individual vegetative spirits that were included therein; or did it belong to Tasis, as just another kind of body? Admittedly, and as we have seen, More’s early metaphysics was a gradual monism without sharp cut-off points to separate the various adjacent levels of the Ogdoas; so perhaps we should not expect a clear, unambiguous answer to this question. But, all in all, the mundane spright does seem more at home in Tasis than in Physis. For let us recall Ficino’s distinction between the *soul* of the world on the one hand and the *spirit* of the world on the other. The former was certainly immaterial; but the latter was supposed to be not quite a body and yet not quite a spirit either. And it was this latter, Ficino’s corporeo-spiritual spirit of the world *as opposed to* his soul of the world, that More’s mundane spright seems more closely to resemble (thus, once again, locating him firmly within this same Neoplatonic tradition). For, after all, *everything* in Tasis was corporeo-spiritual anyway, so that character certainly would not preclude the inclusion of this mundane spright therein. I would contend that More’s so-called mundane spright is to be construed as a corporeal spirit, tenuous and subtle indeed, but nevertheless not to be placed in the World of Life alongside the various more eminently immaterial souls and seminal forms that collectively constituted Physis.

This interpretation is borne out by the way More himself described the mundane spright. In *The Interpretation Generall*, he defined it as ‘that which is the spirit of the world, or Universe. I mean by it not an Intellectuall spirit, but a fine unfixt, attenuate, subtile, ethereall substance, the immediate vehicle of plasticall or sensitive life.’⁵² Note that, quite aside from its not being an intellectual spirit, More was not even calling it a plastical or sensitive life. Rather, it was the *vehicle* of such life, ‘vehicle’ being the term that More would elsewhere be using to describe the aerial or aethereal structures to which the souls of angels (or, for that matter, departed human souls) would unite themselves. Indeed, More was here explicitly describing the mundane spright as an *aethereal* substance. The aether was, for More, an extremely fine and subtle corporeal substance, far more sublime than a gross, terrestrial body: but it was a corporeal substance nevertheless, emphatically not identical with a soul despite being united to one.

In *Conjectura Cabbalistica*, as we have already seen, More was inclined to distinguish the aether (made on the second day) from the utterly homogeneous abyss of physical monads (made on the first), on the grounds that the former was at

⁵² *The Complete Poems*, p. 163a (*The Interpretation Generall*: ‘Mundane’).

least distinguishable into the Cartesian first and second elements. In the poems, however, he drew no such distinction. (After all, at least when he was writing the first batch of these poems, he had never even read Descartes, so how could he be expected to know about the structure of the aether?). More was there content to use terms like ‘aether’, ‘mundane spright’, ‘central Tasis’ and others interchangeably. In *Democritus Platonissans*, for instance, More wrote of God that

He from the last projection of light
Ycleep’d *Shamayim*, which is liquid fire
(It *AEther* eke and centrall *Tasis* hight)
Hath made each shining globe and clumperd mire
Of dimmer Orbs.⁵³

Which is to say: God has made the shining stars and the congealed mire of the dimmer planets out of the last projection of light, which is called ‘shamayim’ and is liquid fire, and which is also called ‘aether’ and ‘central Tasis’. The term ‘shamayim’ was the Hebrew word for ‘heavens’, as used in the Hebrew text of the first verse of Genesis, ‘In the beginning God created the heaven and the earth’.⁵⁴ The same term also crops up in the entry for ‘Quantitative’ in *The Interpretation General*, where More would again identify it with ‘the centre of *Tasis*, viz. the multiplication of the reall Cuspis of the Cone’ and with ‘that immense diffusion of atoms’, writing of ‘this, *shamayim* that is, liquid fire, which Psyche sends out’ that it ‘is the outmost, last, and lowest operation from her self.’⁵⁵ A star was, for More, a concentrated accumulation of aether, manifesting its intrinsic activity through the light and heat that it emitted. But More elsewhere also explicitly described, in so many words, a star as being a *part* of the mundane spirit: ‘a starre, part of the *Mundane* spright’, he wrote in *Antipsychopannychia*.⁵⁶

Some parts of this aethereal spirit might be conspissated or congealed into terrestrial matter, while other parts would be left unfixd and retain their more sublime state. And the various seminal forms that constituted Physis would blend such terrestrial matter *and* aethereal matter together, each to produce an organic structure appropriate to its own specific needs. ‘This spirit of life’, wrote More, ‘is in each shapen’d thing, / Suck’d in and changèd and strangely confound, / As we conceive: This is the nourishing / Of all; but *spermall* form, the certain shapening.’⁵⁷ What the

⁵³ *The Complete Poems*, p. 92a (*Democritus Platonissans*, st. 11).

⁵⁴ Alexander Jacob has read this stanza of *Democritus Platonissans* as containing traces of the Lurianic Cabbala, thereby insinuating, contrary to the general consensus, that More was already familiar with that system some decades before he actually came into contact with it through van Helmont and Knorr von Rosenroth. This is because Jacob conflates More’s use of the Biblical Hebrew term ‘shamayim’ with the Cabbalistical notion of ‘tsimtsum’, the withdrawal of the divine nature to leave a void space wherein the world might be formed. (See the editor’s introduction to *Enchiridion metaphysicum*—i.e. *Manual of Metaphysics*, 1995 edition—vol. 1, p. xxxvi). The two concepts are unrelated.

⁵⁵ *The Complete Poems*, p. 164a (*The Interpretation General*: ‘Quantitative’).

⁵⁶ *The Complete Poems*, p. 112a (*Antipsychopannychia*, bk. 3, st. 1).

⁵⁷ *The Complete Poems*, p. 58a (*Psychathanasia*, bk. 2, cant. 1, st. 9).

mundane spirit of life provided was a fuel that assisted the seminal form in its work on the object. The corporeo-spiritual aether possessed an energy of its own, but the activity of some distinct vegetative principle was necessary in order that this energy might be channelled in an appropriate manner.

And this aethereal spirit really did pervade the entire universe. Here and there, a certain quantity of it would manifest itself as a star, the very epitome of a concentrated centre of energy. But, in fact, not only stars but ‘every body hath its part’ in this mundane spright.⁵⁸ When another quantity of it was intermingled with the bulkier particles of a gross body, it would manifest itself as the animal spirits contained in the blood, nerves and muscles of the organism in question, and it would help to shape and to animate the body by serving as the immediate vehicle and instrument of that creature’s more eminently spiritual soul. The mundane spright was especially involved in those operations of the embodied soul that resulted directly out of the union of both body and soul together, precisely because this corporeo-spiritual spirit was the very thing that facilitated such a union, by serving as an intermediary between the gross, terrestrial body and the genuinely incorporeal soul. In several places, More explained sensation, memory and lower fancy directly in terms of the mundane spirit. ‘We know this world,’ he wrote, ‘because our soul hath made / Our bodie of this sensible worlds spright / And body.’⁵⁹

But then, even if we can dissociate More’s references to the mundane spright from his later discussions of the Spirit of Nature, on the grounds that the latter was supposed to be strictly immaterial while the former was at best corporeo-spiritual, there is another notion in these early works that does seem to rather have more affinity with that later concept. At one point in *Conjectura Cabbalistica*, when More was discussing how matter first needed to be ‘prepared’, to establish the kind of vital congruity that would attract an appropriate seminal form into it from the World of Life, he happened to mention a certain ‘Spirit of the World’. The passage reads as follows:

But yet there went up a moist Vapour from the Earth, which being matured and concocted by *the Spirit of the World*, which is very active in the Heavens or Air, became a precious *balmy liquor*, and fit *vehicle of Life*, which, descending down in some sort like dewy showers upon the face of the Earth, moistned the ground; so that the warmth of the Sun gently playing upon the surface thereof, prepared matter variously for sundry sorts, not only of Seminal forms of *Plants*, but *Souls of Animals* also.

And *Man* himself rose out of the Earth after this manner; the dust thereof being rightly prepared and attempered by these unctuous showers and balmy droppings of Heaven. For God had so contriv’d, by his infinite Wisdom, that Matter thus or thus prepar’d should, by a *Vital congruity*, attract proportional Forms from *the World of Life*, which is every where nigh at hand, and does very throughly inequitate the moist and unctuous Air.⁶⁰

⁵⁸ *The Complete Poems*, p. 140a (notes upon Psychozoia, cant. 1, st. 59).

⁵⁹ *The Complete Poems*, p. 68a (*Psychathanasia*, bk. 3, cant. 1, st. 18). The topic is discussed quite extensively in this and the next canto—see especially p. 74a (cant. 2, st. 44)—and More would subsequently return to it in the first canto of *Antipsychopannychia*.

⁶⁰ *Conjectura Cabbalistica*, p. 17 (*The Philosophick Cabbala*, ch. 2, §§6–7). I have here corrected the text of the 1712 edition, which reads ‘Sensual forms’ where the 1653 and 1662 editions both say ‘Seminal forms’, and the 1679 Latin has ‘*Seminalium Formarum*’. See also *The Complete Poems*, pp. 70b–71a (*Psychathanasia*, bk. 3, cant. 2, st. 7; and passim in this canto).

The ‘moist vapour’ that became a ‘fit vehicle of life’ seems to have coincided with the aethereal mundane spright of the poems, which had itself been getting described as a vehicle of life. But the so-called Spirit of the World was not here being equated with that balmy liquor. Rather, it was the thing that was doing the job of maturing and concocting it.

From this passage alone, it is far from clear just what *this* Spirit of the World was actually supposed to be. Given what More had been saying, just a couple of pages earlier, about the role that the *Holy* Spirit had been playing in preparing the matter for the entry of an individual seminal form, one might be inclined to equate it with that. This would make it genuinely universal, unlike the seminal form that governed merely our own planet; *and* it would make it genuinely immaterial, unlike the aethereal mundane spright of the poems: but it would also make it divine, and consequently still unlike the created Spirit of Nature of More’s later works.

However, a few pages earlier, there is another passage that seems to suggest an alternative interpretation. There, More had been discussing how the heaven and the earth that were said to have been produced on the first day signified the World of Life on the one hand, i.e. the whole comprehension of souls and seminal forms, and the mere possibility of corporeal creation on the other. On the second day, he continued, God lifted the matter out of potentiality into actuality, but it was initially still just a homogeneous ocean of disconnected atoms. But then More wrote: ‘Wherefore *this Matter* was actuated and agitated forthwith in the very creation thereof by that hand that made it, and was guided and moderated by some *Universal Spirit*, yet part of *the World of Life*, whence it became very subtile and *Aethereal*; so that *this Matter* was rightly called *Heaven*.’⁶¹ Now, the first clause is clearly still referring to God himself (‘that hand that made it’): but the important bit is the second clause. By identifying this universal spirit as a part of the World of Life, as he had just defined that, More was both treating it as genuinely immaterial *and* distinguishing it from God. And yet he was also explicitly describing it as *universal*. The term ‘world’ might be ambiguous between the universe as a whole and merely our own planet: but More has chosen on this occasion to use the more unequivocal term ‘universal’.

And yet this is the *only* remark that I can find, in any of More’s works up to this date, that even comes close to postulating a single spirit that is both genuinely universal and genuinely immaterial, while also being created. Such a notion simply does not appear in most of his writings of this period, where he was content to make do with a multiplicity of *particular* seminal forms, alongside God’s own immediate activity in the initial preparation of individual vehicles fit for these to shape and thereafter to animate. Indeed, there is no obvious reason why More could not have done that here too, by giving God the job of ‘guiding and moderating’ the matter as well as that of ‘actuating and agitating’ it. In any case, even if we allow that this passage demonstrates that a universal plastic spirit was already present in More’s early system, what is very clear is that it was taking a back seat to all of the other components of

⁶¹ *Conjectura Cabbalistica*, p. 13 (*The Philosophick Cabbala*, ch. 1, §8).

the World of Life. More's *emphasis* was very much on the multiplicity of distinct seminal forms of individual plants, planets and other bodies. In More's later works, by contrast, an unequivocally universal, immaterial and created plastic spirit would take centre stage. Indeed, it would be pushed so firmly into the spotlight that it would actually begin to elbow some of the other seminal forms out of the story altogether.

3 The Spirit of Nature and Particular Spirits

As we saw in the last chapter, More was never persuaded that *all* physical phenomena could be explained mechanically, and he came to restrict the domain of mechanism more and more as his career progressed. Quite apart from the fact that the mechanical philosophy was inadequate in providing a deep, metaphysical analysis of the nature of causation as such, More increasingly felt that it could not even get the empirical facts right. Men in Cambridge simply did not stand at angle of 52 degrees from vertical, as the mechanical laws would seem to imply that they should. More was satisfied that natural phenomena regularly displayed spontaneous deviations from what the mechanical laws dictated ought to happen; and such spontaneous motions could only possibly originate from spiritual agency. For More, this power to animate matter, by spontaneously applying motion to it, was nothing short of the central, defining attribute of a soul. But was this the agency of *one* soul, or of many? I have just argued that the Physis of the poems was to be understood not as a single, all-pervading soul, but rather as an aggregate of several distinct seminal forms. Each plant would have *its own* seminal form; and, although there would additionally be a global seminal form for our entire planet, and likewise for the other astral bodies, those too would be distinct from one another. But (leaving aside the brief passages just mentioned at the very end of the last section) what More does not seem to have postulated—and certainly did not emphasise—in his early works, whether in addition to or in place of that multitude of particular seminal forms, was a created spirit that was genuinely universal (as opposed to merely global) and genuinely immaterial (as opposed to merely corporeo-spiritual). Such a principle—the 'Spirit of Nature' or 'Hylarchic Principle' (*principium hylarchicum*)—would, however, become one of the best-known and most intensively-discussed components of his system.⁶²

More defined the Spirit of Nature in *The Immortality of the Soul* as: 'A substance incorporeal, but without Sense and Animadversion, pervading the whole Matter of the Universe, and exercising a Plastical power therein, according to the sundry predispositions and occasions in the parts it works upon, raising such *Phaenomena* in the World, by directing the parts of the Matter and their Motion, as cannot be

⁶² Among many other treatments of the Spirit of Nature in the secondary literature, one might mention Greene 1962; Boylan 1980; Henry 1990; and Hall 1990b, especially pp. 114–120.

resolved into mere Mechanical powers.’⁶³ It is true that More himself did associate his mature theory with his own juvenile theory, writing of the Spirit of Nature in 1679 that it was in fact the same as that which he had been calling ‘Physis’ in *Psychozoia*.⁶⁴ And the Spirit of Nature was indeed very similar to Physis in a great many ways, as far as its *functions* were concerned. Nevertheless, on this one point at least, they do seem to have been different. Whereas More pretty clearly seems to have conceived of Physis as a universal aggregate of so many distinct individuals, he quite emphatically characterised the Spirit of Nature as a *single*, indiscernible yet universal being.

More did not begin to unveil this theory of the Spirit of Nature until *The Immortality of the Soul* in 1659. In the Preface General to *A Collection of Several Philosophical Writings*, he placed a defence of the theory in the context of the objections that had been raised specifically against that work, rather than those raised against his earlier *An Antidote Against Atheism*.⁶⁵ It is easy to miss the fact that the theory simply was not present in the *Antidote*—and thereby to misapprehend the chronology of More’s intellectual development—when one works from the reprints of that work in the 1662 or 1712 editions of More’s *Collection of Several Philosophical Writings*. In these reprints, one will find a long section in the second chapter of Book 2, wherein More examined the spring of the air, gravitational attraction and such like, and concluded that such phenomena were ‘the Effects of the same Immaterial Principle, (call it *the Spirit of Nature*, or what you will) which is the Vicarious Power of God upon this great Automaton, the World’.⁶⁶ However—as a tell-tale reference to *The Immortality of the Soul*, contained within a work supposedly written six years before it, gives away—this passage was a new insertion into the text in 1662. It had not been there in the editions of either 1653 or 1655.⁶⁷ Those editions did not countenance any such universal immaterial principle at all, but still made do—as far as they could—with (i) mechanical communications of physical motion, and (ii) the intervention of *particular* plastic spirits wherever mechanical explanations fell short. (As a matter of fact, even when the theory did properly begin to appear in 1659, it still does not seem that More’s position was fully developed: *The Immortality of the Soul*, just like *An Antidote Against Atheism*, was also swelled three years later by new insertions on these very issues, for its own reprint in *A Collection of Several Philosophical Writings*).

⁶³ *The Immortality of the Soul*, p. 212 (bk. 3, ch. 12, §1). In a 1679 note on this definition, More would retreat to a certain agnosticism over whether it really was as devoid of sense and animadversion as he had suggested, although he did continue to insist on its lack of reason and free will. I will be coming back to this towards the end of the next section below (pp. 342–343).

⁶⁴ *Opera omnia*, vol. 2.1, p. viii (*Praefatio generalissima*, §11).

⁶⁵ *A Collection of Several Philosophical Writings*, The Preface General, pp. xii, xv–xvi (§§12, 13).

⁶⁶ *An Antidote Against Atheism*, p. 46 (bk.2, ch. 2, §13).

⁶⁷ The added passage runs from §7 to §13 (inclusive) of the enlarged text of bk. 2, ch. 2, pp. 43–46. I do not, however, accuse any specific scholars of failing to spot this, or of falling into any misapprehensions here. The contributors to Hutton 1990a, for instance, do seem to be well aware of the fact that this was a 1662 addition to the text.

For instance, More had written in the original 1653 text of *An Antidote Against Atheism* that, while some physical phenomena were ‘but the easie results of that *general Motion* communicated unto the *Matter* from God’, there were others that resulted out of ‘the *divine Art* or *Reason* (for such are the *logoi spermatikoi*, the *Rationes Seminales*) incorporated in the *Matter*’. Note that those Greek and Latin expressions are being employed in their plural forms. But then, in the 1662 edition, a marginal comment raised a question: ‘Concerning these *Rationes Seminales*, whether they be distinct, or one Common Spirit of Nature’.⁶⁸ For the answer, More referred his reader to *The Immortality of the Soul*, where he had by now firmly settled on the latter opinion.

Or again, just a few lines below this, the original text (reflecting More’s confidence in mechanism at the time) had alluded to ‘the more considerable effects of *general Motion*, in *Minerals*, *Metals*, and sundry *Meteors*, whose easie and rude shapes have no need of any particular principle of life, or *Spermatical form* distinct from the rest or motion of the particles of the *Matter*’.⁶⁹ But, in the later editions, More subtly amended this passage. First, he added a word to make the passage now say merely that these shapes *may* have no need of a spermatical form distinct from rest and motion—for, by this time, he suspected that actually they *did* need such a principle. Second, he removed the word ‘particular’: for the principle of life he now believed they needed was not particular at all, but universal. In contrast to his earlier discussions of the various vegetative principles that collectively constituted Physis, More did now make it absolutely explicit that one and the same Spirit of Nature really was supposed to pervade ‘the whole *Matter* of the Universe’, and that it ‘in a sort actuates and informs all *Bodies* whatever’.⁷⁰

As to *why* there had to be a plastic spirit that was genuinely universal, it is not entirely clear what More’s grounds were for embracing such an opinion quite as emphatically as he did. But action at a distance probably had something to do with it. Wherever More found corporeal action at a distance, without any corporeal intermediary adequate to the task of communicating the influence between agent and patient, he would insist that it would then need to be communicated spiritually; but he would also insist that this could only work if *one and the same* spirit was joined to both. And he was satisfied that the natural world was absolutely chock-a-block with such cases of spiritually-mediated action at a distance: magnetism, gravitation, etc. So far, so good. But the trouble is that virtually all of the cases that More discussed were wholly Earth-bound, and consequently a single seminal form for this one planet would have been adequate to handle them, without any requirement that its domain should spread any further out into the rest of the universe. And More had always postulated seminal forms for individual planets and stars: so why was it now necessary for him to make the leap up from the multiplicity of these into a

⁶⁸ *An Antidote Against Atheism*, p. 53 (bk. 2, ch. 5, §3, with the marginal note thereto).

⁶⁹ *An Antidote Against Atheism* (1655 edition), p. 91 (bk. 2, ch. 5, [§3]). Cf. p. 53 in the 1712 edition.

⁷⁰ *The Immortality of the Soul*, pp. 212, 216 (bk. 3, ch. 12, §1; and the note to §4). Examples of further such remarks from 1659 onwards could be multiplied ad nauseam.

single seminal form that was not merely global but universal? After all, as his anti-astrological writings make clear, he actually went to some considerable lengths in *denying* the transmission of influences between distinct astral bodies. Not only did he deny the more fanciful influences that the stars and planets were supposed to have on the destinies of individual people, but he even denied that they had, for instance, any magnetic influences here on Earth, explaining that the loadstone was not attracted by the Pole Star but simply by the magnetic field of the Earth itself.⁷¹ As for gravitation, More does not seem to have believed that the influence of a planet's gravity extended out beyond its own boundary at all. He was writing, let us remember, before Newton proposed his law of *universal* gravitation. For anyone who subscribed to an aethereal account of gravity—as More did, albeit one in which the aether was being used as an instrument for spiritual agency, rather than behaving mechanically on its own—there was no obvious reason to suppose that such aethereal effects should or even could reach beyond the vortex of the planet in question.

However, there were a couple of other cases where More did countenance genuine influences from astral bodies. As we observed in the last chapter, he continued to accept that the Moon was involved in the explanation of tidal motion, even after he came to the conclusion that it had to be understood merely as an instrument of the Spirit of Nature rather than as a true cause in its own right. More significantly—because we are now taken considerably further out into the heavens—he also allowed light and heat to be transmitted to the Earth from even the most distant astral bodies, arguing that mere mechanism could not account for, for instance, the apparent colours of the distant stars.⁷² One and the same Spirit of Nature would need to be involved all the way along the heavenly globules' journey, to regulate their motion and rotation.

But ultimately, More's main reason for embracing the theory of a single, universal Spirit of Nature seems to have stemmed from general principles of ontological parsimony, far more than from any particular physical/metaphysical considerations of this kind. In the last chapter, we saw his earlier claim, in *An Antidote Against Atheism*, that God would allow 'the Effects of the mere Mechanical motion of the Matter to go as far as they can' because 'to have altered or added any thing further, where there was no need, had been to *multiply Entities* to no purpose.'⁷³ Once More had decided that actually it was necessary to postulate spiritual influences after all, where he had formerly thought that mere mechanism might be sufficient, he was happy to do so. But he still did not want to postulate any *more* spirits than were necessary. And, as he increasingly realised, he could actually get away with considerably fewer than he had initially suspected.

In his early works, More had felt obliged to ascribe seminal forms to plants, because—unlike, say, Descartes—he could not bring himself to believe that a bunch

⁷¹ *An Explanation of the Grand Mystery of Godliness*, p. 245 (bk. 7, ch. 19, §4); and see more generally throughout chs. 18–20.

⁷² *Enchiridion metaphysicum*, vol. 2, pp. 158–159, 166 (ch. 19, §§8, 14). See also *Two Choice and Useful Treatises*, second part, pp. 197–198 (*Annotations upon the Discourse of Truth*, The Digression).

⁷³ *An Antidote Against Atheism*, pp. 37, 39–40 (bk. 2, ch. 1, table of contents and §6).

of particles, simply coming together mechanically, could ever generate so organised a structure as the body of a plant (or an animal, for that matter), or regulate its behaviour thereafter. As he put it in the Appendix to *An Antidote Against Atheism*:

But though this may seem barely possible, yet I conceive it is very improbable that such an infinite number of particles that must concur to make up a *Foetus*, should have such a particular figuring and law of Motion impress'd upon each of them, as to enable it to take its right station or posture in the structure of a living Creature. For methinks this is going about the bush, whenas the more compendious way would be to make some *Immaterial Substance*, such as are conceived to be the *Seminal Forms* of Plants and Animals, or the *Archei*, as others call them.⁷⁴

Likewise, the Sun and stars needed to be shaped by seminal forms too, in order to maintain their spherical figures where mere mechanism alone would have tended to stretch them out into oblongs.⁷⁵ And, as I have argued, More initially regarded these seminal forms as all distinct from one another. But, once he had developed a theory of a universal plastic spirit, to govern the affairs of the ostensibly inanimate realm, he found that it could actually do much of the work that had previously seemed to necessitate the postulation of so many distinct seminal forms/archei for individual plants. Not only did mechanism take a back seat to the Spirit of Nature, but so too did those seminal forms themselves. More seems increasingly to have suspected that the formation of plant bodies might have been *solely* the responsibility of the Spirit of Nature.

He defined a 'seminal form' early in *The Immortality of the Soul* as 'a created Spirit organizing duly-prepar'd Matter into life and vegetation, proper to this or the other kind of Plant', and he remarked: 'It is beyond my imagination what can be excepted against this Description, it containing nothing but what is very coherent and intelligible.'⁷⁶ More certainly did not think that there was any logical impediment to the existence of distinct, particular seminal forms of this kind: but he then went on to question whether any such forms *actually* existed. 'This is the First degree of *Particular Life* in the world', he wrote, but then added, 'if there be any purely of this degree Particular.'⁷⁷ Later on in the same work, he wrote of the Spirit of Nature that it 'may rationally be acknowledged to have a hand in the efformation of all vital Beings in the World, and haply be the only Agent in forming all manner of *Plants*'.⁷⁸

And then, a few chapters further on, he would drop the hypothetical tone of these remarks and finally make his position clear:

For this *Spirit of Nature* intermeddling with the efformation of the *Foetus* of Animals, (as I have already shewn more than once) where notwithstanding there seems not so much need, there being in them a more particular Agent for that purpose; 'tis exceeding rational that all *Plants*

⁷⁴ *An Antidote Against Atheism*, p. 216 (Appendix, ch. 11, §8).

⁷⁵ *An Antidote Against Atheism*, p. 39 (bk. 2, ch. 1, §4). This point about the shapes of the stars was in fact one of More's favourite examples of the failures of mechanism, which he brought up over and over again throughout his whole career.

⁷⁶ *The Immortality of the Soul*, p. 29 (bk. 1, ch. 8, §3).

⁷⁷ *The Immortality of the Soul*, p. 30 (bk. 1, ch. 8, §4).

⁷⁸ *The Immortality of the Soul*, p. 187 (bk. 3, ch. 6, §7).

and *Flowers* of all sorts (in which we have no argument to prove there is any particular Soul) should be the effects of this *Universal Soul of the World*. Which Hypothesis, besides that it is most reasonable in it self, according to that ordinary Axiome, *Frustra fit per plura quod fieri potest per pauciora*, is also very serviceable for the preventing many hard Problems about the *Divisibility* of the Souls of *Plants*, their *Transmutations* into other *Species*, the growing of *Slips*, and the like. For there is one Soul ready every where to pursue the advantages of prepared matter. Which is the common and only *logos spermatitēs* of all *Plantal appearances*, or of whatever other *Phaenomena* there be, greater or smaller, that exceed the pure Mechanical powers of *Matter*. We except only *Men* and *Beasts*, who having all of them the capacity of some sort of enjoyments or other, it was fit they should have particular Souls for the multiplying of the sense of those enjoyments, which the transcendent Wisdom of the Creator has contrived.⁷⁹

So animals and men did still need particular souls of their own, so that they might receive particular enjoyments individually, through their senses or the exercise of their rational faculties. But plants, which lacked all reason and even sensation, could never receive pleasures of any kind at all, so this argument for giving them *their* own souls was absent. If mechanism was insufficient to account for the formation and development of plant bodies, then they were going to need to be animated by *something* spiritual. But, once More's system included a universal Spirit of Nature that was capable of performing these plastic functions, God's purposes could be satisfied without his going to the effort of creating individual seminal forms for the plants. And the absence of a positive reason for them to have their own souls or seminal forms itself constituted a reason for them *not* to have them, in the light of that '*frustra fit*' principle from Ockham, that it is vain to do with more what can be done with less. Thus, in 1660, More straightforwardly declared that it was the Spirit of Nature that was responsible for 'shaping Vegetables into all that various Beauty we find in them'.⁸⁰ In 1683, he would write that it was the Spirit of Nature that 'frames all Vegetables into shape and growth', all by itself.⁸¹ Or, again, in a 1679 scholium to a 1655 passage on *Archei*, he wrote: 'I do not believe there are any *Archeus*'s distinct from the *Archeus* of the Universe, besides particular Souls. Which may be more properly called Souls than *Archeus*'s, which have a *Plastick* as well as *Perceptive* faculty.'⁸² Seminal forms, which had always been lower than those perceptive souls, were now all resolved into a single, universal seminal form: the Spirit of Nature or Hylarchic Principle itself.⁸³

⁷⁹ *The Immortality of the Soul*, pp. 219–220 (bk. 3, ch. 13, §7).

⁸⁰ *An Explanation of the Grand Mystery of Godliness*, p. 322 (bk. 9, ch. 2, §9).

⁸¹ *Two Choice and Useful Treatises*, second part, p. 198 (*Annotations upon the Discourse of Truth, The Digression*).

⁸² *An Antidote Against Atheism*, p. 233 (Appendix, ch. 11, §9, scholium). In the original 1655 passage to which this is the scholium, More had been sitting squarely on the fence: 'To the last puzzle propounded, whether these *Archei* be so many sprigs of the *common Soul of the World*, or particular subsistences of themselves; there is no great inconvenience in acknowledging that it may be either way' (p. 216). By 1679, he had made up his mind. Indeed, he had made it up by 1659.

⁸³ Besides More's own repeated denials of individual seminal forms in his later writings, we also have the testimony of his first biographer: '... *seminal Forms*, if there were any such, (as he did not conceive there were) of *Plants* and *Vegetables*.' (Ward 2000, p. 286).

Besides the fact that human and animal souls could receive enjoyment, there was another reason why More declined to resolve those souls into the Spirit of Nature, even as he did so for the seminal forms of plants. Throughout his career, he remained every bit as keen to distance himself from Averroism as he had been in 1642's *Antimonopsychia*. That theory, of the unity of all intellectual minds, was by no means extinct in the seventeenth century. Indeed, shortly after More's death, it was directly associated with his own theory of the Spirit of Nature by Richard Burthogge (1637/8–1705).

Burthogge developed a theory about something he opted to call the 'Mosaical Spirit', identifying this with the Spirit of God that the author of Genesis had described as moving on the face of the waters—which More, for his part, had identified with the Holy Spirit—and he used the analogy of a pipe organ to explain how this one spirit would manifest itself as various particular souls in different bodies. Just as the different physical constitutions of the organ's various pipes would cause the same air to produce a different sound in each one, so too would the Mosaical Spirit manifest itself in a variety of different ways as it simultaneously animated a variety of different human bodies.⁸⁴ Burthogge was well aware of More's theory of the Spirit of Nature, and aware too that More had been careful to distinguish this from the Holy Spirit. 'But', replied Burthogge, 'I have shewed already from the Scriptural *Hypothesis*, that it is *one* Spirit, [the *Mosaical*] that Actuates, and Acts in All, in Men and other Animals, as well as in the World of meer Nature.' His conclusion was that 'the *Principium Hylarchicum*, or Spirit of Nature (as this Learned person calls it,) is but a *Plastick Faculty*, of the *Mosaical* Spirit.'⁸⁵

But this was something that More himself would never have accepted. He simply could not conceive how one and the same mind could possibly be said both to have an idea and yet at the very same time not to have it, or to have a contradictory one—which, he felt, would be a direct consequence of this theory. From his point of view, it would not help to say that a single, universal spirit might have each of these contradictory ideas in relation to the distinct, particular bodies to which it was variously united. He did accept that the *plastic* powers that defined the Spirit of Nature involved an ineliminable reference to the matter upon which they were exercised: the whole purpose of this 'hylarchic' principle was to give shape and motion to matter, and consequently the plastic operations of one and the same universal spirit *could* be adequately differentiated by reference not to the simple spiritual agent but to its various distinct corporeal patients. But an idea was a *mental* object, ontologically bound to and fully supported by the *mind* that perceived it, without any regard to that mind's embodiment or lack thereof. An idea might well have a corporeal cause, or a corporeal object, but it did not actually *need* either in order to exist. And, if ideas did not involve any essential reference to bodies at all, then More could not understand how such a reference to bodies could be up to the task of

⁸⁴ Burthogge 1699, pp. 6–8; and passim both here and in Burthogge 1694.

⁸⁵ Burthogge 1694, p. 128 (ch. 4, §1). The brackets are Burthogge's.

explaining how this alleged universal spirit could both have and not have a certain idea. Just as he had done in *Antimonopsychia*, More continued to insist in *The Immortality of the Soul*,

it necessarily follows, that if there be *but one Soul* in the World, that Soul is both *Rational* and *Sensitive*, and that there cannot be any Pain, Pleasure, or Speculation, in *one* man's Soul, but the same would be in *all*, nay, that a man cannot lash a Dog, or spur a Horse, but himself would feel the smart of it: which is flatly against all experience, and therefore palpably false. Of this wild Supposition I have spoken so fully in my *Poems*, that I need add nothing here in this place, having sufficiently confuted it there.⁸⁶

The consequence of the Averroistic doctrine was, wrote More, that 'every *one* man will be *all* men, and *all* men but *one* Individual man: which is a perfect contradiction to all the Laws of *Metaphysicks* and *Logick*.'⁸⁷ Animal and human souls, therefore, did still need to retain their own distinct identities, even as the seminal forms of plants (as well as stars and planets) were collectively resolved into the Spirit of Nature. The multiplication of the former was *not* without necessity.

Admittedly, the option was still there for More to hand the responsibility for the purely vegetative processes in human and animal bodies over to the Spirit of Nature, while still continuing to attribute their sensitive and rational faculties to their own individual souls: but there was nothing to *motivate* such a manouevre. If humans were going to need to have distinct souls anyway, for the sake of their higher powers, then there was no good reason to resist attributing lower powers to those same souls too, and giving them a certain dominion over the regulation of the internal processes of their own bodies. With regard to those plastic functions, More did still feel that the Spirit of Nature had a role to play. But, rather than acting alone as it did in plant bodies, he felt that it would work in collaboration with the lower faculties of the animal or human souls that animated the bodies.

As a matter of fact, it was in the course of a discussion of such biological processes in *The Immortality of the Soul* that the Spirit of Nature made its very first appearance, several chapters before More actually got round to defining it and discussing its role in physical processes such as gravitation or magnetism. The apparent fact, widely accepted in More's time, that he was here seeking to explain was how a mother's imagination could cause a birthmark or 'signature' to be impressed upon the body of her unborn child. More did not believe that the plastic power of *her* soul was responsible for forming the child's body in her womb. But that responsibility could not lie (fully) with the soul of the child either, for that soul could not be united to the body in order to act on it, until there was first a body there, at least an embryonic one, with a vital congruity fit to support such a union. More's conclusion was that 'the *Spirit of Nature* is present every where, which snatched into consent by the force of the *Imagination* of the Mother, retains the Note, and will be sure to seal it on the Body of the Infant'.⁸⁸ (In his later writings,

⁸⁶ *The Immortality of the Soul*, p. 233 (bk. 3, ch. 16, §3).

⁸⁷ *The Immortality of the Soul*, p. 234 (bk. 3, ch. 16, §5). See also pp. ix–xi (The Preface, §10).

⁸⁸ *The Immortality of the Soul*, p. 188 (bk.3, ch. 6, §8). And see chs. 6–7 in full, especially §§3 and 7 of the latter (pp. 190, 192).

particularly those upon the Cabbala, More would identify his Spirit of Nature with the Jewish archangel, Sandalphon, who had traditionally been assigned a key role in foetus-formation). But then, once the foetus had been formed and subsequently ensouled, ‘what rude inchoations the *Soul of the World* has begun in the Matter of the *Foetus* [are] after completed by the presence and operation of the particular *Soul of the Infant*, which co-operates conformably to the pattern of the Soul of the World, and insists in her footsteps’.⁸⁹ In the formation of a human body, the Spirit of Nature would start the ball rolling and then the soul of the child would take over.

4 Occasionalism Versus Bungles

Considerations of ontological parsimony, then, would seem to speak in favour of a single, universal Spirit of Nature, for there was no necessity in multiplying such vegetative principles any further than this, in a way that that there *was* necessity in multiplying human and animal souls. But could More not have achieved even greater ontological parsimony if he had referred natural phenomena not to the vital influence of a *created* plastic spirit, but rather to the direct operation of God himself? In a word, could More have embraced occasionalism?

Several other seventeenth-century authors also shared More’s opinion that created plastic agency was involved in the works of nature.⁹⁰ Perhaps most notably, More’s colleague, Ralph Cudworth, set out his own theory of ‘the Plastick Life of Nature’ in a digression in the third chapter of *The True Intellectual System of the Universe*.⁹¹ Now Cudworth and More were working (marginally) before the key works of French occasionalism started to appear. Indeed, Cudworth, at least, was perfectly oblivious to that particular innovation, according to the testimony of his own daughter, Damaris Masham: ‘he (not understanding French) did not know that the modern Cartesians differed so much from their master as to hold that God was the immediate efficient cause of all the effects of nature. And the hypothesis of the plastic nature (produced by him for the acquitting from the suspicion of atheism some who held a plastic life distinct from the animal) was very far from having the Cartesians in view.’⁹² Following a defence of occasionalism in relation to Cudworth’s system, and in response to the complaints of Lady Masham, Pierre Bayle acknowledged this fact: ‘Mr Cudworth is no more concerned in this’, he wrote, ‘than almost all of the world’s philosophers, and those of England especially: for I do not believe that, among all the scholars with which that island abounds, there should be two sectarians of occasional causes.’⁹³ Nevertheless, even though Cudworth—and More

⁸⁹ Ibid.

⁹⁰ See Hunter 1950.

⁹¹ Cudworth 1743, pp. 146–174/Cudworth 1845, vol. 1, pp. 217–274. See Sailor 1962; Passmore 1951, ch. 2.

⁹² Atherton 1994, p. 94 (Masham to Leibniz, 20 October 1705).

⁹³ Bayle 1732, vol. 4, p. 185b (‘Réflexions de Mr. Bayle sur l’Article VII. du 6. Tome de la Bibliotheque choisie de Mr. le Clerc’).

too—did not actually have the Cartesian occasionalists in their sights, and consequently never addressed their doctrines and arguments directly, they did in fact have solid reasons for resisting such a move.

One chief reason why they thought that God should prefer to work through a created spiritual agent was that they felt that the alternative was simply unbecoming to the perfection of the deity. As Cudworth put it:

And as for the latter part of the disjunction, that every thing in nature should be done immediately by God himself; this, as, according to vulgar apprehension, it would render divine Providence operose, sollicitous and distractious, and thereby make the belief of it to be entertained with greater difficulty, and give advantage to Atheists; so, in the judgment of the writer *de mundo*,⁹⁴ it is not so decorous in respect of God neither, that he should *autourgein apanta*, set his own hand, as it were, to every work, and immediately do all the meanest and triflingest things himself drudgingly, without making use of any inferior and subordinate instruments.⁹⁵

But the rigour of this kind of argument is far from clear, especially in the light of the fact that one of the principal reasons why a figure such as Malebranche was moved to embrace occasionalism was that his own intuition on the matter led him in precisely the opposite direction. Malebranche felt that it would have been unbecoming to the perfection of the deity if God did *not* do everything immediately. Referring directly to Cudworth's theory of Plastic Nature in a letter of 1713, Malebranche wrote that these were 'words devoid of sense'. Organised bodies, he further explained, should rather be reckoned to 'mark the infinite intelligence of the Creator; and to give him such chimeras as assistants in the construction of his work is not to honour him'.⁹⁶ Many times throughout his works, Malebranche alluded to 'that blind Nature which the pagan philosophers have introduced into the world, to share with God the glory that is due to the fecundity and the simplicity of his ways', and he confidently rejected it.⁹⁷

But Cudworth did have another reason for ascribing the causal responsibility for physical phenomena to a created spirit, instead of attributing it directly to God, and this second argument was the one that More himself made the most use of. Both More and Cudworth felt that the latter move was contradicted by the manifest phenomena of the world. The empirical evidence, in their opinion, did not merely refute the mechanical philosophy. It refuted occasionalism too, for the immediate activity of a wise and omnipotent being could not be reconciled with the 'errors and bumbles' that were evident in the works of nature.⁹⁸ If More was multiplying entities, by postulating a Spirit of Nature rather than handing its role over to God himself, this was not without necessity, any more than his postulation of distinct human and animal souls had been.

⁹⁴The reference is to the pseudo-Aristotle: see Aristotle 1984, vol. 1, p. 636 (*On the Universe*, ch. 6; 398b4–10)

⁹⁵Cudworth 1743, p. 149/Cudworth 1845, vol. 1, pp. 222–223.

⁹⁶Malebranche 1959–1984, vol. 19, p. 833 (Malebranche to Conti, 14 June 1713).

⁹⁷Malebranche 1959–1984, vol. 6, p. 44 (*Réponse*, ch. 4, §17).

⁹⁸Cudworth 1743, p. 150/Cudworth 1845, vol. 1, p. 223.

Back in the 1640s, long before More devised his theory of a single, universal Spirit of Nature, he was already appealing to this argument from ‘bungles’ as a reason for attributing the plastic operations of individual creatures to particular seminal forms, instead of handing over the responsibility for such operations to God. Part of his explanation for imperfections in the created world lay in the fact that the infinite imperfection of Hyle would tend to resist the attempts by such seminal forms to shape and animate the matter.⁹⁹ But it was not only Hyle that was imperfect. Physis itself—the aggregate of all the world’s seminal forms—and the various individual components thereof were imperfect too. As creatures, these seminal forms would need to be limited in some manner or other, for otherwise they would have amounted to gods in their own right, and the notion of a plurality of gods was one which always horrified More. But such limitations would make them incapable of fully overcoming the ill-effects of the matter, as they endeavoured to do the jobs for which they had been designed. ‘Hence *Physis* or Nature is sometimes puzzled and bungells in ill disposed matter, because its power is not absolute and omnipotent.’¹⁰⁰ If God (or Psyche) had been acting directly on the matter, he (or she) would have been eminently capable of withstanding any attempts on the part of the matter to impede his (her) operations. These seminal forms, by contrast, were not even perfect enough to attain to powers of sensation and reason. In fact, even their purely plastic powers were limited. Hence, the pure evil and disorderliness of Hyle would tend to drag them down and thwart their operations. Given that there does seem to be real evil, disorder and imperfection in the natural world, it was clear to More that the immediate operator(s) therein could not be an omnipotent God, but rather had to be a limited being or collection of such beings.¹⁰¹

Later on, in 1659, More was still saying much the same thing about the plastic powers of souls. He maintained that the soul itself was ‘the more particular *Architect*’ of its own body, explaining first of all that—as he had already shown at length—such organised bodies could not result merely out of the fortuitous combination of atoms. But he then proceeded to explain why the responsibility should not be attributed directly to God either. ‘That God is not the *immediate Maker* of the *Bodies*,’ he argued, ‘the particular miscarriages demonstrate. For there is no Matter so perverse and stubborn but his *Omnipotency* could tame; whence there would be no Defects nor Monstrosities in the generation of Animals.’¹⁰² But such defects do exist, at least in some cases. So here we have direct empirical evidence for a metaphysical conclusion. We see imperfections in the world around us, and we infer from this that the matter must have been worked upon by created spirits rather than by God himself.

Such blunders were not limited to living organisms: More found them throughout the natural world, even in its ostensibly inanimate parts. He considered the air-pump

⁹⁹ *The Complete Poems*, p. 17a (*Psychozoia*, cant. 1, sts. 44–45).

¹⁰⁰ *The Complete Poems*, p. 139b (notes upon *Psychozoia*, cant. 1, st. 41).

¹⁰¹ Also see *Observations upon Anthroposophia Theomagica, and Anima Magica Abscondita*, pp. 57–58 (upon *Anima Magica Abscondita*, pag. 15).

¹⁰² *The Immortality of the Soul*, p. 101 (bk. 2, ch. 10, §2).

experiments of Robert Boyle, for instance, and argued at length that the observed phenomena could not admit of any purely mechanical causes, but rather demanded the activity of the Spirit of Nature or Hylarchic Principle.¹⁰³ Among other things, More observed that, when air was removed from the receiver of the air-pump by the free actions of man, nature would not rectify this unwelcome situation by causing the stopper to spring open and thereby allowing the vessel to refill itself with air from outside. On the contrary, it would actually become *harder* to pull out the stopper. The external air would be rushing against the face of the stopper, and its pressure would not be balanced out by a comparable outward force from within the vessel, meaning that the stopper would be held down by this pressure. Likewise, if a tapering valve was put in place of the stopper, this would be forced closed as the external air beat forcibly against its sides in its attempt to get into the receiver. But, in such cases, the air—or, rather, whatever was moving it—would clearly be thwarting its own endeavours. Admittedly, More did only believe that there was a relative vacuum in the air-pump for, much as the air might have been removed from the receiver, it was still going to be filled with aethereal matter, which was subtle enough to pass through the pores of the glass. Nevertheless, as far as he was concerned, nature was not even keen on partial vacua of this kind (at least not within the confines of the Earth's atmosphere), and it did its best to prevent them. But sometimes its best was simply not good enough. In cases like these, nature's attempt to refill a (relative) vacuum actually ended up helping to preserve that very state of affairs. If the motion of the air had been *wisely* directed, then it would not have pressed so forcibly against the face of the stopper, but would instead have done the sensible thing, gone round the side, and pried it out that way. More felt, first, that the air itself certainly could not be ascribed any power, knowledge and liberty of will.¹⁰⁴ But he also felt that whatever *else* might turn out to be moving the air could not be demonstrating any wise and free agency here either. He concluded that there had to be a spirit acting on the air, one that did possess plastic powers, but which probably lacked all sensation, and certainly lacked all reason and free will, and which would consequently slip up occasionally in its endeavours to perform the tasks with which it had been charged.

More equally turned his attention to Boyle's hydrostatical experiments, and he found similar problems there.¹⁰⁵ For instance, if a light wooden rundle (i.e. disc) was placed at the bottom of a bucket of water, it would be seen to rise to the top. However, if a hole was first made in the bottom of the bucket, a rundle was placed to cover it securely, and then the bucket was filled with water, the opposite would happen. If it was ever going to make sense for the disc to rise up, it would surely be here, so that the water might leave the bucket through the hole and proceed with its downwards gravitational endeavour. But, as it turned out, the water would

¹⁰³ See particularly *Enchiridion metaphysicum*, ch. 12.

¹⁰⁴ *An Antidote Against Atheism*, p. 44 (bk. 2, ch. 2, §8). This was one of the passages added in the 1662 edition. Also, *Enchiridion metaphysicum*, vol. 2, pp. 33–34 (ch. 12, §16).

¹⁰⁵ *Enchiridion metaphysicum*, ch. 13, and *Remarks upon Two Late Ingenious Discourses*, passim.

press too energetically against the rundle, forcing it against the hole, and thereby thwarting its own chances of escaping the bucket. It would now take a counterweight, commensurate to the weight of the incumbent cylinder of water, to lift the rundle from the hole and allow the water to pass through.¹⁰⁶ More had already proved to his own satisfaction that gravitation could not be explained mechanically. Its cause had to be spiritual, and what this experiment now showed was that this spirit could not act wisely or with free will, for otherwise it would not get itself into such a mess. As More put it in his response to Matthew Hale's discussion of these issues, the Spirit of Nature in such a case, by 'thrusting the Rundle closer to the Hole, intangles it self in its own attempt, as not acting by free reason and counsel, but by some general Laws of instinct and life, which in some such by-cases do not further but hinder the effect generally produced by Nature. Whence it is evident that this *Spirit of Nature* is not the first Cause, which is the *AEternal Wisdom*, but a mere inferiour Creature.'¹⁰⁷ And again, in a scholium to *Enchiridion metaphysicum*, More wrote that:

Since, therefore, neither any body nor any mode of bodies can be the cause of the gravitation of bodies, it remains that either God or a created spirit is. That God himself indeed, acting freely, wise, and benign, is that principle which involves itself in the gravitations of the elements would, I may say, be very ridiculous or profane to imagine, since that that same principle can be deceived and, as it were, caught and ensnared in traps is most clear from many experiments. Not to mention how unworthy it would be for Himself to be involved in sinking and suffocating the tender offspring of cats and dogs, nay, even innocent men, in a shipwreck, or in breaking the heads of men walking on the streets and perhaps looking with a devout mind for a temple through the hurling of loose tiles. And it would be indeed an equal absurdity if we were to suppose the cause of the gravitation of bodies to be a created spirit endowed with reason and free will.¹⁰⁸

More similarly referred to the hurling of tiles in a passage in *An Explanation of the Grand Mystery of Godliness* which described the differences between the Holy Spirit and the Spirit of Nature:

And further it is evident, that though the *Holy Spirit of God* and the *Spirit of Nature* be every where present in the World, and lie in the very same Points of Space; yet their Actions, Applications or Engagings with things are very distinct. For the *Spirit of Nature* takes hold only of *Matter*, remanding gross Bodies towards the Center of the Earth, shaping Vegetables into all that various Beauty we find in them; but does not act at all on our *Souls* or *Spirits* with Divine Illumination, no more than the *Holy Spirit* meddles with remanding of Stones downwards, or tumbling broken Tiles off from an House.¹⁰⁹

¹⁰⁶ See Hale 1674, pp. 93–94, and More's reply in *Remarks upon Two Late Ingenious Discourses*, pp. 77–80 (remarks 8 and 9, upon *Difficiles Nugae*, ch. 5), together with ch. 13 of *Enchiridion metaphysicum*. In relation to this discussion, we actually have a reply to More from none other than Samuel Clarke: see Clarke's note in Rohault and Clarke 1729, vol. 1, pp. 44–46 n. 1, at pp. 45b–46a (pt. 1, ch. 10, §11, note 1, corol. 3).

¹⁰⁷ *Remarks upon Two Late Ingenious Discourses*, pp. 79–80 (remark 9, upon *Difficiles Nugae*, ch. 5).

¹⁰⁸ *Enchiridion metaphysicum*, vol. 2, pp. 101–102 (ch. 13, §17, scholium).

¹⁰⁹ *An Explanation of the Grand Mystery of Godliness*, p. 322 (bk. 9, ch. 2, §9).

For More, neither God nor any individual person of the Trinity would ever directly cause something amiss to occur. Now, as far as an occasionalist like Malebranche was concerned, the fact that God would not (except in very rare cases, when a bona fide miracle was called for) deviate from regular laws of nature, in his occasionalistic production of mundane phenomena, was itself a testament to his supreme perfection. He *could* step in and benevolently intervene when such laws threatened to produce ill effects in the world, but he chose not to do so, because the best demonstration of his benevolence and wisdom together would result from his trading off some of the intrinsic perfection of the work in order to preserve the simplicity of his ways of producing and ordering it. But such an argument never occurred to More. From his point of view, if God had been directly responsible for physical phenomena, he surely *would* have deviated from his ordinary methods of regulating them whenever he saw that those methods were about to disrupt the perfection of the world by leading to a state of affairs where his overall plan for how things should ideally be (an atmospheric plenum should be preserved, heavy bodies should move downwards, good people should not be injured, etc.) was thwarted.

To sum up, the bungles and imperfections in natural phenomena showed to More's satisfaction that these phenomena were not being regulated directly by God himself. Meanwhile, the fact that they could not be subsumed under purely mechanical laws either showed that they did nevertheless need to be produced by a spiritual agent or agents. But the operations of particular created spirits could not reach any further than the boundaries of their own circumscribed regions of presence, so it was necessary—as well as being ontologically most parsimonious—that the Spirit of Nature should be a universal spirit, in order that it might be able to convey an influence between any given pair of bodies across great distances. And this created universal spirit could not have its own reason, goodness and free will, for then it would have been able to devise its own intricate deviations from its basic plan of activity (just as God himself could have done), and freely applied them in specific instances in order better to achieve the overall goals it had been assigned. Instead, it just blindly followed a simple set of general (though non-mechanical) laws of nature. Because these laws, despite not being mechanical, were nevertheless perfectly fixed—the 'inviolable Adamantine Laws of the great *Sandalphon* or *Spirit of the Universe*', as More called them¹¹⁰—they would sometimes fail to achieve the general goals for which God had devised them. For these laws were indeed freely and wisely chosen by God himself initially, but were then '*fatally and vitally, not intellectually* implanted in the *Spirit of Nature*, and in all *Humane Souls or Spirits*'.¹¹¹

Its universality aside, this Spirit of Nature really was just like those seminal forms of plants that it came to replace in More's system. Those individual seminal

¹¹⁰ *Two Choice and Useful Treatises*, second part, p. 137 (*Annotations upon Lux Orientalis*, upon ch. 14, pag. 136).

¹¹¹ *Two Choice and Useful Treatises*, second part, p. 129 (*Annotations upon Lux Orientalis*, upon ch. 14, pag. 125).

forms had been endowed with the power to form and to animate their own bodies vegetatively, but they did so without any inkling of what it was that they were doing, and they certainly lacked all capacity to alter their own programming deliberately. The Spirit of Nature was just the same. More would write: ‘That the *Spirit of Nature* hath Life, and that both *Plastical* and *Omniform*, I dare more confidently to aver: but as to Sense and Animadversion, I hold it a more rash business to determine any thing either negatively or affirmatively. But that is devoid of Reason and Free-will is with me an establish’d Point.’¹¹² The universe was, for More, just one great big plant, animated by a universal seminal form that would ignorantly carry out God’s plan (‘or if some obscure degree of sense be given to it, one large *Zoophyton* or *Plant-animal*’).¹¹³ The principal function of the Spirit of Nature was to raise ‘such *Phaenomena* in the World, by directing the parts of the Matter and their Motion, as cannot be resolved into mere Mechanical powers’.¹¹⁴ And it was, as More variously described it, ‘the great *Quartermaster-General* of Divine Providence’¹¹⁵; ‘the Vicarious Power of God upon this great *Automaton*, the World’¹¹⁶; and ‘a *mute copy* of the eternal *Word*... it being the *natural Transcript* of that which is *knowing* or *perceptive*, and is the lowest *substantial Activity* from the All-wise God, containing in it certain general Modes and Laws of Nature, for the good of the Universe.’¹¹⁷ But these laws of nature would sometimes fail to achieve the greatest possible good for the universe, precisely because of their generality.

Alan Gabbey has raised a query—or, indeed, a complaint—about More’s position. ‘To compound the difficulties in making sense of More’s position,’ he writes, ‘one wonders too if he intends the “shadow and image of life”, and the Spirit of Nature itself, to *act* “mechanically” when going about their ordinary business in the corporeal world, that is, to act in accordance with some set of lawlike regularities.’¹¹⁸ But the problem here is with Gabbey’s ‘that is’. As we have seen, More definitely did *not* think that the Spirit of Nature acted mechanically. It worked in direct opposition to what would have happened if the natural world had been left to develop mechanically: the oceans would, in that case, have been slung outwards, men in Cambridge would have been standing at 52 degrees, etc. However, as we have also just seen, the Spirit of Nature *was* nevertheless supposed to have been implanted

¹¹² *The Immortality of the Soul*, p. 215 (bk. 3, ch. 12, §1, note). See also op. cit., p. 31 (bk. 1, ch. 8, §4, note); *An Antidote Against Atheism*, p. 153 (bk. 2, ch. 1, §4, scholium); *Two Choice and Useful Treatises*, second part, p. 120 (*Annotations upon Lux Orientalis*, upon ch. 13, pag. 102); *Enchiridion metaphysicum*, vol. 2, p. 86 (ch. 13, §10, scholium); and elsewhere.

¹¹³ *Two Choice and Useful Treatises*, second part, pp. 243–244, here at p. 244 (*Annotations upon the Discourse of Truth*, The Digression).

¹¹⁴ *The Immortality of the Soul*, p. 212 (bk. 3, ch. 12, §1).

¹¹⁵ *The Immortality of the Soul*, p. 223 (bk. 3, ch. 13, §10).

¹¹⁶ *An Antidote Against Atheism*, p. 46 (bk. 2, ch. 2, §13). See also op. cit., p. 44 (bk. 2, ch. 2, §7), and *The Immortality of the Soul*, p. 223 (bk. 3, ch. 13, §9). These three references to the ‘vicarious power of God’ were all 1662 additions to these works: but a 1659 reference to the same may be found in *The Immortality of the Soul*, p. xiii (The Preface, §14).

¹¹⁷ *A Collection of Several Philosophical Writings*, The Preface General, pp. xv–xvi (§13).

¹¹⁸ Gabbey 1990, p. 29.

with ‘inviolable Adamantine Laws’, their inflexibility being the very thing that led to bungles in its operation. The point is simply that these laws were not mechanical. That is to say, they could not be framed in terms of size, shape and motion. But they were still laws for all that.

In More’s early works, by contrast, the ‘shadow of life’ that characterised Tasis *had* been supposed to operate mechanically. More’s rejection of (what he took to be) Descartes’ theory of the literal communication of motion between bodies had led him to attribute such apparent communications to those bodies’ own intrinsic vital resources: but, nevertheless, he did still follow Descartes in holding that many such processes could be described in purely mechanical terms. (He also recognised other, non-mechanical phenomena besides these, but he put those ones down to the activity of Physis and other higher spirits, rather than to the intrinsic vitality of Tasis itself). In that early period, More’s position had involved the *mechanical* activity of *living* bodies. Later on, the situation was reversed: the Spirit of Nature was supposed to operate *non-mechanically* on essentially *dead* bodies. But More countenanced lawlike regularities in *both* periods: what had changed was merely the character of those laws.

5 The Fate of the Spirit of Nature

As we have seen, More was not alone in his views about the involvement of vital forces in the ostensibly inanimate part of the physical world. I have already mentioned the digression on the Plastick Life of Nature that Ralph Cudworth inserted into the third chapter of his *True Intellectual System of the Universe* (1678). Cudworth’s theory was presumably developed in parallel with More’s own, rather than simply being derived from it: but he does nevertheless seem to have owed something to More. Indeed, one of only a couple of explicit name-checks that Cudworth’s ‘learned friend’ gets in the whole gigantic book appears in the third section of this digression, where Cudworth points his reader in the direction of *Enchiridion metaphysicum* and its discussions of the limits of mechanism.¹¹⁹ And Cudworth’s theory was much discussed, especially after 1704 when Pierre Bayle raised it in his *Continuation des pensées diverses*, prompting an important and widely read study in vol. 5 of Jean Le Clerc’s *Bibliothèque choisie*.¹²⁰ We have already noted that Malebranche gave it his consideration; and Leibniz did the same, discussing it directly with the author’s daughter, Lady Masham.

¹¹⁹ Cudworth 1743, p. 148/Cudworth 1845, vol. 1, p. 220. There is also an apparent echo of More in §13 (p. 159/pp. 241–242), where Cudworth presents an analogy of a sleeping musician who, on being exposed to the first few words of a song, will continue it through habit before he becomes properly conscious. On the other hand, Cudworth transposed this analogy to a new context, using it to illustrate the unconscious, plastic activity of nature, where More had used it to illustrate the unconsciousness of our latent innate knowledge, prior to its being eked out by sensible stimuli (*An Antidote Against Atheism*, p. 17 (bk. 1, ch. 5, §3)).

¹²⁰ See Simonutti 1993.

Admittedly, Bayle, Malebranche and Leibniz did all find it wanting: but there were others who were more sympathetic. For instance, John Ray (1627–1705) would draw heavily on both Cudworth and More, endorsing some similar ideas about plastic vital forces in nature in his celebrated *The Wisdom of God manifested in the Works of the Creation* of 1691.¹²¹ Nehemiah Grew (1641–1712) was likewise committed to directive vital principles, in conjunction with atomist mechanism, and he probably owed something to Ray directly, and to More and Cudworth at least indirectly.¹²² (Grew's position was also examined alongside Cudworth's in Bayle's *Continuation* and the resulting *Bibliothèque choisie* discussion). Or again, Henry Hallywell (c. 1640–1703) and Thomas Robinson (d. 1719) did the same, both of them formerly of Christ's College and presumably once pupils of More.¹²³ We already noted in Chap. 6 (pp. 219–220) that Robinson's views on spiritual extension were drawn directly out of More: but so too would he also postulate an '*Anima Mundi*, which is the great *Soul* of the Universe, that by its *Plastick* and *Vivifick* Powers, Actuates, Informs, and Enlivens this great Body'.¹²⁴ Admittedly (and as we also noted in Chap. 6), Robinson—unlike More—was inclined to link this *anima mundi* directly with God himself. But then he additionally postulated not only particular seminal forms for individual plants, but even mineral spirits for minerals and stones.¹²⁵ Here too, he was actually diverging from More's mature position: More felt that the former and especially the latter were superfluous, for the universal (but created) Spirit of Nature could do all of their work on its own. But, nevertheless, where Robinson was in staunch agreement with More was over the more fundamental point, that mechanism was wholly inadequate for this work.

But, frankly, the Spirit of Nature's days were numbered from the very moment of its inception. It came under fire from two chief directions, both from those who felt that mechanism was perfectly adequate after all, and from those who, notwithstanding any limitations that mechanical explanations might have faced, regarded More's alternative as being just too mystical and unsupported to be taken seriously.¹²⁶ We already mentioned Robert Boyle in the last chapter, as a representative of the first point of view; Leibniz was another. Besides discussing Cudworth's theory of the Plastick Life of Nature with Lady Masham, Leibniz elsewhere tackled More's theory of the Spirit of Nature or Hylarchic Principle head-on. In 'A Specimen of Dynamics', Leibniz wrote:

¹²¹ See Raven 1942, pp. 456–461 and passim; Hall 1990b, pp. 120 and 245–246.

¹²² See Garrett 2003.

¹²³ For Hallywell's position, see Hallywell 1667, p. 59; Hallywell 1681, unpaginated Epistle to the Reader, and pp. 9, 62–63; and passim. For Robinson, see immediately below. Hallywell was admitted to Christ's in 1657, graduating BA in 1660/1 and MA in 1664; and he was a fellow there from 1662 to 1667. Robinson was admitted in 1664, and graduated BA in 1668. (Venn and Venn 1922–1927, vol. 2, p. 290b; and vol. 3, p. 474a).

¹²⁴ Robinson 1709, p. 113.

¹²⁵ Robinson 1709, p. 111.

¹²⁶ A more nuanced position was adopted by John Toland, who tellingly connected the notion of a plastic soul of the world with More's other most cherished notion of an infinitely extended but incorporeal space, and suggested that both arose out of the same erroneous belief in the inactivity of matter. See Toland 1704, pp. 210–212 et seq. (letter 5, §§23–24).

However, even though I admit an active and, so to speak, vital principle superior to material notions everywhere in bodies, I do not agree with *Henry More* and other gentlemen distinguished in piety and ability, who use an *Archaeus* (unintelligible to me) or hylarchic principle even for dealing with the phenomena, as if not everything in nature can be explained mechanically, and as if those who try to explain everything mechanically are thought to eliminate incorporeal things, not without the suspicion of impiety.¹²⁷

In ‘On Nature Itself’, Leibniz observed that More’s Hylarchic Principle was ‘in part impossible, and in part unnecessary’; and many other comparable remarks can be found throughout his works.¹²⁸ Metaphysically, Leibniz was certainly a vitalist, but he preferred to resolve all creaturely causation into the immanent activity of each monad as it caused its own perception to evolve in pre-established harmony with that of each other monad. But, physically, Leibniz was convinced that mechanical explanations *could* be found for all natural phenomena, and he put a lot of work into providing such explanations where they had previously been lacking. Like Boyle, he was convinced that an adherence to mechanism did not lead one away from God, as the mature More had feared, but actually led one towards him as one came fully to appreciate the wisdom of the divinely instituted contrivance of nature.

George Berkeley also rejected ‘hylarchic principles’ in his early work, the *Three Dialogues* (1713), alongside ‘plastic natures’ and many other metaphysical concepts from other authors, as so many chimeras that (he felt) could be dispatched by his own immaterialist philosophy.¹²⁹ Now, it is true that, in his late work, *Siris* (1744), Berkeley would come to embrace the notion of a pure aethereal fire that did seem to have some affinities with More’s spirit. ‘This aether or pure invisible fire, the most subtle and elastic of all bodies, seems to pervade and expand itself throughout the whole universe’, he wrote. ‘So quick in its motions, so subtle and penetrating in its nature, so extensive in its effects, it seemeth no other than the vegetative soul or vital spirit of the world.’¹³⁰ However, as the characterisation of this invisible fire as the most subtle of all *bodies* makes clear, it was not supposed to be a genuinely immaterial substance, as More’s Spirit of Nature certainly was. Notwithstanding its subtlety and universality, it really was supposed to be corporeal, much more like the mundane spright or ‘liquid fire’ of More’s early works (although Berkeley did not actually cite More). Or, indeed, like Newton’s aethereal spirit (with which Berkeley *was* inclined to link it).¹³¹

¹²⁷ Leibniz 1989, pp. 125–126 (‘A Specimen of Dynamics’).

¹²⁸ Leibniz 1989, p. 156 (‘On Nature Itself’). Also see, for instance, op. cit., pp. 314–15 (‘Against Barbaric Physics’); Leibniz 1969, pp. 555 (‘Relections on the Doctrine of a Single Universal Spirit’), 587 (‘Considerations on Vital Principles and Plastic Natures’), 655 (Leibniz to Remond, 10 January 1714); Leibniz 1996, pp. 343–344 (bk. 3, ch. 10, §14).

¹²⁹ Berkeley 1948–1957, vol. 2, p. 258 (*Three Dialogues*, dial. 3).

¹³⁰ Berkeley 1948–1957, vol. 5, p. 82 (*Siris*, §152).

¹³¹ See Berkeley 1948–1957, vol. 5, pp. 74–77, 100–102, 106–110 (*Siris*, §§126–134, 200–206, 220–228). Of course, for Berkeley, this invisible fire was not a material *substance* either. But that was for Berkeley’s own idiosyncratic reasons: it was still corporeal for all that.

Those speculations at the end of Newton's General Scholium, about a subtle and all-permeating electrical spirit, likewise seem to have greater affinities with More's poems than with his mature theory of the Spirit of Nature. Like the 'caloric' and 'phlogiston' that followed it, Newton's electrical spirit does seem to have been conceived as a fine but nevertheless material fluid, whereas More's Spirit of Nature was explicitly immaterial.¹³² When it came to the Hylarchic Principle of More's later works, although Newton was not prepared to dismiss it out of hand—on the grounds that he did not (yet) have adequate empirical grounds firmly to rule it out—he certainly was not keen on it. At different times in his career, Newton seems to have believed that a phenomenon like gravitation either could be explained mechanically after all; or, if it could not be, that it was more likely that it should have been caused directly by the hand of God himself. But *both* of these opinions differed from More's.

There is another passage in Newton, besides those mentioned in the last chapter, that is worth our considering just briefly. Newton wrote in *De gravitatione*:

if anyone should think it possible that God may produce some intellectual creature so perfect that he could, by divine accord, in turn produce creatures of a lower order, this I submit does not detract from the divine power, it posits an infinitely greater power, by which creatures would be brought forth not only directly but by other intermediate creatures. And so some may perhaps prefer to posit a soul of the world created by God, upon which he imposes the law that definite spaces are endowed with corporeal properties, rather than to believe that the function is directly discharged by God.¹³³

Westfall has suggested that this reference to 'the soul of the world' might be linked to the Cambridge Platonists.¹³⁴ But three points should be noted. The world-soul that Newton was here discussing differed starkly from both More's Spirit of Nature and Cudworth's Plastic Nature, in that (i) he described it as an *intellectual* creature, whereas More and Cudworth were quite explicit in denying any intellect in their purely vegetative spirits; and (ii) he suggested that it might actually be able to *create* bodies, whereas their spirits were only supposed to be able to shape and to move them. And, in any case, (iii) Newton was not actually endorsing this viewpoint: he went on to say that *he* could see no good reason why God should not create bodies directly. Again, we find nothing to commit Newton to anything remotely resembling More's theory.

The real trouble with More's approach was that he was blurring the boundary between physics and metaphysics, at precisely the moment when his contemporaries were endeavouring to separate them. Even though Newton might have had some doubts about the capacity of mechanism to explain all natural phenomena, he still felt that any alternative hypothesis ought to come from the physicists, and ought to be derived from and tested by just the same experimental methodology as the

¹³² Hall likewise distinguishes between the two on these grounds: see Hall 1990b, pp. 239–240, 265–267, and *passim* in chs. 11–12. Also Hall 1990a, p. 49.

¹³³ Newton 2004, p. 30/Newton 1999, p. 142 (*De gravitatione*).

¹³⁴ Westfall 1971, p. 341.

mechanical hypotheses themselves. It was not that More's arguments did not have any grounding in empirical evidence: they had plenty. The trouble was that this evidence had a negative character, tending to show that mechanism alone was inadequate. More's Spirit of Nature was, as it were, a spirit-of-the-gaps, and its ad hoc introduction was only ever going to be as safe as the gaps in the physicists' theories were otherwise unpluggable. What it lacked was any *positive* empirical support. Even those who might have agreed with More that the seventeenth-century billiard-ball version of mechanism was inadequate would have been happier if any replacement for (or extension to) it could have been based on experimental evidence, rather than on a blend of priori reasoning, scriptural exegesis and appeals to the authority of Plotinus.

Chapter 10

The Life of the Soul

1 The Pre-existence of the Soul

Through all of the contentious debates in which More engaged himself, although his position might have regularly reached considerably beyond the express tenets of the Church of England, at least it tended not to come into direct conflict with them. In his conviction that the human soul existed before it came to be united to a terrestrial body, however, he was on shakier ground. There was a fairly active debate on this question during More's time, in England and further afield too; and, although the Church and intellectual society at large might have rather begrudgingly tolerated supporters of the pre-existence of the soul, they were far from keen on the doctrine.¹ More was one of the few participants in this debate who felt confident enough to sign his name to works that argued for pre-existence; and, as luck would have it, he never actually got into any real trouble over this. But he recognised that he was in a precarious position, and he was always scrupulous to declare that he was offering the doctrine merely as a conjecture, one that he would be entirely content to abandon if the Church was to come down firmly against it.

Thus, in the preface to his first extensive discussion of the issue, the poem *The Praeexistency of the Soul* (1647), More sought to defend the orthodoxy of the doctrine of pre-existence, but he closed with the words: 'But mistake me not, Reader; I do not contend (in thus arguing) that this opinion of the Praeexistency of the Soul, is true, but that it is not such a self-condemned Falsity, but that I might without justly incurring the censure of any Vainnesse or Levity, deem it worthy the canvase and discussion of sober and considerate men.'² And again, in his final extensive discussion of the issue, the *Annotations upon Lux Orientalis* (1682), More again addressed the question of its orthodoxy. *Lux Orientalis* itself, a defence

¹On this debate (and on More's own views on the issue), see Berg 1989; Almond 1991; Hutton 1996a; Dockrill 1997, pp. 60–65; Crocker 2001; and Crocker 2003, ch. 8.

²*The Complete Poems*, p. 118 (*The Praeexistency of the Soul*, Preface).

of pre-existence penned anonymously by Joseph Glanvill (1636–1680), had closed in a similar fashion, with a paraphrase of the closing words of Descartes’ *Principles*:

That although these matters seem hardly otherwise intelligible than as I have here explained them:

Yet nevertheless remembering I am not infallible, I assert nothing; but submit all I have written to the Authority of the *Church of England*, and to the matured judgments of graver and wiser men; Earnestly desiring that nothing else may be entertained with credit by any persons, but what is able to win it by the force of evident and victorious reason. *Des Cartes Princ. Philos. lib. 4. §. CVII* [sic: actually CCVII].³

And More endorsed Glanvill’s sentiment in his own annotations:

But submit all that I have written to the Authority of the Church of England, &c. And this I am persuaded he heartily did, as it is the duty of every one, in things that they cannot confirm by either a plain demonstration, clear authority of Scripture, Manifestation to their outward Senses, or some rousing Miracle, to compromise with the Decisions of the National Church where Providence has cast them, for common peace and settlement, and for the ease and security of Government.⁴

And yet More (like Glanvill himself) was satisfied that, although he might not have been able to prove the doctrine beyond all possible doubt, and consequently needed to retain a certain intellectual humility, he could nevertheless muster some pretty compelling arguments in its favour.

As regards the orthodoxy question itself, More appealed to various scriptural texts which seemed, at least to him, to insinuate a doctrine of pre-existence; and he referred—selectively, it has to be said—to the teachings of numerous Fathers and to the rulings of numerous Councils. But then, in addition to this, he appealed to the authority of all manner of Jewish and pagan philosophers, his goal in this latter ploy being to establish an argument from the common consent of nations, along the lines of that which was regularly adduced in support of the existence of God. If the wisest figures from every culture could be shown to agree on a certain tenet, this tended to suggest that such a notion was innate, and consequently that it could be accepted as true. Several examples of such appeals to authority on the issue of pre-existence may be mentioned from throughout More’s works, but the most extensive is to be found in a passage from the *Divine Dialogues*. There, More cited the following as all having asserted the pre-existence of the soul: Pythagoras, Plato, Aristotle, the Egyptian Gymnosophists, the Indian Brahmen, the Persian Magi, Zoroaster, Epicharmus, Empedocles, Cebes, Euclid, Euripedes, Plotinus, Proclus, Iamblichus,

³Glanvill in *Two Choice and Useful Treatises*, first part, p. 151 (*Lux Orientalis*, ch. 14).

⁴*Two Choice and Useful Treatises*, second part, p. 147 (*Annotations upon Lux Orientalis*, upon ch. 14, pag. 151). In between these two cases (1647, 1682), also see More’s own expressions of submission to the Church, in relation to the orthodoxy of this theory, in *The Apology of Dr. Henry More* (1664), pp. 487, 489–490, 560 (ch. 1, §13; ch. 2, §1; ch. 10, §2). Or, again, it was only ‘by inserting a page or two more’, to soften ‘the stresse and dogmaticallnesse that appeared before touching preexistence’ that More was able to get his *Divine Dialogues* (1668) past Samuel Parker, its licenser for publication. (*Conway Letters*, p. 294 (More to Conway, 12 May 1668); Hutton 2004, p. 60).

Cicero, Virgil, Psellus, Boethius, Hippocrates, Galen, Fernelius, Philo and the rest of the most learned Jews, Jacob, Solomon, Saints Augustine, Basil, Gregory Nazianzen, Clement of Alexandria, Origen, Synesius, Arnobius, and Prudentius.⁵ Now, More might have been on pretty shaky ground in so boldly declaring some of these authors as having supported the doctrine: but, in certain other cases, he was indisputably correct in his assessment.

Most prominently of all, the seventeenth-century supporters of pre-existence tended to turn to Origen for their chief source.⁶ For instance, George Rust (c. 1628–1670)—if the work was indeed his—declared his own support for pre-existence in an anonymous work of 1661, entitled *A Letter of Resolution concerning Origen and the chief of his Opinions*.⁷ Origen was certainly not the most orthodox figure among the Fathers of the Church, and churches of all denominations did tend to frown on some of his eccentricities—including this belief in pre-existence—and occasionally even went as far as to declare some of his views anathema. Nevertheless, he was still an important figure in the early development of Christian doctrine, and he did generally command a fair amount of respect in the seventeenth century, even if not actual support on every point.

For Origen, the life of the soul consisted in a gradual process of first falling away from God and then reascending towards an ultimate reunion with him. Instead of each soul's being freshly created on the occasion of the quickening (or the birth, or the conception, or whatever) of a new terrestrial human body, all souls were created together in the beginning. 'We must suppose, therefore, that in the beginning God made as large a number of rational and intelligent beings, or whatever the before-mentioned minds ought to be called, as he foresaw would be sufficient.'⁸ Moreover, these souls were all created in a state of perfection: but they then defected from such a state and fell, becoming bound in coarser and coarser bodies, tumbling all the way down from subtle aethereal vehicles to gross terrestrial bodies. Having first fallen, however, they then had the capacity gradually to arise once more through those same levels, according to their merits. As we will see, Origen's scheme (alongside its many precursors and echoes among pagan Platonic and other sources) would be providing the basic framework for More's own opinions (not to mention those of

⁵*Divine Dialogues*, pp. 261–263 (dial. 3, §31). As if this list was not long enough, More tossed a few further names into his other discussions. See *The Complete Poems*, p. 118 (*The Praeexistency of the Soul*, Preface); *Conjectura Cabbalistica*, pp. 156–58 (*Appendix to the Defence of the Philosophick Cabbala*, ch. 6); *The Immortality of the Soul*, pp. 115–117 (bk. 2, ch. 12, §§9–15); *An Explanation of the Grand Mystery of Godliness*, pp. 15–17 (bk. 1, ch. 8); *A Collection of Several Philosophical Writings*, The Preface General, pp. xx–xxvi (§§18–20). Also, both on this and on the question of the theory's orthodoxy, see the long discussion in *Two Choice and Useful Treatises*, second part, pp. 147–171 (*Annotations upon Lux Orientalis*, upon ch. 14, pag. 151).

⁶See Hutton 1996a; Hutton 2004, pp. 69–71.

⁷On the attribution of *A Letter of Resolution* to Rust, see Berg 1989, pp. 108–109 and n. 41.

⁸Origen 1973, p. 129b (bk. 2, ch. 9, §1). This is following the Latin version of Rufinus, the only complete text we have. The original Greek here had 'as he could control' in place of 'as he foresaw would be sufficient'.

Glanvill, Rust, Cudworth, etc.), concerning not only the soul's pre-existence but the complete cycle of its life.

As for More's actual arguments for pre-existence, he contrasted the doctrine with two alternative positions. According to one, a person's soul would be 'traduced' from the souls of one or both parents, drawn out of them in much the same manner as that in which as his body was generated out of their bodies. But the notion that elements of both parents' souls might unite to produce the child's soul, as bits of their bodies united to produce his body—or even that a piece of just one parent's soul might separate itself from the remainder and grow into the child's soul—was inconsistent with the essential indiscernible unity of an immaterial substance.⁹ The standard analogy, to illustrate this doctrine of traduction, compared it to the way in which one candle flame could light another candle without suffering any diminution in itself. But More felt that this was a poor analogy, because the first candle did not actually bring any new *substance* into being, but merely altered the state of the oily atoms that were already present in the second; whereas the child's soul—as More was satisfied that he had sufficiently proved elsewhere—was entirely distinct from the matter of its body.¹⁰

The other doctrine that More opposed was simply that each soul was created concurrently with the formation of the terrestrial body that it was going to inhabit. More had several arguments against this view, and in favour of pre-existence, of which we need only touch on a couple.¹¹ It would, More felt, be beneath the dignity of God for him to act as a servant to our carnal lusts, and to stoop to assist in delivering the natural consequences of whoredom, adultery, incest and other still more vile and depraved practices.¹² Moreover, his goodness was such that it would incline him to create each soul just as soon as he possibly could, so that it might enjoy maximal happiness. For him to have waited until the parents got together would have meant that the child's soul would have missed out on the happiness that it might have enjoyed in the time that elapsed between the original creation of the world and its own eventual creation. Indeed, the most appropriate state for a soul to find itself in at the first moment of its creation was not to be sunk into terrestrial matter, with all the pains and limitations that such a lowly state would bring with it, but was rather to inhabit a celestial vehicle in the aethereal heavens. Any perfect and loving God would surely wish to produce his spiritual creatures in the latter state of perfection. If they were then to fall away from this state, through the sinful exercise of the freedom wherewith God had been kind enough to endow them, then they would be entirely to blame for their just punishment, having brought the suffering of the terrestrial life onto themselves through their own disobedience. All in all, it was more

⁹*The Immortality of the Soul*, p. 113 (bk. 2, ch. 12, §5).

¹⁰*The Complete Poems*, pp. 127a–b (*The Praeexistency of the Soul*, sts. 88–89). See also *The Second Lash of Alazonomastix*, p. 140 (upon [page 72], observation 35).

¹¹For a slightly fuller discussion, see Crocker 2001, pp. 80–84, especially pp. 81–82.

¹²See *Two Choice and Useful Treatises*, second part, pp. 8–15 (*Annotations upon Lux Orientalis*, upon ch. 2, pag. 10); and elsewhere.

consistent with God's nature that he should have created all souls together at the beginning of time, and created them in the purest state possible, than that there should have been a daily creation of new souls on the occasion of the conception of new bodies, and that those innocent new souls should have been immediately plunged into terrestrial matter.

More felt that the creation story of Genesis itself supported the doctrine of pre-existence. After all, did it not tell us that God completed his work in six days, and then rested? More interpreted this to mean not only that God had long since stopped fabricating new *species* of creature: he had also stopped creating new *individuals*.¹³ The atoms or physical monads of the world would find themselves arranged and rearranged in ever-changing macroscopic forms, but—short of a miracle—the actual number of these atoms would remain a constant from the first moment of their creation throughout infinite future time. But equally—and, again, short of a miracle—the number of spiritual creatures would neither rise nor fall from the first day onwards to eternity. It would certainly be within God's *power* either to create a new atom or soul, or equally to annihilate any that were already in existence: but, in the ordinary course of events, it would conflict with his goodness and his wisdom for him actually to do so.

To the objection that, if our souls pre-existed our terrestrial lives, we ought to be able to remember the things that we had seen and done in our previous state, More replied that our memories were obliterated by the process of our entry into the body. Other things being equal, he did not see any impediment to a soul's retaining its memories through a change of state: but it depended on the direction of that change. When the soul eventually left its terrestrial body and adopted an aerial vehicle, and from thence subsequently moved up into an aethereal vehicle, it could retain its memories. Indeed, those improvements in the vehicle would actually serve to render it an even more effective physical seat for the memory. By contrast, when the soul was imprisoned in a gross, terrestrial body, it found itself a less perfect condition than that which it had previously enjoyed. It was therefore only natural to suppose that such a deterioration would tend to wash out the soul's memories, in just the same way as, even within the span of a person's terrestrial life, memory could be disrupted by 'Casualties, Diseases, and old Age, which changes the tenour of the Spirits, and makes them less useful for memory'.¹⁴

The notion of a pre-existing soul, passing through successive transmigrations before finally taking on the form of a specific human individual is, of course, most famously associated with Plato, and Plato had himself linked this notion of pre-existence with the memory. As he argued in *Meno* and elsewhere, he felt that the only way our possession of knowledge of universal and necessary truths could

¹³*Two Choice and Useful Treatises*, second part, pp. 16–18 (*Annotations upon Lux Orientalis*, upon ch. 2, pag. 15).

¹⁴*Two Choice and Useful Treatises*, second part, pp. 27–39, here p. 35 (*Annotations upon Lux Orientalis*, upon ch. 5, pag. 46); and *The Immortality of the Soul*, pp. 120–123 (bk. 2, ch. 13, with the note thereto).

be explained would be for it in fact to be the recollection of knowledge that had been acquired by the soul in some earlier, non-human state, forgotten when the soul entered the body, but then subsequently revived into consciousness by sensible stimuli and discourse. And yet More sought to distance himself from Plato on this point. In 1651, he wrote to Thomas Vaughan:

thou conceivest that Reminscency is so strong an argument to prove the Preexistency of the soul before her entrance into the body. I say it is not any argument worth the insisting upon. For though the soul do finde truth in her self, questions being wisely proposed to her; yet she doth not perceive that she ever thought of those things before, and therefore cannot acknowledge any such Reminscency in herself. And I appeal unto thine own reason, *Eugenius*, if God should create an humane soul, and put it into a body fit and complyable with contemplation, whether that soul would not be able to answer all the questions propounded in *Plato's Meno*, as well as those that are supposed to preexist. And therefore I have not made use of this argument in all my *Platonical Poems*. For I tell thee, *Phil*. I am a very wary Philosopher, and he must rise betimes that goes about to impose upon my reason.¹⁵

More certainly did not believe that the senses were sufficient to ground our universal knowledge, and he argued in those Platonical poems for innate ideas. But, just as long as such ideas were present in our minds, independently of sensual experience, all of the epistemological phenomena could be saved. It was not necessary to adopt any particular hypothesis about *how* they came to be thus present in the mind, whether placed there directly by God as he freshly created a new mind on the occasion of the conception of a new body, or alternatively acquired in some earlier state. Since we did not have the *feeling* that these were things that we had encountered before this life, we had no good grounds for describing them as memories, and hence no argument from our intellectual capabilities to the pre-existence of our souls.

Later on, however, More did show some support for an argument from epistemology to pre-existence, but one that turned Plato's original argument curiously on its head. Although it was actually Glanvill who was taking the lead down this path, More seemed happy to follow him. The thing that had particularly intrigued Glanvill was the way in which different people would instinctively find themselves drawn to one or other side of an intellectual debate. He was struck by

the strange difference and diversity that there is in mens *wits* and *intellectual craseis*, as well as in the dispositions of their *wills* and *appetites*. Even the natural tempers of mens *minds* are as vastly different, as the *qualities* of their *bodies*. And 'tis easie to observe in things purely *speculative* and *intellectual*, even where neither *education* or *custom* have interposed to sophisticate the natural *noēmata*, that some men are strangely *propense* to some *opinions*, which they greedily drink in, as soon as they are duly represented; yea, and find themselves burthened and opprest, while their *education* hath kept them in a *contrary belief*, when as *others* are as fatally set against these *opinions*, and can never be brought favourably to resent [i.e. to accept] them.¹⁶

¹⁵*The Second Lash of Alazonomastix*, pp. 88–89 (upon [page 32], observation 1).

¹⁶Glanvill in *Two Choice and Useful Treatises*, first part, pp. 76–77 (*Lux Orientalis*, ch. 10).

Glanvill offered as an example the debate about whether or not extension could be attributed to spirits. Some people simply could not bring themselves to accept that it could be, no matter how many arguments were propounded in favour of the doctrine. Others, meanwhile, simply could not bring themselves to accept that anything unextended could be allowed any existence at all, no matter how much was said in favour of that side of the debate. And Glanvill identified a disanalogy between these differences in people's speculative idiosyncrasies and mere differences of taste. Whereas different preferences for sensible things could be explained in terms of the temperaments of different people's *bodies*, a man's prejudice in purely speculative matters could not be:

Were his *difference* about *sensibles*, yea, or about things depending on the *imagination*, the *influence* of the body might then be suspected for a *cause*. But since it is in the most *abstracted Theories* that have nothing to do with the grosser *phantasmes*; since this *diversity* is found in *minds* that have the greatest care to free themselves from the *deceptions* of *sense*, and intanglements of the body, what can we conclude, but that the soul it self is the *immediate* subject of all this *variety*, and that it came *praejudiced* and *praepossessed* into this *body* with some *implicit notions* that it had learnt in another?¹⁷

In his *Annotations*, More remarked of this point that it was 'very rationally alleaged by our Author'.¹⁸ He agreed with Glanvill that, unlike in the case of our tastes for sensible things, it could not be the body that caused us to approve and disapprove of abstract, speculative opinions, and he observed:

the reason is obvious why not; because the liking or disliking of these Sensibles depends upon the grateful or ungrateful motion of the Nerves of the Bodie, which may be otherwise constituted or qualified in some complexions than in other some. But for Philosophical Opinions and Theories, what have they to do with the motion of the Nerves? It is the Soul herself that judges of those abstractedly from the Senses, or any use of the Nerves or corporal Organ.¹⁹

The question, then, was: what *did* account for these intellectual prejudices?

Let us begin by considering *when* they might first have arisen in the soul. There are, it would seem, only three possibilities here. (i) Perhaps they were acquired during this current terrestrial life. But it is hard to see how they could have been acquired through sensual experience, given that the abstract, intellectual matters they concerned were so independent of all possible experience. And it does not seem that they could have arisen through the subject's prior intellectual contemplation of the issues during this life either, because, in many cases, there would simply have been none. These prejudices would often manifest themselves just as soon as the subject was first exposed to the topic, before he or she had really had time to think about it. Glanvill and More concluded that they must already have existed as

¹⁷Glanvill in *Two Choice and Useful Treatises*, first part, p. 78 (*Lux Orientalis*, ch. 10).

¹⁸*Two Choice and Useful Treatises*, second part, p. 86 (*Annotations upon Lux Orientalis*, upon ch. 10, pag. 78).

¹⁹*Two Choice and Useful Treatises*, second part, pp. 86–87 (*Annotations upon Lux Orientalis*, upon ch. 10, pag. 78).

latent propensities within the subject's mind, ever since birth. (ii) Perhaps, then, they were created with the soul *at* birth, thereby still avoiding any need to postulate pre-existence. But the crucial point about these intellectual prejudices—and it is this that makes Glanvill and More's argument the very opposite of Plato's—was that at least some of them were such as would draw their holders towards *false* beliefs. Platonic knowledge could only ever lead its subjects towards eternal *truths*, never away from them, and Plato felt that such knowledge was lurking in every human soul, just waiting to be recalled. But the sorts of prejudices that Glanvill and More were discussing might equally well lead their subjects *away* from the truth as lead them towards it. Either spirits were extended or they were not. One opinion was right, the other was wrong, and different subjects would experience equally strong propensities in each direction. But then, if these prejudices had been created with the soul by God himself, he would surely turn out to be a deceiver. Some of his creatures—those that were unlucky enough to be endowed with a propensity that pointed the wrong way, whichever way that might have been—would have been condemned to fall almost irresistibly into error, even before they had had any opportunity to sin and thereby to deserve such a punishment. As Glanvill wrote: 'the *Soul* in its *first* and *pure* nature hath no *idiosyncrasies*, that is, hath no *proper* natural inclinations which are not competent to others of the same kind and condition. Be sure, they are not fatally *determin'd* by their natures to *false* and *erroneous* apprehensions.'²⁰ And More agreed: 'as the Author himself seems to insinuate, if there be any such [original idiosyncracies], they are not such as fatally determine Souls to false and erroneous apprehensions. For that would be a corruption and a blemish in the very natural Character. Wherefore if the Soul in Philosophical Speculations is fatally determined to falshood in this life, it is credible it is the effect of its being inured thereto in the other.'²¹

Putting these two conclusions together, that these prejudices were present in the subject's mind ever since birth, but that they were *not* present ever since the mind's original creation, the consequence is clear. (iii) The mind's original creation must have preceded its owner's birth, so that these prejudices could have been acquired some time between the two events. The presence of these prejudices within us—as the very word 'prejudice' would tend to suggest—indicates that we have *already judged* the matters in question. The soul must have pre-existed its terrestrial body, so that it might have already had the opportunity actively to weigh up the arguments and to form a conclusion about them for itself—in some cases, the wrong conclusion. When it sank into the terrestrial body from a superior state, it would lose its memories of ever having contemplated the issues before. But then, once it was presented with the question again, the conclusion that it had previously reached would come back to it, and it would instinctively lean to that side in the debate and proceed to defend it with great tenacity.

²⁰Glanvill in *Two Choice and Useful Treatises*, first part, p. 78 (*Lux Orientalis*, ch. 10).

²¹*Two Choice and Useful Treatises*, second part, p. 87 (*Annotations upon Lux Orientalis*, upon ch. 10, pag. 78).

2 The Immortality of the Soul, and Aerial and Aethereal Vehicles

If More's belief in the pre-existence of the soul was somewhat controversial in the seventeenth century, he was certainly on much safer ground in his insistence on its immortality. It would have been, frankly, rather bizarre if he had not argued for that conclusion. In 1642, More used the subtitle 'The Immortality of the Soul' to summarise the main thrust of *Psychathanasia*, the longest part of *Psychodia Platonica*. In 1659, it became the main title of one of his most important and substantial philosophical works, the subtitle of which promised to show how far such immortality was 'demonstrable from the Knowledge of Nature, and the Light of Reason'. And these two works (among others) do indeed contain a few arguments that are aimed directly at the conclusion that the soul is immortal. By and large, however, More's principal concern in each was actually not the soul's immortality as such, so much as its immateriality, for his opinion was that the former should flow naturally out of the latter.

In the case of bodies, it was their discernibility that rendered them corruptible. It was possible for them to disintegrate and, if left to themselves and no longer held together by spiritual powers, they would naturally do precisely that. Moreover, the fact that a body was an aggregate of distinct atoms was among the reasons why it could not do the jobs that were required of spirits.²² No aggregate could ever display the unity of consciousness that was characteristic of thinking beings in particular; nor could it be endowed with the self-motion that was essential to spirits more generally. It was necessary that there should be spiritual substances that were utterly indiscernible, and that indiscernibility meant precisely that such spirits could never fall apart of their own accord or even be torn apart by external forces. As we saw in Chap. 6, even after More's shift from holenmerianism to his new theory of spiritual extension, he still felt that God 'may annihilate a Spirit, if he will. But if a Spirit be immediately and essentially one, he can no more discern it, than he can separate that Property, of having the power of the *Hypotenusa* equal to the powers of both the *Basis* and *Cathetus*, from a *rectangle-Triangle*.'²³ The fact that God could annihilate a spirit did entail that it was not *necessarily* immortal: but the fact that its essence would resist all attempts to discern it meant that it could yet be *naturally* so. Left to its own devices, it would tend to persist in its perfect integrity.

More examined the suggestion that, notwithstanding the immateriality of the soul, it might nevertheless be so dependent on the body to which it was united that it would nevertheless perish as soon as the latter failed. But he insisted that only *some* of the soul's operations depended on its embodiment, and that even those that did so could still be performed by the soul, even after it had become detached from

²²See, for instance, *An Antidote Against Atheism*, p. 224 (Appendix, ch. 13, §§8–9).

²³*Divine Dialogues*, p. 65 (dial. 1, § 30). Again, I have used the 1668 edition to correct the minor misprint ('... from *rectangle-Triangle*.') in the 1713 edition: see above, p. 190 n. 17.

that body, just as long as it was provided with some new corporeal vehicle to animate.²⁴ More felt that, although God might have had the *power* to annihilate the soul at will, it would conflict with his nature for him actually to do so on the occasion of the disintegration of its terrestrial body. On the contrary, he would not merely allow it to live on, but would go so far as to provide it with a new aerial vehicle in which it could continue to exercise its animating powers. God's justice required that there should be posthumous rewards and punishments, and his goodness required that those of his creatures that were capable of enjoying life at all should be able to continue doing so forever more.²⁵ Just as in the pre-existence case, More argued from the common consent of nations: '*the Immortality of the Soul* is the common, and therefore natural, hope and expectation of all Nations; there being very few so barbarous as not to hold it for a Truth: though, it may be, as in other things, they may be something ridiculous in the manner of expressing themselves about it.' This, for More, constituted 'a plain Argument that it is true, according to the Light of Nature'.²⁶ It would conflict with the veracity of God if he was to give man a natural belief and a natural hope of this kind, which did not correspond to the true order of things.²⁷

A man's soul, therefore, would not merely continue to exist after the death of his terrestrial body, but could also hope to *enjoy* its continued life; or, if the man had misbehaved, to suffer a just punishment. As we already discussed in the first section of Chap. 7 (pp. 237–242), More preferred to identify the principal, defining attribute of spirit not as thought (as Descartes had done), but rather as self-activity. But, if self-activity was to be the very essence of this substance, then it would certainly need to be able to continue to act in the hereafter. A substance that could additionally receive pleasures or pains ought to be able to continue to do that too. *Antipsychopannychia*, the third part of *Psychodia Platonica*, was designed to confute the doctrine of the posthumous 'sleep of the soul', whereby the soul would indeed continue to exist during the period between the death of the body and its eventual resurrection, but would not actually do or experience anything in that time.²⁸ What purpose could there possibly be to the soul's immortality, if it was not allowed to enjoy its benefits? As More put it, 'twixt this sleepy state small difference / You'll find and that men call Mortality: / Plain death's as good as such a *Psychopannychie*.'²⁹

But, in order that the soul might be able to act and to receive pleasures and pains, both before and after its vital union with a terrestrial body, More felt that it did still

²⁴*The Complete Poems*, pp. 66b–67a (*Psychathanasia*, bk. 3, cant. 1, sts. 4–6).

²⁵*The Immortality of the Soul*, pp. 153–157 (bk. 2, ch. 18, §§5–12).

²⁶*The Immortality of the Soul*, p. 150 (bk. 2, ch. 17, §10).

²⁷*The Immortality of the Soul*, pp. 152–153 (bk. 2, ch. 18, §§3–4).

²⁸More might have picked up the term 'psychopannychia' from Calvin, who had used it as the title of a 1534 refutation of the Anabaptist doctrine of the sleep of the soul. See Berg 1989, p. 108 n. 37; Young 1994, p. 69.

²⁹*The Complete Poems*, p. 104a (*Antipsychopannychia*, cant. 1, st. 3). See also *An Explanation of the Grand Mystery of Godliness*, pp. 11–14 (bk. 1, chs. 6–7).

need to be united to some matter or other. The essential self-activity that defined the soul might perhaps have encompassed some purely immanent operations, but it more properly related to its power and propensity to animate *matter*, ‘the actuating of the Matter being the most proper and essential operation of a Soul’.³⁰ Consequently, More frowned upon the notion of wholly disembodied spirits: ‘For where there is no union with bodie, there is no operation of the Soul.’³¹ More might have been reluctant to commit himself to a firm denial that could be essentially disembodied beings, like the Platonists’ purely intellectual Noes and Henads, but he was satisfied that any such entities would be wholly unlike the kind of spirits whose nature he felt he understood: ‘for such kind of Intellectual Creatures as have nothing to do with matter, they best understand the priviledges of their own state, and we can say nothing of them.’³² (More also raised the possibility that there might be an order of immaterial beings in between souls and those supposed pure intellects, differing from the latter by having an immediate power of moving matter, but also differing from the former by not actually being vitally joined thereto. Such beings would operate merely as ‘Assistent Forms’. But, again, even though More was not prepared firmly to rule out this theory—which he regarded as Aristotelian—he did not like it very much, and he wrote that ‘a Man may well doubt’ that there were any such entities.)³³

Since More’s universe was a plenum, there was nowhere that a spirit could get entirely away from corporeal matter. From a purely geographical point of view, ‘she must be in some, because the Universe is every where thick-set with *Matter*’.³⁴ Of course, there was a difference between a spirit’s merely being co-located with a piece of matter and its being vitally united thereto. But More felt that the spirit’s essence was such as would lead it to endeavour, as best it could, to enter into an animating union with whichever piece of matter it happened to find itself penetrating. And this did not merely relate to its purely plastic functions. For those higher orders of souls that were endowed with sensation, the exercise of that power also demanded embodiment, given that sensation so crucially depended on the passive reception into the soul of an impression that originated in the body. Neither the soul nor the body could account for sensation (or imagination, or memory) by itself, but both needed to work together.³⁵ Indeed, at one point More went so far as to suggest that even the most intellectual faculties of the human soul might likewise depend on the body—specifically, on the subtle but nevertheless material ‘animal spirits’

³⁰ *Conjectura Cabbalistica*, p. 31 (*The Moral Cabbala*, ch. 2, §23).

³¹ *Two Choice and Useful Treatises*, second part, p. 124 (*Annotations upon Lux Orientalis*, upon ch. 14, pag. 121).

³² *Two Choice and Useful Treatises*, second part, p. 51 (*Annotations upon Lux Orientalis*, upon ch. 8, pag. 67). See also op. cit., p. 238 (*Annotations upon the Discourse of Truth*, The Digression). Also *The Immortality of the Soul*, p. 30 (bk. 1, ch. 8, §8), together with the note to this section (pp. 31–32); and p. 160 (bk. 3, ch. 1, §3).

³³ *An Explanation of the Grand Mystery of Godliness*, p. 24 (bk. 2, ch. 3, §1).

³⁴ *The Immortality of the Soul*, p. 159 (bk. 3, ch. 1, §2). See also p. 128 (bk. 2, ch. 15, §1).

³⁵ *The Immortality of the Soul*, pp. 106–107 (bk. 2, ch. 11, §§1–6).

within the brain—on the grounds that intellectual contemplation could be disrupted by an indisposition of those spirits.³⁶ Or (modifying this position somewhat in a later note), if the intellectual faculty of the soul did not depend on the body directly, it might nevertheless depend on the soul's own plastic faculty, which would, in turn, depend on the body, so that the intellect would still depend on the body in a more indirect way.³⁷ But if the soul's functions depended on the body, then a soul that did not continue to be united to some material vehicle or other would effectively sink into a 'psychopannychite' state of sleep, little better than outright annihilation.³⁸ 'Wherefore it is plain that the nature of the Soul is such, as that she cannot act but in dependance on *Matter*, and that her Operations are some way or other always modified thereby. And therefore if the Soul act at all after death, (which we have demonstrated she does) it is evident that she is not released from all *vital union* with all kind of *Matter* whatsoever.'³⁹

However, not just any old material vehicle would do. As we also discussed in that first section of Chap. 7, More felt that there needed to be a 'vital congruity' between the soul and its body. The latter had to be a fitly constituted instrument to support the operations of the former, with organic structures suited to its various powers. A spirit might have had the tendency to strive to animate whatever piece of matter it happened to find itself penetrating, but it would do a considerably better job of this with some structures than with others. On the other hand, More did not think that there was just one sort of body that was fit to house a soul. In fact, he felt that the soul had a *triple* vital congruity. Besides its familiar terrestrial body, he felt that a portion of air or aether would be equally well suited to supporting the soul's operations.⁴⁰ More observed that, even in its terrestrial life, the *immediate* instruments of the soul were not actually the grosser parts of the body, but were rather the animal spirits that permeated the fibres of the nerves within such parts.⁴¹ These animal spirits were at the seat of all of a man's passions and conceptions, his love, joy, grief and anger, his imagination, discourse and memory, and maybe even

³⁶*The Immortality of the Soul*, p. 159 (bk. 3, ch. 1, §2). See also p. 106 (bk. 2, ch. 11, §4).

³⁷*The Immortality of the Soul*, p. 164 (bk. 3, ch. 1, §2, note). But note that even this more watered-down view of the relation between the intellect and the body does actually conflict with things that More wrote elsewhere. He had earlier rejected any form of dependence between them in *Antipsychopannychia*: see *The Complete Poems*, pp. 105b–107b (*Antipsychopannychia*, cant. 1, sts. 19–38, especially sts. 30, 38). And, much later, he would again appear to reject it in the course of the very argument for the pre-existence of the soul that we were just discussing. To repeat: 'But for Philosophical Opinions and Theories, what have they to do with the motion of the Nerves? It is the Soul herself that judges of those abstractedly from the Senses, or any use of the Nerves or corporeal Organ.' (*Two Choice and Useful Treatises*, second part, p. 87).

³⁸See *The Immortality of the Soul*, pp. vi–vii (The Preface, §6), and Crocker 2001, pp. 79–80.

³⁹*The Immortality of the Soul*, pp. 159–160 (bk. 3, ch. 1, §2).

⁴⁰*The Immortality of the Soul*, pp. 123–137, 158–164 (bk. 2, chs. 14–15; bk. 3, ch. 1); *Two Choice and Useful Treatises*, second part, pp. 106–120 (*Annotations upon Lux Orientalis*, upon ch. 13, pag. 102); etc.

⁴¹*The Immortality of the Soul*, pp. 93–94, 124 (bk. 2, ch. 8, §§2–3; ch. 14, §3).

his intellect. But More felt that the nature of these subtle animal spirits was very much like that of air or aether. Since the soul could evidently animate such animal spirits while still in the terrestrial body, More did not think there should be any particular problem in its animating matter of a similar kind while out of it.⁴²

There was nothing especially novel about this. Pagan, Jewish and Christian thinkers alike had inclined throughout antiquity towards theories of aerial or astral vehicles for spirits, even while they were scrupulous in insisting that the substances of the spirits themselves were thoroughly immaterial.⁴³ Plotinus himself, More's principal early influence, had discussed a diaphonous 'pneuma' or celestial body wherein a soul could be clothed, in distinction from its more earthly body.⁴⁴ The eleventh-century Neoplatonist, Michael Psellus, was also a notable influence on More in his doctrine of aerial and aethereal vehicles.⁴⁵ But More did not follow either Plotinus or Psellus uncritically. Much as Plotinus might have maintained that the soul, on leaving its terrestrial body, would continue to be clothed in a subtler vehicle, he does also seem to have been of the opinion that it was possible for the soul to attain a purely intellectual state wherein it would shed all ties to matter of whatever kind—a point on which More was not persuaded. As for Psellus, his interest was chiefly (though not exclusively) in wicked aerial demons, whereas More's interests were much broader. More was equally concerned with both good and bad spirits, and equally with both human souls and those—angelic and demonic—spirits that never got placed in terrestrial bodies at all. The figure with whose position More's own had the most in common, here just as on the issue of pre-existence, was not either of them, but was instead Origen.

As far as Origen was concerned, nothing but the triune God could live without being embodied. Even though the soul itself was incorporeal, it would forever be clothed in matter of some kind or other. Perhaps this might not *always* have been the case. Maybe souls were entirely disembodied at the very first moment of their creation (all together, in the beginning). But, after an initial falling away of souls from God, it would then become impossible for them ever fully to regain the sort of independence from matter that he enjoyed. When the soul left its earthly body, it would continue to live on in the sky, now clad in a finer, subtler vehicle.⁴⁶ 'And if

⁴²*The Immortality of the Soul*, p. 198 (bk. 3, ch. 9, §1).

⁴³A brief study may be found in Dodds's edition of Proclus 1963, pp. 313–321. Verbeke 1945 presents a much fuller survey of ancient opinions; and many other studies might be cited. In addition, Ralph Cudworth shared most of his colleague's intuitions about aerial spirits, and his *True Intellectual System of the Universe*, in conjunction with Mosheim's annotations thereto, provides an extremely extensive survey of ancient opinions on the issue, which is still surprisingly useful even now. It goes without saying that both Cudworth's and Mosheim's research is *extremely* dated and needs to be handled with massive amounts of caution: but at least it provides pointers for possible further research. See Cudworth 1743, pp. 783–822 or (with Mosheim's copious notes and dissertations) Cudworth 1845, vol. 3, pp. 259–384.

⁴⁴See Tripolitis 1978, p. 64 and *passim*.

⁴⁵See, for instance, *The Immortality of the Soul*, pp. 147, 194 (bk. 2, ch. 17, §5; bk. 3, ch. 8, §3). Psellus's position is most fully set out in Psellus 1843.

⁴⁶See Tripolitis 1978, chs. 5–6.

anyone thinks', wrote Origen, 'that in this "end" material or bodily nature will utterly perish, he can provide no answer whatever to my difficulty, how beings so numerous and mighty can exist and live their life without bodies; since we believe that to exist without material substance and apart from any association with a bodily element is a thing that belongs only to the nature of God, that is, of the Father, the Son and the Holy Spirit.'⁴⁷

On the question of whether there might have been any *more* vital congruities besides the basic three (terrestrial, aerial, aethereal), More observed that the Jewish Cabbalists did in fact believe that the soul's vital congruity was five-fold.⁴⁸ Indeed, he himself was prepared to acknowledge two further congruities—but in a slightly different sense. There was the union of human souls in general with the 'divine Seed' in spiritual regeneration; and there was the special union of the body and soul of Jesus Christ with the Logos in the Incarnation. But those additional forms of union, More remarked, pertained more to distinctions of dignity and condition than to distinctions of place. With regard to places, More felt, since every part of the universe was filled with matter that was either terrestrial or aerial or aethereal, it would follow that the soul should unite itself to a suitably organised vehicle of one of these three forms.⁴⁹

More felt that the Spirit of Nature, besides being programmed to regulate the purely physical phenomena of the world, also had a special role to play in assisting souls in finding vehicles appropriate to their condition. The Spirit of Nature, wrote More, 'is as fit an Agent to transmit particular Souls, as she is to move the parts of Matter'.⁵⁰ The congruity between the soul and its prospective vehicle might not be enough actually to lead the one to the other, and so the Spirit of Nature would step in and take responsibility for attracting it into its new habitation when it happened to find itself in need of one. 'And therefore this being so apparently for the best, this Law is interwoven into the *Spirit of the World* and every particular soul, that upon the ceasing of her *Terrestrial Union*, her *Aereal Congruity* of life should immediately operate, and the Spirit of Nature assisting, she should be drest in Aereal robes, and be found among the Inhabitants of those Regions.'⁵¹ However, once the soul had arrived at and had fully penetrated the portion of air that it was going to animate, it could then be left alone to get to work on it. It would proceed to thicken and congeal this air—to 'conspissate' it. In the 1640s, More had suggested that body was in fact just fixed and conspissated spirit. By the late 1650s, he no longer held that view: he now felt that, notwithstanding their union, a spirit and

⁴⁷Origen 1973, p. 58 (bk. 1, ch. 6, §4).

⁴⁸*The Immortality of the Soul*, pp. 136–137 (bk. 2, ch. 15, §3, note).

⁴⁹*The Immortality of the Soul*, p. 135 (bk. 2, ch. 15, §3, note).

⁵⁰*The Immortality of the Soul*, pp. 126–127 (bk. 2, ch. 14, §11). See also p. 223 (bk. 3, ch. 13, §10), and *A Collection of Several Philosophical Writings*, The Preface General, p. xvi (§13).

⁵¹*Two Choice and Useful Treatises*, second part, pp. 127–128 (*Annotations upon Lux Orientalis*, upon ch. 14, pag. 125). See also pp. 105–106 (upon ch. 13, p. 101), and 124–125 (upon ch. 14, pag. 121, 122).

its vehicle were perfect opposites, not interconvertible into one another. But what the soul *did* have the power to fix and to conspissate was the air itself. By altering both the temper and the shape of its aerial vehicle, it could fashion it into the optimal support for its operations.⁵² More precisely, it would ‘*conspissate the Air by directing the motion thereof towards her, and so squeezing out a considerable part of the first and second Element may retain more Air than ordinary.*’⁵³ That is to say, the soul would condense the air, closing up its pores and expelling the subtler aethereal matter from them, so as to get more air to play with in a smaller space. The highest mode of its three-fold vital congruity was still dormant at this point: it had not yet purified itself enough to be capable of joining itself in a vital union with the aether itself, but had to make do with the air alone. Better, then, not to dilute its vehicle with stuff that it could not use.

This conspissation would serve to render the aerial vehicle visible, at least to other aerial spirits. As a result, these aerial spirits would be able to communicate with one another.⁵⁴ Indeed, they could even make themselves visible to us and proceed to communicate with us too. That would be harder, because our terrestrial eyes were not adequately adjusted to the task of discerning differences in the consistency of the air: but it might yet be possible for us to make them out if they condensed their vehicles to the utmost. Alternatively, an easier way for them to make themselves visible to us would be for them to ‘soak their Vehicles in some vaporous or glutinous Moisture or other’.⁵⁵ Thus, even though most departed souls would remain invisible to us, we would occasionally be able to make out figures in the clouds. Moreover, not only could aerial spirits make themselves visible to the eye: they could also *touch* us with their congealed vehicles. If anything, the sense of touch was rather better at discerning differences in the consistency of air than the sense of sight was. These aerial spirits, reported More, felt cold. But then, as he observed, ‘it stands to very good reason that the *Bodies of Devils*, being nothing but *coagulated Air*, should be *cold*, as well as *coagulated Water*, which is *Snow* or *Ice*; and that it should have more keen and piercing *cold*, it consisting of more subtile particles than those of *Water*, and therefore more fit to insinuate, and more accurately and stingingly to affect and touch the nerves.’⁵⁶

And this gave More another argument to use in support of the doctrine of the soul’s immortality. In addition to his more intellectual arguments, based on the essential nature of immaterial substance in general, or on the attributes of God, he also felt that he had solid, *empirical* evidence to show that a soul could exist apart from the terrestrial life. He felt that stories of apparitions were so widespread and

⁵²*The Immortality of the Soul*, p. 163 (bk. 3, ch. 1, axiome 34).

⁵³*The Immortality of the Soul*, pp. 169–170 (bk. 3, ch. 3, §2).

⁵⁴*The Immortality of the Soul*, pp. 180–181 (bk. 3, ch. 5, §§1–4).

⁵⁵*The Immortality of the Soul*, p. 192 (bk. 3, ch. 7, §8; and see the note thereto at p. 193).

⁵⁶*An Antidote Against Atheism*, p. 125 (bk. 3, ch. 12, §2). The 1712 text has ‘stingingly’, but the other editions have ‘stingingly’, so I have gone ahead and corrected it.

so well-confirmed that it would be unreasonable simply to reject them all as illusions, delusions or deliberate fabrications. Thus, for instance, he recorded out of Snellius a case ‘in *Amsterdam*, where there was also a *Sea-fight* appearing in the *Air* for an hour or two together, many thousands of men looking on’, and he observed: ‘But the *Phaenomena* of this kind, whose reports cannot be suspected to be in subserviency to any Politick design, ought in reason to be held true, when there have been many protest Eye-witnesses of them. And they being resolvable into no *natural* causes, it is evident that we must acknowledge *super-natural* ones, such as *Spirits*, *Intelligencies*, or *Angels*, term them what you please.⁵⁷ When the figure of a man appeared in the clouds, More was satisfied that what was actually being seen was the aerial vehicle of a departed soul (or an angel or demon).⁵⁸ He felt that the form and the behaviour of this vehicle demonstrated that it really was being animated by a particular immaterial substance, and an intelligent one at that, no less surely than that the same thing could be inferred from the visible actions of a man’s terrestrial body.

More was conscious that the third book of *An Antidote Against Atheism*, filled as it was with tales of such apparitions, was, as his biographer put it, ‘a *Stumbling-Block* unto some, and *Foolishness* unto others’.⁵⁹ But he defended it, writing: ‘it is not to be imputed to any vain credulity of mine, or that I take a pleasure in telling strange Stories, but that I thought fit to fortify and strengthen the Faith of others as much as I could.’⁶⁰ If the more vulgar reader, who placed all his trust in his senses, could first be induced to believe in spirits on the basis of phenomena that were perhaps preternatural but were nevertheless sensible, he might then be led from such a belief in the existence of immaterial creatures to a belief in the existence of an immaterial creator. Conversely, if such a reader could not be induced to believe in spirits, he would feel all the more confident in denying such a creator. As More observed in the closing words of *An Antidote Against Atheism*: ‘No Spirit, no God’. But, even before one arrived at the inference from the existence of spirits to the existence of God, what these ghost stories seemed to suggest was that soul could indeed outlive its terrestrial body. Consider, for instance, the tale that More related from Baronius about Marsilio Ficino. Ficino and his friend, Michael Mercatus, had been discussing immortality, and had entered into a solemn pact that whichever of them happened to die first would endeavour to appear to the other, in order to confirm the doctrine. As it turned out—and as yet unbeknownst to Mercatus—Ficino was the first to go. At the very hour of his death, he appeared at Mercatus’s window, galloping by on a white steed and crying out: ‘O, Michael, Michael, it’s true, it’s all true!’⁶¹

⁵⁷*An Antidote Against Atheism*, p. 126 (bk. 3, ch. 12, §8).

⁵⁸Compare Plato 1963, pp. 64–65 (*Phaedo*, 81c–e).

⁵⁹Ward 2000, p. 242. Ward is here alluding to 1 Corinthians 1:23. See also p. 244.

⁶⁰*An Antidote Against Atheism*, p. 142 (bk. 3, ch. 16, §17).

⁶¹*The Immortality of the Soul*, p. 140 (bk. 2, ch. 16, §6).

3 The Animal and Divine Lives

More considered it most likely that human souls were the *only* ones that could ascend into aerial vehicles. (Angels and demons were also united to such subtle vehicles, but the difference there was that they had only ever been thus united, as opposed to ascending into aerial vehicles from a prior terrestrial embodiment). Apparitions of dogs and horses in the sky were common enough sights too: but More felt that it was more likely that those visible vehicles were getting animated by rational spirits who chose, for whatever reason, to masquerade as animals, rather than being animated by the departed souls of actual dogs and horses.⁶² And yet More was not especially troubled by the notion that the spirits of dogs and horses (and maybe even the seminal forms of plants too, if there were any such particular seminal forms distinct from the Spirit of Nature) might nevertheless be immortal. It was a common opinion that allowing immaterial souls to animals would lead inexorably to their having to be acknowledged immortal, and many people (particularly among the Cartesians) shied away from the notion of animal souls for that very reason. They felt that such souls, being incapable of either moral virtue or sin, simply would not deserve either to enjoy or to suffer the everlasting pleasures and pains that immortality would naturally bring. As More told Descartes directly,

I perceive clearly what drives you to hold that beasts are machines. It is simply a way of demonstrating the immortality of our souls, which reasoning, since it assumes that the body is in no wise able to cogitate, concludes that wherever there is cogitation there needs be substance quite distinct from body, and hence immortal. From whence it follows that brutes, if they cogitate, have annexed to themselves immortal substances.

Nay but I beseech you, most discerning friend, since from this way of reasoning it is necessary to deprive living brutes of sense, or to bequeath to them immortality, why do you prefer to make of them inanimate machines rather than bodies activated by immortal souls? Especially since such a position, hardly harmonious with the phenomena of nature, plainly is unheard of until now. The opposite view, forsooth, was established and approved among the wisest men of antiquity, as witness Pythagoras, Plato, and others. And certainly it would but bring the minds of all the Platonists to persist in their sentiment about the immortality of brutes, when such a distinguished genius as yours is reduced to this dilemma—that if it does not concede immortal souls to brutes, it necessarily makes of universal animal life insensible machines.⁶³

More himself was persuaded, by a variety of considerations, that it was indeed necessary to allow immaterial souls to animals. They could move themselves spontaneously, he thought, and some of them even showed all the hallmarks of conscious thought. If the immortality or mortality of man needed to stand or fall with that of the lower orders of spirits, then he felt that it would certainly be far

⁶²See *The Immortality of the Soul*, pp. 147–149 (especially 149), and 150–151 (bk. 2, ch. 17, §§6–7, and the note to §6).

⁶³*Epistolae quatuor*, p. 65/AT 5:244–245 (More to Descartes, 11 December 1649), as translated in Cohen 1936, p. 51.

better to affirm the immortality of the latter than to deny that of the former. To the ‘perverse’ objection that, having endowed animals with indiscernible souls, he had committed himself to the notion that they should live and enjoy themselves after death, More replied in *The Immortality of the Soul*: ‘it is a thousand times more reasonable that they do, than that the Souls of Men do not.’⁶⁴

Or again, in *Psychathanasia*, having first defined soul in terms of self-motion and having attributed such souls to animals and plants, More considered the question of their immortality. He anticipated that his opponents would object that he ‘ought reject / No soul from wishèd immortalitie, / But give them durance when they are resect [i.e. cut off] / From organized corporeitie: / Thus brutes and plants shall gain lasting eternitie.’ In response, he accepted that ‘a never fading durancie’ did indeed belong to all of these ‘hid principles of life’, although he observed that only rational souls could properly grasp and fully enjoy the eternity that they were granted. He skirted around questions such as: ‘Shall Paradise / Receive the sprights of beasts? or wants it trees, / That their sweet verdant souls should thither take?’ But he denied that an established fact should be cast into doubt simply because ‘its more hid conditions shine not clearly out’.⁶⁵ More might not have been able to explain all the particular circumstances of the afterlife of animal and plant souls, if they had one at all, but he did not see any great problem in allowing that they might indeed survive the deaths of their bodies, just as man’s own soul could survive the death of his. Defending the killing of animals in order that man might be able to make use of their bodies, for food and clothing, More observed in *An Antidote Against Atheism*: ‘all the Wit and Philosophy in the World can never demonstrate, that the killing and slaughtering of a Beast is any more than the striking of a Bush where a Birds Nest is, where you fright away the Bird, and then seize upon the empty Nest. So that if we could pierce to the utmost *Catastrophe* of things, all might prove but a *Tragick-Comedy*.’⁶⁶ Maybe we were not really killing anything after all, but were merely freeing an immortal animal soul from its terrestrial vehicle. If such a soul, having departed from one body, could then unite to a new piece of organised matter, it could continue to act according to its essence as a principle of life, just as departed human souls did: ‘in beasts and men th’ affinity / Doth seem so great, that without prejudice / To many proofs for th’ immortality / Of humane Souls, the same to beasts we no’t deny.’⁶⁷

Nevertheless, More did think that there were other, crucially important differences between animal and human souls. For a start, as already noted, he thought it unlikely that animal souls should ascend posthumously into aerial vehicles as ours did. Like our souls, if theirs were going to be immortal at all, they had better carry on animating some material vehicle or other: ‘their existence would be in vain, while they were deprived of vital operation when they may conveniently have it.’⁶⁸

⁶⁴*The Immortality of the Soul*, p. 147 (bk. 2, ch. 17, §6).

⁶⁵*The Complete Poems*, pp. 50b–51a (*Psychathanasia*, bk. 1, cant. 2, sts. 46, 47, 49, 52).

⁶⁶*An Antidote Against Atheism*, p. 63 (bk. 2, ch. 8, §3).

⁶⁷*The Complete Poems*, p. 57b (*Psychathanasia*, bk. 2, cant. 1, st. 4).

⁶⁸*The Immortality of the Soul*, pp. 147–148 (bk. 2, ch. 17, §6).

A wholly disembodied existence for an animal soul would not be worthy of the name ‘life’, and consequently the mere endurance of such a soul would be no more worthy of the name ‘immortality’ than the perpetual endurance of matter itself.⁶⁹ But, as to the nature of the vehicles that animal souls would continue to animate in the hereafter, More suspected that these would only ever be terrestrial bodies—much as, over on the other side, he believed that angels and demons would only ever animate aerial or aethereal vehicles, and never terrestrial ones at all. ‘For we conceive’, as he wrote, ‘that the *Soul* of a *Brute* may be of that nature as to be vitally affected only in a Terrestrial Body, and that out of it, it may have neither *sense* nor *perception* of any thing; so as to it self it utterly perishes.’⁷⁰ Human beings, in More’s opinion, stood between the angels and the beasts, for theirs were the only souls that could actually *cross* the boundary between the aerial and the terrestrial planes, successively taking on vehicles of either constitution.

But then another important point, which—like his rejection of *Meno*-style arguments for pre-existence—also set More apart from more traditional Platonic views in this area, is that he drew a sharp distinction between the incorporations of human and animal souls *within* the terrestrial realm. Although a human soul might be created in a perfect, aethereal state, and subsequently sink from this into an aerial vehicle and then a terrestrial human body, More believed that its fall would halt at that point, and that it would persist in a *human* body until hopefully reascending once more. The notion a fall of souls from a heavenly state, as the result of their own self-degradation through the sinful use of their free wills, was not only present in Origen’s system (as already noted above), but was common enough among the other classical Platonists too, Plato himself included.⁷¹ But Origen and the others felt that a soul that continued to sin during its human life, giving itself over to its base, bestial instincts and sensual lusts, could actually sink even further down the scale, and transmigrate from the human form into the body of a beast, this degradation in its physical form mirroring a diminution in its spiritual powers. Its intellectual capacity would dwindle away effectively to nothing, and it would be left to rely entirely on the senses that had lured it into such a bestial state in the first place. Indeed, if it continued to degenerate, even its sensitive capacities would diminish, and the only powers that would continue to operate within it would be the plastic, vegetative ones. Accordingly, it might even sink into the body of a plant.

Thus, in a fragment preserved by Saint Gregory of Nyssa (in *De anima et resurrectione*, 112c), Origen claimed that:

by some inclination towards evil these souls lose their wings and come into bodies, first of men; then through their association with the irrational passions, after the allotted span of human life they are changed into beasts; from which they sink to the level of insensate nature. Thus that which is by nature fine and mobile, namely the soul, first becomes heavy

⁶⁹See *The Immortality of the Soul*, p. 112 (bk. 2, ch. 12, §1).

⁷⁰*An Antidote Against Atheism*, p. 207 (Appendix, ch. 10, §7).

⁷¹See, for instance, Plato 1963, pp. 65, 496, 1171 (*Phaedo*, 81e–82c; *Phaedrus*, 249b; *Timaeus*, 42b–c).

and weighed down, and because of its wickedness comes to dwell in a human body; after that, when the faculty of reason is extinguished, it lives the life of an irrational animal; and finally even the gracious gift of sensation is withdrawn and it changes into the insensate life of a plant. From this condition it rises again through the same stages and is restored to its heavenly place.⁷²

Plotinus agreed with this:

Those that have maintained the human level are men once more. Those that have lived wholly to sense become animals—corresponding in species to the particular temper of the life—ferocious animals where the sensuality has been accompanied by a certain measure of spirit, gluttonous and lascivious animals where all has been appetite and satiation of appetite. Those who in their pleasures have not even lived by sensation, but have gone their way in a torpid grossness, become mere growing things, for only or mainly the vegetative principle was active in them, and such men have been busy be-treering themselves.⁷³

As we saw in Chap. 7, More's own friends, Anne Conway and Francis Mercury van Helmont also adopted such a theory. Indeed, they held that the soul could actually fall further than this, relinquishing even its vegetative powers and becoming a physical monad for a while; but thereafter rising back out of this state of utter dullness and becoming a spirit once more in the fullest sense of the term. But More could not bring himself to accept any of this.

In *The Immortality of the Soul*, More rejected the notion that a human soul could descend into a plant, albeit only in passing, in a different context, and without any real discussion. He began by observing that, although the soul might be separated from its terrestrial body, it would never be released from all vital union with matter, and he claimed that this was the general opinion of the Platonists. He acknowledged that Plotinus did hold a dissenting view, maintaining instead that the most divine souls might at last be 'perfectly unbarred of all Matter'. But this opinion, wrote More, 'I look upon as a fancy proceeding from the same inequality of temper, that made him surmise, that the most degenerate Souls did at last sleep in the bodies of Trees, and grew up merely into *Plantal life*. Such fictions as these of fanciful men have much depraved the ancient *Cabbala*, and sacred Doctrine which the *Platonists* themselves do profess to be *theoparadoton*, a holy *Tradition* received from the mouth of God or Angels.'⁷⁴

As to whether it might at least be able to descend into a beast, More similarly disavowed that opinion in *Conjectura Cabbalistica*: but, again, only in passing. There, he wrote:

As for citing the *Heathen Writers* so frequently; you are to consider, that they are the Wisest and the most Vertuous of them, and either such as the Fathers say, had their Philosophy from *Moses* and the Prophets, as *Pythagoras* and *Plato*, or else the Disciples or Friends of these Philosophers. And therefore I thought it very proper to use their Testimony in a thing

⁷²Origen 1973, p. 73 (bk. 1, ch. 8, §4). On the origins of this particular passage, see pp. 72–73 n. 8, and 73 n. 2.

⁷³Plotinus 1992, p. 210 (enn. 3, tr. 4, ch. 2). See Tripolitis 1978, for a thorough comparative examination of these ideas, as they were handled by Plotinus and Origen.

⁷⁴*The Immortality of the Soul*, p. 159 (bk. 3, ch. 1, §2).

that they seemed to be so fit witnesses of for the main, as having receiv'd the *Cabbala* from the ancient Prophets; though I will not deny, but they have mingled their own fooleries with it, either out of the wantonness of their Fancy, or mistake of Judgment: Such as are the Transmigration of Humane Souls into Brutes; An utter abstinence from Flesh; Too severe reproaches against the Pleasures of the Body; Vilification of Marriage, and the like: which is no more Argument against the main drift of the *Cabbala*, than unwarrantable superstitious Opinions and Practices of some deceived Churches, are against the solid grounds of Christianity.⁷⁵

In More's system, the souls of animals and—if there were any—the distinct seminal forms of individual plants were wholly distinct orders of spirit from human souls, and were in no way interconvertible with them.

The thing that defined human souls as such, and set them apart from the orders of spirits both above and below, was the fact that they were uniquely endowed with a double nature. Human souls were both divine like the angels and animal like the beasts, and they found themselves tugged in both directions by contrary motivations.

More's fullest discussion of the animal and the divine lives appeared in the second book of *An Explanation of the Grand Mystery of Godliness*, where he described them as follows:

we say first in general, That the *Animal life* is that which is to be discerned in *Brutes* as well as in *Men*, which at large consists in the *Exercise of those Senses, and all those Passions that Nature has implanted in them*, either for the *good* of them in *particular*, or for the *Conservation* of their *Species*. . . . The general *Root* of these questionless is *Self-love*, which though it sound odiously (as it ought to do taken in the worst sense) amongst *Men*, yet it is a right, and requisite Property of life in every brute *Animal*. . . . And the *Root* having no poison in it, the *Branches* in themselves are pure and innocuous. Which *Branches* are all the *Animal Passions*, such as *Anger, Fear, Sorrow, Joy*, all the necessary *Desires* of the *Body*, to keep it in *Being*, such as are *Hunger, and Thirst, and Sleepiness*.⁷⁶

More needed to stress that none of this was inherently evil, because he wished to maintain that there was no sin at all in the beasts, who were exclusively governed by this animal life. Indeed, even in man, there was nothing wrong with pursuing the animal life with moderation. On the contrary, it was absolutely necessary for a man's survival that he should attend to the needs of his body. Sin only arose when a man failed to strike the appropriate balance between the two poles of his double nature, and elected to pursue the animal life at the expense of the divine.

As for the divine life, the root of that one was 'an *Obediential Faith and Affiance in the true God, the Maker and Original of all things*', and the three chief branches that sprung from this root were *Humility, Charity and Purity*.⁷⁷ More defined these three 'divine virtues' in the following terms:

By *Humility* I understand such a Spirit or gracious Property in the Soul of Man or any Intellectual Creature, as that hereby he does sensibly and affectionately attribute, all that he has or is or can do, to God the Author and Giver of every good and perfect gift. . . .

⁷⁵*Conjectura Cabbalistica*, pp. 37–38 (Preface to *The Defence of the Threefold Cabbala*, §3).

⁷⁶*An Explanation of the Grand Mystery of Godliness*, p. 32 (bk. 2, ch. 9, §§1, 2, 3).

⁷⁷*An Explanation of the Grand Mystery of Godliness*, pp. 36–37 (bk. 2, ch. 12, §§1, 2).

By *Charity* I understand an Intellectual Love, by which we are enamoured of the *Divine Perfections*, such as his *Goodness, Equity, Benignity*, his *Wisdom* also, his *Justice* and his *Power*, as they are graciously actuated and modified by the forenamed Attributes....

By *Purity*, I understand a due Moderation and Rule over all the Joys and Pleasures of the Flesh, bearing so strict an Hand, and having so watchful an Eye over their subtile Enticements and Allurements, and so firm and loyal Affection to that *Idea* of Celestial Beauty set up in our Minds, that neither the Pains of the Body, nor the Pleasures of the *Animal* life, shall ever work us below our Spiritual Happiness, and all the competible Enjoyments of that Life that is truly *Divine*. And this conspicuously is contain'd whatever either *Moral Temperance* or *Fortitude* can pretend to.⁷⁸

In a human soul, these moral and intellectual inclinations battled constantly with the baser sensual drives of the animal life, and the subject would perfect or degrade himself by freely choosing one path or the other. Indeed, as far as More was concerned, the freedom of the human soul *depended* precisely on its thus having contrary impulses to choose between. Wherever there was unanimity, he felt, there could be no free will.

The beasts, meanwhile, had only one set of motivations, which they instinctively followed without ever wavering from the path that they had been allotted. Even though More was willing to allow that immortality might be attributed to the souls of beasts, what he definitely did *not* allow was that they could ever expect salvation or spiritual conversion. Such aspirations were the privilege of human souls alone: and here was the reason why. A beast could act neither virtuously nor viciously, precisely because the notions of virtue and vice only made sense against a backdrop of competing impulses. Human souls, given their double nature, had the choice of following either their spiritual or their animal urges. But a beast could not spurn its bestial nature in favour of some other nature, because it did not *have* another nature to follow. Consequently, it would never be able to perfect itself, or to achieve spiritual regeneration and salvation. There was nothing that an animal could do to earn for itself the spark of divinity that was proper to man and angels, and consequently a unipolar animal soul could never transform itself into a human soul. But then More also believed that a bipolar human soul could never *lose* this spark altogether—although it might become greatly attenuated through sin—and hence it could never transform itself into an animal soul. It was, therefore, only natural to expect that it would never enter the body of a beast either.

4 The Fall and Rise of the Soul

Notwithstanding his disagreement about whether the human soul would ever assume the form of an animal or plant, More did agree with Origen and the other Platonists that its complete life-cycle would involve a gradual falling away from God, followed by and a subsequent reascent and—we hope—a final reunion with him.⁷⁹

⁷⁸*An Explanation of the Grand Mystery of Godliness*, p. 37 (bk. 2, ch. 12, §§3, 4, 5).

⁷⁹Again, for a thorough examination of these ideas in both Plotinus and Origen, see Tripolitis 1978.

The place where the specific relevance of man's double nature in this process is most fully discussed is in *Conjectura Cabbalistica*. Let us start at the beginning.

'In the beginning, God created the heaven and the earth.' We already saw in Chap. 3 that More understood the formless 'earth' of the first day to symbolise 'the *Potentiality or Capability of the Existence of the outward Creation*', i.e. the Hyle out of which corporeal matter would subsequently be drawn into actuality. As we then saw in Chap. 9, the symbolical 'heaven' was supposed to signify the '*whole comprehension of Intellectual Spirits, Souls of men and beasts, and the Seminal forms of all things, which you may call, if you please, The World of Life.*'⁸⁰ But this means that there was a disanalogy between the physical and spiritual worlds. All of the spirits that would ever exist seem to have been immediately made actual on the first day, while the physical world was still only in potentiality. It follows from this that, on this first day, these spirits did not yet have any vehicles to animate. On the second day, God did then make the firmament, a heaven of actual aethereal matter, so that his spiritual creatures might have something in which to clothe themselves, and something perfectly sublime at that.⁸¹ But the terrestrial earth was only produced later, on the third day, and only after that could plant, animal and human bodies be placed upon it, with vital congruities appropriate for the reception of different orders of spiritual creatures. And thus it was that man arose out of the earth—or, more precisely, fell down into it out of a higher, more aethereal state.

For God had so contriv'd, by his infinite Wisdom, that Matter thus or thus prepar'd should, by a *Vital congruity*, attract proportional Forms from *the World of Life*, which is everywhere nigh at hand, and does very strongly inequitate the moist and unctuous Air. Wherefore after this manner was the *Aereal or AEthereal Adam* convey'd into an Earthly body, having his most conspicuous residence in the Head or Brain: And thus *Adam* became the Soul of a *Terrestrial living Creature.*⁸²

Thus, the order of creation as set out in Genesis—and as symbolically reinterpreted by More—seemed to back up his contention that man's soul possessed an aethereal vehicle *before* it came to occupy a terrestrial one. (Although it is important to remember that these six 'days' were themselves treated in the philosophical cabbala as numerological symbols, not denoting a sequence of temporal events so much as reflecting the natures of the various things said to be produced on each).⁸³

When each human soul was first created, and still resided in that most heavenly realm, it led the divine life to the full. 'For *Adam* was first wholly *AEthereal*, and placed in Paradise, that is, in a happy and joyful condition of the Spirit; for he was placed under the invigorating beams of the *Divine Intellect*, and the Sun of Righteousness then shone fairly upon him.'⁸⁴ For More, the Biblical story of Adam's fall in the Garden of Eden symbolised a fall that each and every one of us underwent *personally*.

⁸⁰ *Conjectura Cabbalistica*, p. 11 (*The Philosophick Cabbala*, ch. 1, §1).

⁸¹ *Conjectura Cabbalistica*, p. 13 (*The Philosophick Cabbala*, ch. 1, §8).

⁸² *Conjectura Cabbalistica*, p. 17 (*The Philosophick Cabbala*, ch. 2, §7).

⁸³ *Conjectura Cabbalistica*, p. 79 (*The Defence of the Philosophick Cabbala*, ch. 1, on vers. 9).

⁸⁴ *Conjectura Cabbalistica*, p. 17 (*The Philosophick Cabbala*, ch. 2, §8).

We were all individually created in that same aethereal paradise, together in the beginning. Given that, in this first state, we did not have terrestrial bodies at all, we did not suffer the passions that were associated with the needs of such bodies. We were free of the pangs of hunger, thirst and sleepiness, for instance. We had no sexual lusts, for there was not yet any notion of copulation and reproduction with other beings: our celestial bodies were too perfect ever to wear out and die, and therefore there was no need for the generation of new bodies out of old. Our intellect was also perfect (symbolised by the fact that Adam was able to name things according to their natures), and the only love we had was an intellectual love of our creator. All in all, we were paragons of Purity, Humility and Charity. But then we strayed from the path.

We were already drawing a tremendous amount of joy from our intellectual contemplation of God alone. But he loved us so much that he wanted us to receive even more joy than that. To this end, 'God indued the Soul of Man with a Faculty of being united with vital joy and complacency to the Matter, as well as of aspiring to an Union with God himself'.⁸⁵ And this additional joy that we could now draw from the created world, over and above that which we had already been getting through divine Charity, was worthy enough in itself. The problem for us was that it was seductive. We discovered temptation, and we abused our free will by choosing to hand ourselves over to it immoderately.

More (writing, let us not forget, some centuries before modern notions of sexual equality) considered the sensual, animal element in the human soul to have a feminine character, while its intellectual, divine side was purely masculine.⁸⁶ It will be recalled that, in the Biblical story, it was Eve, rather than Adam himself, who first succumbed to temptation. More interpreted this, via the symbolism of the philosophical cabbala, to mean that it was the animal life and the pleasures of the body that caused each and every one of us individually to fall. One of the angels appeared to man in his aethereal paradise, and informed him that God was holding him back from his true potential. If man opted to act out of self-love instead of resting in the intellectual love of God alone, the serpent explained, he had the capacity to become as great as God himself.

Now the *Feminine* part in *Adam* was so tickled with this Doctrine of the *old Deceiver*, that the *Concupiscible* began to be so immoderate as to resolve to do any thing that may promote pleasure and experience in things, and snatch'd away with it *Adam's* Will and Reason, by his heedlessness and inadvertency. So that *Adam* was wholly set upon doing things at random, according as the various toyings and titillations of the lascivient *Life of the Vehicle* suggested to him, no longer consulting with the Voice of God, or taking any farther aim by the Inlet of the Divine Light.⁸⁷

Even once God had provided us with the feminine, animal side of our nature, in order to allow us to enjoy creation, we might yet have been able to continue in an

⁸⁵ *Conjectura Cabbalistica*, p. 19 (*The Philosophick Cabbala*, ch. 2, §20).

⁸⁶ *Conjectura Cabbalistica*, p. 19 (*The Philosophick Cabbala*, ch. 2, §18).

⁸⁷ *Conjectura Cabbalistica*, p. 21 (*The Philosophick Cabbala*, ch. 3, §6).

aethereal state, if only that side could have been brought into obedience to the divine life and moderated in a state of divine Purity.⁸⁸ But we—each of us individually—made a free choice to abandon the Humility of the divine life, and to seek to place ourselves on the same level as God. We abandoned the intellectual love of God, wherein consisted Charity, and we instead handed ourselves over to self-love and the impulses of the lower part of our natures. As a result, by relinquishing those three divine virtues, we fell from the initial state of perfection in which we had been created.

Thereafter, we continued to exercise our lower, purely plastic faculties more and more, as we freely chose to turn our backs on our higher, intellectual faculties: and this meant our taking on coarser and coarser vehicles. For all of the symbolism that More found in Genesis, when it came to the ‘fall’ of man, he took this notion very literally indeed. Our souls truly *descended* through the regions of aether and air, down to the Earth, where they would finally animate human bodies. When Adam and Eve were described in Genesis as covering themselves with garments made out of fig leaves, this symbolised the soul’s clothing itself in terrestrial matter.⁸⁹ Aether was too thin and fluid to satisfy us, once we had decided that we would turn our backs on the divine life and follow the animal path instead. We needed something *solid*, something it would take real effort to animate, so that we might exercise our plastic faculties to the full.

Unfortunately, what we found when we arrived into the terrestrial state was that life there was a pretty miserable affair, compared with the state that we had formerly enjoyed. We would be racked with painful passions, and frustrated by incapacities: but, of course, we had voluntarily brought these on ourselves through our decision to choose the animal life over the divine; and, frankly, we deserved everything we got. As Philotheus explained in the *Divine Dialogues*:

Fifthly, you are to consider, *Hylobares*, That this Terrestrial Globe is the very Dregs of the World, and the most proper Region of Evil; and that therefore to judge of the full benignity of Divine Providence by what we find here, were to measure the Happiness of some famously flourishing and excellently well-ordered City by the condition of them that live in the Hospitals or Gaols....

Sixthly, therefore, consider, That whatsoever evil Mankind groans under, they have brought it on their own Heads by their Disobedience and Revolting from the first Good, and by preferring the full swindle of the *Animal life* before the orderly Pleasures and warrantable Joys of the *Divine*.⁹⁰

And yet, luckily for us, ‘the state we are put in, is not a state *only* of punishment, but of a merciful trial’.⁹¹ The spark of divinity that was in the human soul would

⁸⁸*Conjectura Cabbalistica*, p. 22 (*The Philosophick Cabbala*, ch. 3, §13); see also p. 28 (*The Moral Cabbala*, ch. 1, §§29–30).

⁸⁹*Conjectura Cabbalistica*, p. 21 (*The Philosophick Cabbala*, ch. 3, §7).

⁹⁰*Divine Dialogues*, pp. 232–233 (dial. 3, §23). The 1713 edition actually has the word ‘Goals’: I have corrected this misprint to ‘Gaols’, following the 1668 edition. Cf. p. 23 n. 76 above!

⁹¹*Two Choice and Useful Treatises*, second part, p. 28 (*Annotations upon Lux Orientalis*, upon ch. 5, pag. 46).

never be extinguished altogether, no matter how attenuated it might become and no matter how little regard the person might choose to give it in comparison with his animal impulses. A human soul, unlike that of a beast, always had the opportunity to reform, to heed the guidance of the divine principle within itself, and thereby to regenerate itself. When the human soul did opt to reform itself, and to act in Humility, Charity and Purity once more instead of continuing to follow the impulses of the animal life, it would gradually reascend. Through successive deaths and transmigrations, it would abandon its terrestrial body in favour of, first, an aerial vehicle and then an aethereal one. Just as its fall to Earth had been a literal descent as well as a symbolic one, it would literally rise up into the atmosphere, and pass from thence into the aether of the heavens. We would be in a position to devote more and more of our attention to our higher, more intellectual faculties, as we stopped expending so much of our energy in the lower, plastic operations of our souls. Apprehending the joys of Charity ever more clearly, we would leave the animal life behind us with ever-increasing resolve, until we were finally able to achieve a full reconciliation with our Creator, and could bask in the intellectual love of God forever more.

More felt that nature made no leaps, and he regarded the aerial life as a necessary stopping-off post on a soul's journey between the terrestrial and the aethereal, and in each direction. 'There are three *Vital Congruities* belonging to the *Plastick* of the Soul, and they are to awake orderly, that is, to operate one after another downward and upward, that is to say, In the lapse, the *Aereal* follows the *AEthereal*, the *Terrestrial* the *Aereal*. But in their Recovery or Emergency out of the lapse, The *Aereal* follows the *Terrestrial*, and the *AEthereal* the *Aereal*.'⁹² And he actually went into considerable detail about what the soul's aerial existence was like.

He discussed, for instance, the shapes of aerial vehicles, suggesting that they would generally be human-shaped. This was not only true of those departed souls that had once had terrestrial bodies of the same form, but was also true of the angels, who had never done so: 'for my own part I do believe that Angels have naturally both a *plastick* and *humane shape*'.⁹³ This was not just some generic human shape either. Rather, each spirit 'will transform her Vehicle into one constant likeness, unless she disguise her self on set purpose. That is, the *Plastick* power of every Soul, whether of Men or of the other *Genii*, does naturally display it self into a different modification of the *Humane shape*, which is the proper Signature of every particular or individual person.'⁹⁴ Although there was no real distinction of gender among aerial spirits—with no reproduction in that realm, there was longer any need for it—the outward forms of their vehicles would continue to display male and female features. As for their beauty, that would be determined by their moral quality. If ever

⁹²*Two Choice and Useful Treatises*, second part, p. 124 (*Annotations upon Lux Orientalis*, upon ch. 14, pag. 121). Elsewhere, More was slightly more circumspect, writing merely that 'few or none attain to the *AEthereal* immediately after death'. *Op. cit.*, p. 107 (upon ch. 13, pag. 107). See also *The Immortality of the Soul*, pp. 160, 161, 169 (bk. 3, ch. 1, §§3, 5; ch. 3, §1).

⁹³*An Antidote Against Atheism*, p. 176 (bk. 3, ch. 14, §4, scholium). See also *The Immortality of the Soul*, pp. 165, 168 (bk. 3, ch. 2, §2, and the note thereto).

⁹⁴*The Immortality of the Soul*, pp. 182–183 (bk. 3, ch. 5, §9).

virtue and vice were going to manifest themselves visually, More suggested, it would be in these aerial vehicles. Bad ones would be ugly, and good ones would be beautiful.⁹⁵ These distinctive appearances meant that these aerial spirits could tell one another apart, just as we do on Earth, thereby facilitating the establishment of a social order very much like our own. Through memory and conscience, each would retain a consciousness of its own personal identity.⁹⁶ Finally, More added, each departed soul would most likely retain the same name by which it had been known in this life, unless there was some special reason to change it. ‘All which things, as they are most probable in themselves that they will thus naturally fall out, so they are very convenient for the administration of Justice, and keeping of Order in the other State.’⁹⁷

More felt that he had solid, empirical evidence for this contention that aerial spirits had human figures: we could *see* them in the clouds! But he had other reasons too. He did not have any firm views on whether the soul *in itself* had any particular natural shape, or whether it was indifferent to all of them. Since he was attributing extension to the soul, while also denying that it was infinitely large, it was clear that it was going to be bounded by some definite figure or other.⁹⁸ But, he observed, ‘it is very uncertain whether there be any *peculiar Figure* natural to her, answerable to *animal shape*, or whether she be of her self of either a *Round* or *Oval* figure, but does change her shape according as occasion requires.’⁹⁹ What was evident, however, was that the particular exigencies of its terrestrial life were best served by a human form—for this was the one that it had, in fact, chosen to adopt for that life. More had discussed the intricate adaptation of the terrestrial human body in the course of his presentation of the Teleological Argument for the existence of God, maintaining that its organic arrangement was optimally suited to supporting the various operations of the soul. But then, since More believed that this soul was actually going to be doing pretty much the same things in its aerial state as it did here on Earth, it would make sense for it to mould its new vehicle into a similar structure there too.

For instance, More was satisfied that aerial spirits would have senses much like our own. Consequently, it was reasonable to suppose that their sense-*organs* would be like ours too. An aerial soul, he felt, would see in just the same way as the terrestrial soul did, by becoming vitally united to the globular particles of light that its airy eyes received. More acknowledged that, if its aerial vehicle remained a homogeneous orb, rather than being organised into a human form, it would still be able to see.

⁹⁵*The Immortality of the Soul*, pp. 194–196 (bk. 3, ch. 8, §§4–6).

⁹⁶*The Immortality of the Soul*, p. 207 (bk. 3, ch. 11, §4).

⁹⁷*The Immortality of the Soul*, p. 207 (bk. 3, ch. 11, §3).

⁹⁸More held that a soul *could* in principle contract itself to the ‘infinite real littleness’ of an atom, in which case it would presumably—like the atom itself—relinquish all shape. But ordinarily it would certainly have some shape or other.

⁹⁹*The Immortality of the Soul*, p. 165 (bk. 3, ch. 2, §2). See also p. 181 (bk. 3, ch. 5, §6). On the notion that the natural shape of the soul might be spherical, see the editorial notes in Proclus 1963, pp. 308–309, 347.

But, he explained, such a state of affairs would be less than ideal. Being entirely pervaded by those globular particles, and consequently seeing in every direction at once, it would find itself confused by a multiplication of images. ‘For if we should grant that the Soul saw in every part of her Vehicle, every Object that is near would not only seem double, but centuple, or millecuple; which would be a very ugly enormity and defacement of *Sight*. Wherefore we have, with very good reason, restrained the *Visive faculty* of the Soul in this state of *Separation*, as well as it was in the *Terrestrial Body*.’¹⁰⁰ By organising their vehicles into human form, with eyes just like ours except in that they were made out of congealed air, these souls could restrict their vision to a narrow focus, which would prove to be more useful to them in their day-to-day lives. Likewise for hearing, their plastic powers ‘may enable them to shape themselves Organs for the receiving of *Sounds*, of greater art and excellency than the most accurate *Acoustick* we read of, or can excogitate.’¹⁰¹ They were endowed with the sense of touch, and More was satisfied that they had some form of smell and taste too (and indeed that they ingested nourishing food in some manner or other).¹⁰²

Besides these senses, they also had reason, imagination, memory and the like, and they could feel love, joy, grief and anger. Such faculties in the terrestrial soul depended particularly on its animal spirits, so, since the whole of the aerial vehicle was of a nature comparable with those animal spirits, it would be abundantly suited to supporting a continuation of these functions.¹⁰³ Indeed, it would be considerably *better* suited to supporting them. Whereas the initial descent from a superior vehicle into a terrestrial body had served to wash out the memories, the opposite ascent would, if anything, serve only to strengthen them.

However, departed souls would not suddenly attain omniscience on their ascent into the air. Many of us would have already erred in the earlier aerial life that preceded this terrestrial one—those errors displaying themselves, as we saw, in the biases we instinctively brought to intellectual debates—and, equally, many of us would err in the aerial life to come. Consequently, with fallibility leading to error, and error leading to the possibility of disagreement, rival schools of philosophy would emerge in the sky just as they do here.¹⁰⁴ Departed souls would still have much to learn, and they would learn it in the same way as we do on Earth, through the use of their senses, through intellectual meditations, and through debate with

¹⁰⁰*The Immortality of the Soul*, p. 175 (bk. 3, ch. 4, §2).

¹⁰¹*The Immortality of the Soul*, p. 176 (bk. 3, ch. 4, §4). A typographical error has this page wrongly numbered as 166.

¹⁰²*The Immortality of the Soul*, pp. 176–177, 201–202 (bk. 3, ch. 4, §6; ch. 9, §§6–8). Again, a typographical error has p. 176 misnumbered as 166.

¹⁰³*The Immortality of the Soul*, p. 198 (bk. 3, ch. 9, §1). In fact, when the soul left the dying terrestrial body, it would actually take some of these animal spirits with it, carrying them out of the body through the mouth or other orifices of the head. See *op. cit.*, p. 129 (bk. 2, ch. 15, §2).

¹⁰⁴*Two Choice and Useful Treatises*, second part, pp. 84–85 (*Annotations upon Lux Orientalis*, upon ch. 10, pag. 76).

one another, on natural, mathematical, metaphysical or moral issues. And they would not only contemplate and discuss purely speculative matters—as, for instance, whether the Ptolemaic or the Pythagorean (Copernican) system was correct—but would exercise themselves in religion and devotion too.¹⁰⁵ Ultimately, More believed that—even if those of us who were still living terrestrial lives would only manage to glimpse the odd one now and then—there were actually countless millions of angels and human souls, socialising and discoursing together up in the sky, with singing, playing and dancing, and all manner of entertainment.¹⁰⁶

Now, as fanciful as More's theory of aerial spirits might seem at times—and he was the first to concede that he could not prove demonstratively that the lives of these departed souls were exactly as he suggested¹⁰⁷—he was following an estimable tradition in much of what he suggested about them. And, just as in his claims about the initial fall of the soul, his greatest inspiration in his claims about its subsequent rise was coming from Origen. Origen had likewise denied that the soul would immediately attain omniscience, but had claimed that it would continue to learn much as it had done on Earth, through experience and discourse, and through the inward exercise of its fallible rational powers. Those rational capacities would hopefully become increased and enhanced over time, but this would take a while:

I think the saints as they depart from this life will remain in some place situated on the earth, which the divine scripture calls 'paradise'. This will be a place of instruction and, so to speak, a lecture room or school for souls, in which they may be taught about all that they had seen on earth and may also receive some indications of what is to follow in the future; just as when placed in this life they had obtained certain indications of the future, seen indeed 'through a glass darkly', and yet truly seen 'in part', which are revealed more clearly and brightly to the saints in their proper times and places.¹⁰⁸

The aerial soul would operate by means of its vehicle, to interact with its aerial comrades and maybe sometimes with us too, with a view to purifying itself. The more that it perfected both its intellectual powers and its moral qualities, the further it would rise into more and more aethereal regions, acquiring an even more subtle vehicle and coming ever closer to a reunion with its supremely good, perfectly incorporeal and intellectual creator. The passage just quoted carries straight on:

If anyone is 'pure in heart' and of unpolluted mind and well-trained understanding he will make swifter progress and quickly ascend to the region of the air, until he reaches the kingdom of the heavens, passing through the series of those 'abiding places', if I may so call them, which the Greeks have termed spheres, that is, globes, but which the divine scripture calls heavens. In each of these he will first observe all that happens there, and then learn the reason why it happens, and thus he will proceed in order through each stage, following him who has 'entered into the heavens, Jesus the Son of God', and who has said, 'I will that, where I am, they also may be with me.'¹⁰⁹

¹⁰⁵ *The Immortality of the Soul*, pp. 178, 198–199 (bk. 3, ch. 4, §9; ch. 9, §§2–3).

¹⁰⁶ *The Immortality of the Soul*, pp. 199–201 (bk. 3, ch. 9, §§3–6).

¹⁰⁷ *The Immortality of the Soul*, pp. vii–viii, 158–159 (The Preface, §7; bk. 3, ch. 1, §1).

¹⁰⁸ Origen 1973, p. 152 (bk. 2, ch. 11, §6).

¹⁰⁹ *Ibid.*

The speed and efficiency of the soul's rise through these various levels thus depended on its own intrinsic degree of perfection. A wicked soul—or, for that matter, a stupid one—would fail to rise, and might even fall back down again. The new body in which it came to be housed would reflect its imperfection: thus, whereas the saints' bodies were bright and glorious, the wicked were clothed in murky and black bodies.¹¹⁰ But a more perfect soul would indeed rise and, since its vehicle gave it the opportunity to continue to learn and to improve its mind, and likewise to continue to do good works and to improve its moral character, this ascent could continue through ever higher regions. As it entered each new level, it would change its vehicle into one that was more fit for life in that level, permitting it to function in a manner appropriate to the state in which it found itself. Origen distanced himself from pagan theories about the transmigration of souls, indicating that his own notion of the resurrection of the soul in a celestial body had come to him via other considerations:

Our teaching on the subject of the resurrection is not, as Celsus imagines, derived from anything that we have heard on the doctrine of metempsychosis; but we know that the soul, which is immaterial and invisible in its nature, exists in no material place, without having a body suited to the nature of that place. Accordingly, it at one time puts off one body which was necessary before, but which is no longer adequate in its changed state, and it exchanges it for a second; and at another time it assumes another in addition to the former, which is needed as a better covering, suited to the purer ethereal regions of heaven.¹¹¹

Although Origen might not have gone into quite as much detail about the singing and dancing of aerial spirits, his basic scheme was exactly the same as More's.

But, for both Origen and More, the air was not the final destination for a soul, but was merely a step on the way to the true heavens that lay beyond the Earth's atmosphere. The more that the soul perfected its moral and intellectual character, the higher it would rise. Inferior spirits would be confined to the lower regions of the atmosphere—indeed, More agreed with Origen that the really bad ones might be stripped of their aerial status altogether, and be newly remanded in the prison of terrestrial matter once more.¹¹² But the more that a soul achieved wisdom, moral perfection and purity of spirit inwardly, the more attenuated its vehicle would accordingly become outwardly, and it would rise into the upper atmosphere. Finally, if it became perfect enough to merit such a change, it would leave the air behind altogether, and take on an aethereal vehicle.

This was the highest stage of the three-fold vital congruity of the soul. After gross terrestrial matter and fluid air, the soul could eventually achieve a union with a quantity of the purest and most sublime aether. In its aethereal vehicle, it would continue to have all of the same cognitive faculties that it had enjoyed in its aerial form. Indeed, as its vehicle became more and more heavenly, these would be still further enhanced. More made it an axiom that, the purer its vehicle, the more quick

¹¹⁰Origen 1973, p. 145 (bk. 2, ch. 10, §3—sic, but actually §8).

¹¹¹Origen 1965, p. 623b (bk. 7, ch. 32).

¹¹²*The Immortality of the Soul*, pp. 244–245 (bk. 3, ch. 17, §15).

and perfect the perceptive faculties of the soul would become.¹¹³ Even in the terrestrial life, as he observed in defence of this claim, ‘the quickness of Hearing, Seeing, Tasting, Smelling, the nimbleness of Reminiscency, Reason, and all other *Perceptive* Faculties, are advanced or abated by the clearness, or foulness and dulness of the *Spirits* of our Body; and that Oblivion and Sottishness arise from their thickness and earthiness, or waterishness, or whatsoever other gross consistency of them’.¹¹⁴ It was in the aethereal life that these powers should reach the pinnacle of perfection, for there the vehicle was entirely constituted by the most subtle matter. Moreover, because it was the most fluid of the three, the aethereal vehicle should also be the one over which the soul had the greatest dominion, in its abilities to mould and to move the matter. It was not easy to achieve this state of perfection: only the very purest individuals would be admitted into the aethereal heavens, and baser souls might never make it there at all. But those who were thus admitted might be lucky enough to have a ‘divine plastic faculty’ awakened in them that would bind them so closely to their aethereal or celestial vehicle that they would never again lapse.¹¹⁵ They would enjoy the sublime and tranquil pleasures of Heaven forever thereafter, in perfect purity, and would never again face the comparative hardships of the aerial life, and still less face the torments of the flesh.

Indeed, this aethereal vehicle, together with the improved powers of locomotion that the soul had over it, really would prove the salvation of the individual in question, in a pretty literal sense. More considered it entirely possible that the Sun might one day be extinguished. All life on Earth would then perish—or, at the very least, suffer tremendously—for want of the nourishing light and warmth that the Sun provided; and not even aerial spirits would be able to escape these effects. But it had been a theme of More’s philosophy, as early as the 1640s and as late as the 1680s, that the distant stars were actually so many suns just like our own.¹¹⁶ The privilege of an aethereal soul was that it had such a locomotive power over its celestial vehicle that it could easily pass out of our solar system altogether and journey into another: ‘By the improvement of which Privilege she may also, if she please, pass from one *Vortex* into another, and receive the warmth of a new *Vesta*, so that no fate imaginable shall be ever able to lay hold upon her.’¹¹⁷

But, for those of us left behind, there was an even more worrying prospect than the extinction of the Sun. More expected that, sooner or later—and, bearing in mind his Millenarianism, probably sooner—the Earth itself was going to be destroyed in a great conflagration. If nothing else, he had the authority of scripture to back him

¹¹³*The Immortality of the Soul*, p. 162 (bk. 3, ch. 1, axiome 33).

¹¹⁴*The Immortality of the Soul*, p. 162 (bk. 3, ch. 1, §9).

¹¹⁵*Two Choice and Useful Treatises*, second part, pp. 50–51, 81–82 (*Annotations upon Lux Orientalis*, upon ch. 8, pag. 67, and ch. 9, pag. 75).

¹¹⁶See *The Complete Poems*, pp. 92b–93a, 93a–94a (*Democritus Platonissans*, sts. 18–19, 23–32); *Two Choice and Useful Treatises*, second part, p. 52 (*Annotations upon Lux Orientalis*, upon ch. 9, pag. 69).

¹¹⁷*The Immortality of the Soul*, p. 254 (bk. 3, ch. 19, §5). See pp. 252–255 (§§1–6).

up in this: ‘But the day of the Lord will come as a thief in the night; in the which the heavens shall pass away with a great noise, and the elements shall melt with fervent heat, the earth also and the works that are therein shall be burned up’ (2 Peter 3:10). Anything on the Earth, or even just close to it, would be consumed in the flames: but perfected spirits in the aethereal region would be safe. ‘For the destroying of the *Aethereal Regions by Fire,*’ wrote More, ‘is as foolish a Fancy as the sentencing of the Eele to be drown’d, because the matter of the *AEther* is too fine and subtile for *Fire* to rage in, it being indeed nothing but a pure Light or Fire it self.’¹¹⁸ Aethereal beings, having left the compass of the Earth to enter into more distant and more tranquil regions of outer space, would remain untroubled by the horrors that were being unleashed upon the wicked spirits below. Both terrestrial and aerial vehicles, by contrast, would inescapably fall victim to the inferno.

Of course, that was just the *vehicles*, not the souls themselves. More surveyed five opinions about what would befall the spirits that inhabited those terrestrial and aerial vehicles. First, on account of the soul’s indiscernibility, he could not accept that they would disintegrate and be destroyed by the conflagration along with their bodies. Second, it jarred with his conception of the divine nature to suppose that God should intervene to annihilate the soul at the same moment as the body was destroyed by the fire. Third, he could not accept that the soul would relinquish all union with matter and sink into something akin to a psychopannychite state of sleep from which it would never again awaken. If the soul did not do anything throughout the infinite time that was going to follow the conflagration, there would be no point in its existing at all. Equally, fourth, he could not accept that it would relinquish all union with matter and yet continue to experience ‘furious tormenting dreams’, because he did not believe that it could experience anything at all except through its vital union with matter. Finally, he viewed with scepticism the notion that the spirits would initially separate themselves from matter, and would indeed fall asleep for a while, but that the Earth would meanwhile gradually reconstitute itself so that, when it finally became habitable again, the spirits could reawaken, and re-enter whatever form of terrestrial or aerial vehicles they happened to deserve. Although there did not seem to be anything particularly contradictory in this, More felt that it was ultimately just a dream of the Stoics with no actual arguments or solid evidence to back it up.¹¹⁹

In the end, More decided that he would withhold judgment on the question of the future state of terrestrial and aerial souls after the conflagration: but he reiterated the more important point about the aethereal souls.

We see therefore how desperately undemonstrable the condition of the Soul is after the *Conflagration* of the Earth, all these five Opinions being accompanied with so much lubricity and uncertainty. And therefore they are to be look’d upon rather as some Night-landskip to feed our amused Melancholy, than a clear and distinct draught of comprehensible Truth to inform our Judgment.

¹¹⁸*The Immortality of the Soul*, p. 247 (bk. 3, ch. 18, §3).

¹¹⁹*The Immortality of the Soul*, pp. 248–250 (bk. 3, ch. 18, §§7–13). See also the discussion in Ward 2000, p. 298.

All that we can be assured of is, That those Souls that have obtained their *AEthereal Vehicles* are out of the reach of that sad fate that follows this *Conflagration*; and, That the *wicked Souls of Men and Demons* will be involved in it.¹²⁰

The lesson to be drawn from this was that we should do everything in our power to escape the Earth and ascend into the aethereal heavens. Only there would we be safe from the coming conflagration. If we stayed here to endure it, then, notwithstanding the uncertainty about precisely what would happen to our souls after it was all over, one thing that was abundantly clear was that having our bodies incinerated was going to *hurt*. In Heaven, we would enjoy the purest and most sublime pleasures of the intellect. On Earth, our flesh—even aerial flesh—would be seared from our bones. And thus More was able to provide a firm foundation for morality. God had instructed us on how to improve our souls, through Charity, Humility and Purity, and how thereby to improve the vehicles to which our souls were united. We now had a major *incentive* to follow those divine laws, for the sake of our own future well-being, never mind anything else. If we did not perfect ourselves, and escape into the heavenly aethereal realm, then we would surely end up suffering the most unimaginably appalling torments.

¹²⁰*The Immortality of the Soul*, p. 251 (bk. 3, ch. 18, §§14–15).

Chapter 11

Editions Cited

Except where stated...

Where published English translations exist, of works written in other languages, I have used these. In cases where the cited source is not in English, the translation will be my own. Also, More and other authors would occasionally insert the odd word or phrase in Greek (or, every now and then, Hebrew): when I have quoted passages with such words included, I have transliterated them into Roman characters.

The 'a's and 'b's that I have appended to some page numbers indicate left- and right-hand columns. But, in addition to page numbers, I have also included book/chapter/section numbers wherever possible or appropriate, for ease of reference to other editions. Plato and Aristotle also get their Stephanus and Bekker numbers. For Newton's works, I have mainly used Andrew Janiak's 2004 collection, *Philosophical Writings*: but I have also provided parallel references to other standard editions. Likewise for Cudworth's *True Intellectual System of the Universe*: I have worked from Birch's 1743 edition (which is paginated almost identically with the first edition of 1678), but I have also provided references to the 1845 Harrison/Mosheim edition. For Descartes, I have used the Miller and Miller translation of his *Principles of Philosophy*; but, both for that and for Descartes' other works, I have also provided both the AT and CSM/CSMK references. And, because the abbreviations 'AT' and 'CSM'/'CSMK' are just so eminently familiar to Descartes scholars, these are what I have used:

AT=*Oeuvres de Descartes*. Edited by Charles Adam and Paul Tannery. Paris: J. Vrin, 1996.

CSM=*The Philosophical Writings of Descartes*. Translated by John Cottingham, Robert Stoothoff, Dugald Murdoch. Cambridge: Cambridge University Press, 1984–1985.

CSMK=*The Philosophical Writings of Descartes, volume III: The Correspondence*. Translated by John Cottingham, Robert Stoothoff, Dugald Murdoch, Anthony Kenny. Cambridge: Cambridge University Press, 1991.

Apart from these, and apart from More's own works, other works have been specified by author and year. But, given the obvious centrality of More to the present study, and given that years of publication (since I am mostly using the final editions rather than the first) or even abbreviations (bearing in mind just how many different *Antidotes*, *Enchiridions*, *Collections* and *Brief Discourses* More wrote) are likely to be more misleading than helpful, I have specified More's own works by their actual titles, as listed below.

1 Works of Henry More

This is not intended as an exhaustive bibliography, but merely an indication of the editions actually used in the present work. A full bibliography, comprising More's own works, relevant contemporary works, and secondary literature, may be found in Crocker 2003. (Crocker 1990c is another, earlier version thereof).

- A Brief Discourse of the Real Presence of the Body and Blood of Christ in the Celebration of the Holy Eucharist*. London: Walter Kettilby, 1686.
- A Brief Discourse of the True Grounds of the Certainty of Faith in Points of Religion*. Included in the *Theological Works*, as below, pp. 765–770. First published in 1668 with the *Divine Dialogues* (pp. 577–591 in the 1713 edition thereof).
- A Brief Reply to a Late Answer to Dr. Henry More his Antidote Against Idolatry*. London: J. Redmayne, for Walter Kettilby, 1672.
- A Collection of Aphorisms. In Two Parts*. London: J. Downing, 1704.
- A Collection of Several Philosophical Writings*. London: Joseph Downing, 1712. The so-called fourth edition, following the so-called second edition of 1662. This 1712 edition provides the most complete texts of More's most important English (and some Latin) philosophical works, swelled by the notes and scholia that he had added in the 1679 *Opera omnia* (vol. 2.2). For the works included in this volume (as indicated below), I am using this 1712 edition unless otherwise stated.
- A Modest Enquiry into the Mystery of Iniquity*. Included in the 1708 *Theological Works*, as below, pp. 387–515 (though a separate title-page gives a date of 1705 for this particular work). First published 1664.
- An Antidote Against Atheism*. Included in *A Collection of Several Philosophical Writings*, as above, with its own separate pagination. First published 1653, followed by a second edition (including, for the first time, the Appendix) in 1655. Although I have generally used the 1712 version of the text, there are just a couple of places, duly marked, where I have had occasion to refer to the 1655 version (London: J. Flesher, for William Morden).
- An Antidote Against Idolatry*. Included in the *Theological Works*, as below, pp. 771–823. First published as *A Brief Discourse of Idolatry* in 1669.
- An Explanation of the Grand Mystery of Godliness*. Included in the 1708 *Theological Works*, as below, pp. 1–383. First published 1660. Although I have generally used the 1708 version of the text, there are some places, duly marked, where I have had occasion to refer to the 1660 version (London: J. Flesher, for W. Morden).

Conjectura Cabbalistica. Included in the 1712 *Collection of Several Philosophical Writings*, as above, with its own separate pagination (though a separate title-page gives a date of 1713 for this particular work). The main body of the work was first published in 1653; the *Appendix to the Defence of the Philosophick Cabbala* was added to it in the 1662 edition of *A Collection of Several Philosophical Writings*. Although I have generally used the 1712/1713 version of the text, there are just a couple of places, duly marked, where I have had occasion to refer to the 1653 version (London: James Flesher, for William Morden).

Divine Dialogues. London: Joseph Downing, 1713. Just as in the case of the 1712 *Collection of Several Philosophical Writings*, this second edition of the *Divine Dialogues* is superior to the first (1668), for including the scholia that More added to the text in 1679.

Discourses on Several Texts of Scripture. London: J.R., for Brabazon Aylmer, 1692.

Enthusiasmus Triumphatus; or a Brief Discourse of the Nature, Causes, Kinds, and Cure of Enthusiasm. Included in *A Collection of Several Philosophical Writings*, as above, paginated continuously with *Epistolae quatuor* (below) but separately from the other works in this volume. First published 1656.

Enchiridion ethicum. First published 1667, the edition used here being the translation by Edward Southwell, published under the title *An Account of Virtue: or, Dr. Henry More's Abridgement of Morals*. London: for Benj. Tooke, 1690.

Enchiridion metaphysicum. Translated by Alexander Jacob as *Manual of Metaphysics*. Hildesheim: Georg Olms, 1995. Because More's own Latin title is a lot more widely used and recognisable than Jacob's English title, this is what I have used when referring to this work: but it is Jacob's translation that I have actually been working from, and my page references are to his edition. There is just one place, duly marked, where I have had occasion to refer to the original 1671 edition (London: E. Flesher, for William Morden).

Epistolae quatuor ad Renatum Des-Cartes (together with Descartes' responses, More's letter to Clerselier, and his *Epistola ad V.C.*). Also included in *A Collection of Several Philosophical Writings*, as above, and first published in its 1662 edition. The pagination continues directly after that of *Enthusiasmus Triumphatus*. But note that there is a fault in the pagination of this edition. The numbering goes: 57–100 (following *Enthusiasmus Triumphatus* over pp. 1–56), then 111–118, then 109–138. But the text itself is continuous; which does indeed mean that there are two quite different sets of pages with exactly the same numbers, 111–118. I have taken care in my notes to specify precisely which page I am actually citing at any given point.

Letters on Several Subjects. London: W. Onely for John Cheringham, 1694.

Observations upon Anthroposophia Theomagica, and Anima Magica Abscondita. 'Parrhesia': for O. Pullen, 1650.

Opera omnia. Note that only one of the three original volumes actually called itself by that name; but, following the practice established with Serge Hutin's reprint edition (Hildesheim: George Olms, 1966), I extend it to all three, as follows: 'vol. 1' designates the *Opera theologica* (London: for Walter Kettlby, 1675); 'vol. 2.1'

designates the *Opera omnia* (London: J. Maycock, for J. Martyn and Walt[er] Kettilby, 1679); ‘vol. 2.2’ designates the *Scriptorium philosophicorum tomus alter* (London: R. Norton, for J. Martyn and Walt[er] Kettilby, 1679).

Refutation of Spinoza. Translated (from More’s *Demonstrationis duarum propositionum... brevis solidâque Confutatio*, first published in vol. 2.1 of his *Opera omnia*, 1679) by Alexander Jacob. Hildesheim: Georg Olms Verlag, 1991.

Remarks upon Two Late Ingenious Discourses. London: for Walter Kettilby, 1676.

Synopsis Prophetica; or, the Second Part of the Enquiry into the Mystery of Iniquity. Included in the 1708 *Theological Works*, as below, pp. 517–716 (though a separate title-page gives a date of 1706 for this particular work). First published 1664.

Tetractys Anti-Astrologica. London: J.M., for Walter Kettilby, 1681.

The Apology of Dr. Henry More. London: J. Flesher, for W. Morden, 1664. Bound with the first edition of *A Modest Enquiry into the Mystery of Iniquity*, following the second part thereof (i.e. *Synopsis Prophetica*), pp. 479–567.

The Complete Poems of Dr. Henry More (1614–1687). Edited by Alexander B. Grosart (New York: AMS Press, 1967). First published in this edition: 1878. Based on the 1647 edition of More’s *Philosophical Poems*, which had in turn been based on the 1642 edition of *Psychodia [Psuchōdia] Platonica*, plus the 1646 edition of *Democritus Platonissans* and other additions.

The Immortality of the Soul. Included in *A Collection of Several Philosophical Writings*, as above, with its own separate pagination. First published 1659.

Theological Works. London: Joseph Downing, 1708. This volume provides the definitive texts of More’s most important theological works, paginated continuously. For the works contained herein, this is the edition that I am using, except where stated.

The Second Lash of Alazonomastix. Cambridge: printers to the University, 1651.

I have also referred to the following three works by their titles. Although More does not strictly qualify as their author, all three contain substantial amounts of original material from him.

Nicolson, Marjorie, ed. 1992. *Conway Letters*. New edition, revised by Sarah Hutton. Oxford: Oxford University Press. Note that Hutton’s 1992 edition includes, alongside their many other letters, More’s important 1650–1651 philosophical correspondence with Conway, which Nicolson’s 1930 edition had omitted. That particular correspondence was first published in 1977, in Alan Gabbey, ‘Anne Conway et Henry More: Lettres sur Descartes (1650–1651)’, *Archives de Philosophie* 40:379–404.

Glanvill, Joseph. 1666. *Saducismus Triumphatus*. Reprint of third edition (1689), with an introduction by Coleman O. Parsons. Ann Arbor: Scholars’ Facsimiles & Reprints. Includes several contributions by More: most importantly *The Easie, True, and Genuine Notion... of a Spirit* (being a translation of chs. 27–28 of *Enchiridion metaphysicum*), pp. 131–188; and *An Answer to a Letter of a Learned Psychopyrist* (i.e. Richard Baxter), pp. 189–253.

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