

Early Modern Accounts of Epicureanism

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Ι

The early modern influence of Epicureanism was both enormous and diffuse.¹ Many early moderns used the term 'Epicurean' to describe other people's views, but they almost never described their own views that way. Moreover, many different sorts of view were called Epicurean. In natural philosophy, identifying someone as an Epicurean often meant that they were an atomist or corpuscularian and that they restricted the properties of corpuscles to size, shape, and motion. Describing someone as Epicurean could also mean that they denied the existence of an incorporeal human soul, that they were an atheist, or that they denied divine providence. Sometimes to be an Epicurean was simply to hold that "Pleasure is the end or felicitie of man"—a view more often criticized than advocated.² Indeed, an additional difficulty in sorting out the early modern legacy of Epicureanism is that 'Epicurean' was often a term of abuse rather than a description of any particular ideology, let alone a historical position. This is because Epicureanism was associated above all with immorality and the subversion of religion.

The views that early moderns described as Epicurean were, then, quite different from the views found in the works of Epicurus and his followers. Given this, why even use the term 'Epicurean'? One answer is simple: the early moderns used it themselves, and they found it an important category as well as a useful slur. Understanding how they used this category helps us understand early modern philosophical debates.

We do not aim at an exhaustive survey of early modern Epicureanism, which would be impossible.³ Instead, we look at a few interesting and important episodes in the life of early modern Epicureanism, focusing on Epicureanism in natural philosophy.

We begin with two early moderns who had a great deal to say about ancient Epicureanism, and who—unlike almost everyone who followed them—discussed it with attention to detail, concern for textual accuracy, and a critical attitude concerning the status of the various sources for knowledge of

¹ A great deal has been written about early modern Epicureanism. One excellent overview is Wilson 2008, which focuses on the influence of Epicureanism within philosophy. Another overview is Greenblatt 2011, which argues that the rediscovery of Lucretius's *De rerum natura* explains "how the world swerved in a new direction" (11) in the Renaissance. See also Leddy and Lifshitz 2009; LoLordo 2011; Norbrook, Harrison, and Hardie 2016; and Deneys-Tunney and Moreau 2003. On the other hand, see Levitin 2016 for an argument that the influence of Epicureanism in England has been vastly overstated in the secondary literature to date.

² Barckley 1631: 10.

³ We also do not attempt to examine the availability and use of Epicurean sources, another significant project. For the rediscovery of Lucretius, see Brown 2010 and Passannante 2011. For Gassendi's engagement with Epicurean texts, see Rochot 1944. For Epicureanism in seventeenth-century Britain, see Levitin 2016. For seventeenth-century France, see Kors 2016.

early modern Epicureanism. One is the French priest, astronomer, and philosopher Pierre Gassendi (1592-1655), who devoted decades to the history of ancient Epicureanism and whose own philosophy was in many ways influenced by it. The other is the English philosopher Ralph Cudworth (1617-1688),⁴ for whom the "Atomick Atheism" of Democritus, Leucippus, and Epicurus was a leading enemy.

Looking at how Gassendi and Cudworth conceive of Epicureanism will give us a sense of what the early moderns considered important in the ancient tradition. It will also point us towards three main themes of early modern Epicureanism in natural philosophy, which we will then discuss at greater length in the following sections: atomism, materialism about the mind or soul, and the denial of providence, often accompanied by deflationary explanations of religious belief.⁵

II-Gassendi

Gassendi devoted a series of works to ancient Epicureanism: De vita et moribus Epicuri (On the life and character of Epicurus, 1647); Syntagma philosophiae Epicuri (Treatise of the Philosophy of Epicurus, 1649); and Animadversiones in decimum librum Diogenis Laertii (Notes on the Tenth Book of Diogenes Laertius, 1649). In these works, he draws on a huge number of sources. The two most important are Lucretius's De rerum natura—the single most influential source for early modern thinking about Epicureanism—and Book 10 of Diogenes Laertius's Lives of the Philosophers. But Gassendi also deals extensively with those ancient sources which he saw as the origin of misleading or unfair criticisms of Epicureanism, such as Cicero's De natura deorum, Lactantius's Divinae institutiones, and Plutarch's Adversus Colotem. A great deal of material from Gassendi's Epicurus project reappears in his massive posthumous Syntagma Philosophicum. The main goal of the Syntagma is to present Gassendi's own philosophical system—a system that has a number of Epicurean elements and which later readers described as a form of Epicureanism, although Gassendi himself disclaimed the label.⁶

Gassendi's project of constructing a positive representation of Epicurus has a number of aspects. Above all, he wants to represent Epicureanism as a serious philosophical system, like Aristotelianism and Stoicism—and ultimately to show that Epicureanism was preferable to either, both in terms of explanatory power and theological acceptability. This takes some doing, for Gassendi's contemporaries thought of Epicureanism as both dangerous and ridiculous. Gassendi tries to figure out how Epicurus's reputation for immorality had developed in the first place. He concludes that it was due to "the hatred and calumny of Zeno, Cleanthes, Chrysippus and other Stoics."⁷ He also tries to reconstruct Epicurus's lost work of epistemology, *The Canon*, in an attempt to show that

⁴ Gassendi and Cudworth were by no means the first early moderns to discuss Epicureanism at length. We begin with them rather than earlier figures like Lorenzo Valla or Erasmus because they are (relatively speaking) central figures in the canon of early modern philosophy; because examining their use of Epicureanism is a convenient way of setting up some of the main themes of early modern Epicureanism; and because their engagement with Epicurus and Epicureanism is much more overt than that of figures such as Hobbes and Locke.

⁵ Other interesting themes include the plurality of worlds, Lucretian evolution, and Epicurean epistemology.

⁶ Gassendi 1964: 1.30b.

⁷ Gassendi 1964: 5.193a.

Epicureanism was non-dogmatic and observation-based—something that would make it far superior to Aristotelianism, which had been presented and criticized in Gassendi's first book, the *Exercitationes paradoxicae adversus Aristoteleos (Exercises in the form of paradoxes against the Aristotelians,* 1624).⁸

Epicureanism had a dangerous reputation in the early seventeenth century, and one might well wonder if Gassendi's project of making Epicureanism better known was prudent. Indeed, Gassendi's correspondent Tommaso Campanella (1568-1639), who had spent 27 years in prison for heresy and rebellion, seems to have written to Gassendi expressing his concerns about the advisability of the Epicurus project. Gassendi replied that he was not planning to transgress against religion in any way—he would, for instance, insist on providence, contra Epicurus.⁹ Throughout the Epicurus project, Gassendi is very careful to point out the respects in which Epicureanism was incompatible with Christian doctrine and should be rejected for that reason, as well as those respects in which it should be rejected on other grounds, such as incompatibility with recent advances in natural philosophy. However, Gassendi also argues that Epicureanism is ultimately *easier* to reconcile with the doctrines of the Catholic Church than Aristotelianism. Of course, he had to carefully pick and choose which aspects of Epicureanism to appropriate and which to reject—but in that he was doing precisely what Thomas Aquinas (1225-1274) had done for Aristotelianism, Marsilio Ficino (1433-1499) for Platonism, and Justus Lipsius (1547-1606) for Stoicism.¹⁰

Which aspects of Epicureanism did Gassendi appropriate, and which did he reject? We can get some sense of this by looking at our three main themes: atomism, materialism, and atheism.

First, atomism. Lucretius uses the principle *nullam rem e nilo gigni divinitus umquam* (no thing was ever born from nothing by divine power) to argue that there must be indestructible atoms: otherwise all things would have long ago disintegrated into nothing.¹¹ Gassendi relies heavily on the related principle *nihil nihilo fit* ("nothing comes from nothing"). But this principle, on Gassendi's view, is "an axiom of physics and should be understood as concerned with the power of nature itself, not with the power of its author."¹² Since God is the author of nature he is not bound by its laws.¹³ Hence considerations about how change occurs in the natural world support atomism but have no bearing on divine creation. This move quickly neutralizes one line of objection to Epicurean atomism without threatening Epicurean physics.

A second major theme is materialism. Epicurean materialism was associated with the denial of incorporeal principles. This included a denial of Aristotelian forms and a denial of incorporeal substances such as God and the incorporeal human soul (which early modern Aristotelians viewed

⁸ Levitin 2016: 333.

⁹ See Gassendi's reply to Campanella of November 2, 1632 (Gassendi 1964: 6.54b).

¹⁰ It may also be relevant that Gassendi understood how to stay out of trouble when addressing potentially theologically controversial material. Gassendi was a successful member of the church hierarchy and had powerful patrons. His treatment of Copernicanism, which clearly implies that Copernicanism is the best theory while explicitly stating that he bows to the authority of the Catholic Church also shows that he well understood how to deal with potentially controversial material. See LoLordo 2015.

¹¹ Lucretius 2001: 1.150; 225 ff.

¹² Gassendi 1649: 1.92.

¹³ Cf. Gassendi 1964: 1.163a.

as both a substance and the substantial form of the human body). Gassendi accepts what he thinks faith requires, namely that an incorporeal God and an incorporeal human soul exist. At the same time, he agrees with Epicurus in rejecting the existence of forms—with one important exception: "the rational soul, or mind … is rightly judged to be a substance and a substantial form."¹⁴ This exception is not well integrated in Gassendi's system. Most of human cognition, on his view, is a more sophisticated version of animal cognition and hence can be explained in purely material terms. The incorporeal intellect forms notions only of things that cannot be represented by images—namely, God and other incorporeal substances.¹⁵

Early modern philosophers who defended the incorporeality of the human soul usually had at least two main motivations. First, they thought that the best way to guarantee our knowledge of personal immortality was to show that the human soul is incorporeal. Various people pointed out that the immortality of the soul did not follow necessarily from its incorporeality: God could destroy an incorporeal soul if he wanted to.¹⁶ Others pointed out that God could make us immortal *without* giving us incorporeal souls.¹⁷ Nevertheless, most writers thought that incorporeality and immortality were a natural combination, and Gassendi concurred.

A second motivation for defending the incorporeality of the human soul was that so doing seemed necessary to defend human freedom. (At least to those who held the majority view that liberty and necessity are incompatible.) The relationship between early modern Epicureanism and determinism is complex.¹⁸ Gassendi recognized that Epicureanism was not deterministic and saw the swerve as Epicurus's attempt to break out of Democritean determinism, thus allowing for genuine human freedom. For this, he praised Epicurus.¹⁹ However, he thought the attempt was unsuccessful, even hopeless—and not only because it presupposed that the mind is an atomic composite. In addition, he argued that the swerve would do nothing to guarantee genuinely free choice. It would simply introduce chance.²⁰ The right way to guarantee freedom is by making the mind incorporeal.

A third major theme the early moderns associated with Epicureanism is what one might loosely call atheism. This encompassed the denial of the existence of God, but also more narrowly the denial of divine providence. Gassendi recognized that many of his contemporaries would refuse to take Epicureanism seriously because they associated it with the denial of providence. He had two strategies for dealing with this, which were supposed to work in tandem. He forthrightly states that Epicurus denied divine providence, and notes that this is Epicurus' "most serious failing."²¹ There is one God and he is concerned for the well-being of his creation in general, and of human beings in particular. At the same time, he argues that Epicurus is no worse off in that respect than any of the

¹⁴ Gassendi 1964: 1.466b.

¹⁵ Gassendi 1964: 2.440b-451a. There is some dispute in the secondary literature about how seriously to take Gassendi's discussion of the incorporeal soul. Bloch 1971 and Wilson 2008, for instance, are inclined to downplay it, Osler 2009 to emphasize its sincerity and importance. We think that Gassendi's claims are entirely sincere, although also rather unsatisfying.

¹⁶ For example, Descartes in his Synopsis of the *Meditations* (Descartes 1996: 7.13).

¹⁷ For example, Locke in the Stillingfleet correspondence (Locke 1823: 4.166).

¹⁸ [CROSSREF Warren]

¹⁹ Gassendi 1964: 2.837b-838a.

²⁰ This point comes up again in Locke, without reference to Epicurus (Locke 1975: 2.21.51).

²¹ Gassendi 1964: 2.358b.

other ancients; indeed, he is *better* off.²² Various writers had tried to accommodate Aristotelianism and Stoicism with Christian belief in divine providence, even to the extent of reading Stoic theology as in effect an anticipation of that belief.²³ Gassendi argued that this is a mistake. Greek theology is more like nature-worship than it is like Christian belief, and we are better off simply rejecting it. Epicurus alone saw the need to reject pagan religion altogether and hence is the closest to true religion.

Gassendi was widely read and extremely popular in his own day. For succeeding generations, his influence tended to be mediated by shorter, vernacular presentations of his views. In England, the most popular of these was *Physiologia Epicuro-Gassendo-Charltoniana, or, A fabrick of science natural, upon the hypothesis of atoms founded by Epicurus, repaired [by] Petrus Gassendus; augmented [by] Walter Charleton (1654), by Walter Charleton (1619-1707). In France, the most popular vernacular presentation was the seven volume <i>Abridgement of the Philosophy of Gassendi* (1684), by François Bernier (1620-99). Both of these works are partial translations, with some editorializing.

III—Cudworth

Ralph Cudworth (1617-1688) is regularly identified as a 'Cambridge Platonist', and his reaction to Epicureanism was as negative as that label suggests. Cudworth's main work is the 1678 *True Intellectual System of the Universe*, according to its subtitle a book in which "all the reason and philosophy of atheism is confuted; and its impossibility demonstrated". Cudworth was engaged with contemporary philosophy, and was a forceful critic of Hobbes and Descartes. But his discussion of philosophical issues involves persistent reference to the history of philosophy—so much so that Locke suggested that Cudworth's book could act as a textbook of ancient Greek philosophy.²⁴

The *True Intellectual System* may not be much read now, but it was widely read and engaged with at the time. John Locke (1632-1704) owned a copy and drew on it, in particular in his discussion of the existence of God in *Essay* 4.10.²⁵ Gottfried Wilhelm Leibniz (1646-1716) engaged with *True Intellectual System* more than once, ultimately publishing an essay distinguishing his own view from Cudworth's.²⁶ Isaac Newton (1643-1727) too was a reader of Cudworth.²⁷ And these famous names provide just a small glimpse of the role of Cudworth's work in seventeenth-century discussion.

²⁷ McGuire and Rattansi 1966; Sailor 1988.

²² Gassendi 1964: 5.195b.

²³ [CROSSREF Powers]

²⁴ Locke 1823: 9.185-186. A century and more after Locke, the Advertisement to the 1820 edition of the *True Intellectual System* described it as "the most valuable treasure of the ancient theology and philosophy extant in any language".

²⁵ Harrison and Laslett 1965: #896, p.119. On Locke and Cudworth, see Ayers 1991: 2.169-83.

²⁶ Leibniz's first notes from 1689 are at Leibniz 1923-: 6.4.1944-55. Leibniz's correspondence with Cudworth's daughter Damaris Masham (1658-1708), who send him a copy of the *True Intellectual System*, is at Leibniz 1875-90: 3.332-75 and largely translated at Leibniz 1997: 202-25. Leibniz's essay on plastic natures is at Leibniz 1875-90: 6.539-46 and translated at Leibniz 1976: 586-91.

Cudworth's historical engagement in the *True Intellectual System* involves explicit and persistent opposition to Epicurus. This begins with the frontispiece, which depicts confusion to atheists, one of whom is Epicurus, and victory to theists.²⁸ The criticism continues to the end of the book:

Wherefore as for Democritus and Epicurus, whose Encomiums the Atheists here so loudly sing forth; we say, That however they have made so great a noise in the World, and have been so much cried up of late, yet were they really no better, than a Couple of Infatuated Sophists, or Witty Fools; and Debauchers of Mankind.²⁹

Here we focus on Cudworth's characterization of Epicurus's views rather than his criticism of them. That characterization involves all three themes mentioned earlier—atomism, materialism, and atheism.

Cudworth says that Epicurus made "Sensless Atoms to be the first Principles, not only of all Bodies (for that was a thing admitted before by Empedocles and other Atomists that were Theists) but also of All things whatsoever in the whole Universe."³⁰ Atomism is the one central Epicurean view with which Cudworth agrees, but he does not praise Epicureans for believing it. Cudworth argues instead that Epicurus went too far in using atomism to explain everything in the world. He also argues that atomism was not invented by Epicurus or Democritus, but is far older.³¹ This argument has, perhaps, a dual function: it denies Epicureanism—something that was important to Cudworth since he himself was an atomist. However, judging by later discussions, Cudworth does not seem to have been very successful in weakening that connection.

The innovation of Democritus and Epicurus, in Cudworth's eyes, is not in being atomists, but in being atomists about all of nature, and beyond that in being atheistic atomists. Cudworth, like Gassendi, uses the principle that *"Nothing can come from Nothing, nor go to Nothing."*³² Cudworth uses this principle in arguing that atomic atheism is inconsistent. The principle is an essential part of any argument for atomism because it shows that apparent cases of generation and corruption are actually mere rearrangement of atoms. But that same principle also implies that there are incorporeal souls.³³ For if there were not, then the power of thought would come from something unthinking, that is, from something that is nothing with respect to thought. Finally, Cudworth uses the principle to argue for the existence of God: given that principle, "it is demonstratively certain, that every thing

²⁸ Hutton 2001: 61.

²⁹ Cudworth 1678: 890.

³⁰ Cudworth 1678: 61. Cf. Cudworth 1678: Preface to the Reader, and 837, as well as Cudworth 1996: 4.6.15.

³¹ Cudworth thinks the inventor of atomism was most likely the Sidonian Mochus or Moschus. In the *True Intellectual System* he reports the suggestion that Moschus be identified with Moses (Cudworth 1678: 15). In the *Treatise Concerning Eternal and Immutable Morality* he endorses that suggestion (Cudworth 1996: 39).

³² Cudworth 1678: 29.

³³ "[T]he same Principle of Reason which made the Ancient Physiologers to become Atomists, must needs induce them also to be Incorporealists" (Cudworth 1678: 40).

was not made, but that there is something necessarily self-existent, and which could not be."³⁴ Thus Epicurean atomism, on Cudworth's view, is internally inconsistent.

Cudworth insists that Epicureanism is atheistic.³⁵ Early moderns typically describe many sorts of heterodoxy as atheism: to believe in a false God is not to believe in God at all. But Cudworth also seems to think that Epicurus's claim to believe in gods is insincere:

this Theology of *Epicurus* was but Romantical, it being directly Contrary to his avowed and professed Principles, to admitt of any other Being then what was Concreted of Atoms, and consequently Corruptible; and that he did this upon a Politick Account, thereby to decline the Common *Odium*, and those Dangers and Inconveniences which otherwise he might have incurred by a downright denial of a God.³⁶

Epicurus, that is, held views that implied atheism, and knew it, but said he believed in some gods in order to avoid criticism. Whatever Epicurus may have said, the fundamental Epicurean picture of the world is an atheist one.

Cudworth's discussion of atheism is clearly focused—perhaps surprisingly so for the time—on the denial of the existence of God. But that focus still allowed Cudworth to comment on related issues. For one thing, Cudworth was not merely concerned to show that some eternal being exists, but also that this being providently governs the world. Beyond that, Cudworth was aware of Hobbes's attempts to give a deflationary explanation of religious belief that invoked fear as an important cause (Cudworth 1678: 64, 67-9). We will discuss that attempt further in section VI below. For now, we note that Cudworth took such explanations not merely to be explanations of religious belief, but also to contribute to arguments against the existence of God.

Atomism connects closely to another main theme of Epicureanism: materialism about the mind. If the motion of atoms is to explain everything in the natural world, it must explain human minds and their operations. Thus, a thoroughgoing Epicurean atomism will have to be a form of materialism. Of course, one might be an atomist and not a materialist, because one thinks that the atoms are not the only things in the natural world. Indeed, this was Cudworth's view: that there are atoms, but also incorporeal minds and incorporeal 'plastic natures' that guide the workings of corporeal beings.³⁷

We said above that the incorporeality of the human soul is important to early moderns because of its role in defending personal immortality and libertarian freedom. Cudworth is interesting in this connection inasmuch as he associated Epicureanism with determinism and the denial of human freedom. The relevant notion of necessity is closely related to the thought that all change in the world can be explained by the unguided motions of atoms:

³⁴ Cudworth 1678: 738.

³⁵ In describing Epicurus as an atheist, Cudworth is probably following Cicero. See, e.g. Cicero ND 1.85, 1.123f., 2.76; elsewhere Plutarch reports a similar view; and this became embedded in Christian accounts of pagan philosophy, e.g. Lactantius *De Ira* 4.7. Thanks to Nate Powers for the references. ³⁶ Cudworth 1678: 61.

 $^{^{37}}$ Cudworth 16/8: 61.

³⁷ Cudworth 1678: 146-74.

The Democritick Fate, is nothing but The Material Necessity of all things without a God: it supposing Sensless Matter, Necessarily Moved, to be the onely Original and Principle of all things: Which therefore is called by Epicurus, The Physiological; by us, the Atheistick Fate.³⁸

That might seem not to be Epicurus's view. Even Cudworth here calls it "Democritick," not Epicurean. And did Epicurus himself not believe something different, that there is a special motion of atoms—the swerve—that accounts somehow for human freedom? As in the case of atheism, Cudworth acknowledges what is said in the text, but is unimpressed:

Epicurus, (... having, in all probability, therefore a Mind to Innovate Something, that he might not seem to have borrowed all from *Democritus*,) did by violence introduce *Liberty* of *Will*, into his *Hypothesis;* for the Salving whereof, he ridiculously devized, That his *Third Motion of Atoms*.³⁹

Cudworth says it is "intolerably absurd" of Epicurus to suppose *Contingency*, and a Kind of *Free Will*, in the *Motions* of *Sensless Atoms*."⁴⁰ He does not go so far here as in the discussion of atheism, for he does not quite say that Epicurus did not mean what he said. But Cudworth gives the view no credit as a way of introducing freedom within a deterministic, atomistic, atheistic framework.

Cudworth and Gassendi, then, identify similar central themes of Epicureanism, including atomism, materialism about the human mind, and a deflationary approach to religion, if not outright atheism. These views do not entail each other, yet they fit together well as a group. If you think that the content of the natural world is exhausted by atoms moving in the void, then you will plausibly also adopt the other views. If atoms moving in the void explain everything, then they explain human thought, and we need not suppose there is an incorporeal mind or soul. (This may also lead one to deny personal immortality and genuine human freedom.) And there are certainly questions about how religious belief fits into the picture. Atomism does not by itself imply atheism—perhaps there is a God who governs the world of atoms for the good of humankind—but is consistent with it—for perhaps all there is and ever has been is the world of atoms and void.

Thus, the various views fit together. But they can be, and were, held separately. For example, Hobbes seems by many standards to have been an Epicurean, but he was not an atomist. Indeed, he argued against Lucretius's case for atomism.⁴¹ We will begin our examination of themes in the next section by looking at atomism but will also look at the other related views (materialism and atheism) on their own, even when held by non-atomist philosophers.

Cudworth agreed with Gassendi's broad picture of what Epicureanism was, and borrowed quite a lot of Gassendi's scholarship. Obviously, he disagreed with Gassendi's estimate of Epicurus's philosophy: Cudworth reckoned that Gassendi thought too highly of Epicurus. Indeed, Cudworth thought that this had led Gassendi astray in aspects of his interpretation. He goes so far as to accuse Gassendi of "Fraud and Juggling" in trying "to extol and applaud Epicurus, as one who approached nearer to Christianity than all the other Philosophers." Here he has in mind Gassendi's claim that by

³⁸ Cudworth 1678: Preface to the Reader.

³⁹ Cudworth 1678: Preface to the Reader. Cudworth may be drawing on Cicero again here: see DF 1.19.

⁴⁰ Cudworth 1678: 763. See also Cudworth 1996: 191.

⁴¹ *De Corpore* 26.3 (Hobbes 1839-45: 1.415-9).

denying the providentialism of the pagan gods, Epicurus came closer to the truth than those ancient philosophers who thought Zeus governed the world.⁴²

IV—Atomism

Early moderns often conceived of Epicurean atomism as the new consensus in physics, and of Gassendi as playing a pivotal role in its rise.⁴³ Consider Robert Boyle (1627-1691):

The atomical philosophy invented or brought into request by Democritus, Leucippus, Epicurus, & their contemporaries ... is so luckily revived & so skillfully celebrated in diverse parts of Europe by the learned pens of Gassendus, Magnenus, Descartes, & his disciples our deservedly famous countryman Sir Kenelme Digby & many other writers especially those that handle magnetical and electrical operations that it is now grown too considerable to be any longer laughed at, & considerable enough to deserve a serious inquiry.⁴⁴

Or Émilie Du Châtelet (1706-1749):

Most philosophers today ... conceive of matter simply as a mass, uniform and similar, with no internal difference; but, the small particles have such diversified forms and sizes that the infinite variety existing in this universe can result from them. Thus, they suppose the only difference between the constituent particles of gold and paper, for example, to be that which comes from the shape and arrangement of these particles ... This opinion ... is nearly that of Epicurus on atoms, as revived by Gassendi in our own day; these solid and indivisible particles of matter, distinguished from one another by their shape and size, only differ in name from Epicurus's atoms.⁴⁵

As these passages show, early moderns understood what it was to be an Epicurean in this area quite loosely. Boyle, for instance, counted *Descartes* as an Epicurean atomist. He knew that Descartes denied the existence of the void and that he was committed to the infinite divisibility of matter. These are straightforward consequences of Descartes' view of the relationship between matter and geometrical extension. But Boyle thought it sufficient for calling Descartes an atomist that he attempted to explain the workings of nature by the interaction of imperceptibly small particles whose properties were limited to size, shape, and motion. To deny that there are forms, and to try to explain everything in natural philosophy through the interaction of tiny particles with only the mechanical properties of size, shape, and motion is, for early moderns, to be an Epicurean.

⁴² Cudworth 1678: 462. Note the further explicit criticisms of Gassendi at Cudworth 1678: 697, 769. ⁴³ There were a number of other, non-Epicurean forms of atomism, for instance those that ascribed forms to atoms. Examples of non-mechanical atomists include Sebastien Basso, Etienne de Clave, and Daniel Sennert. For discussions of the varieties of early modern atomism, see Chalmers 2009, Clericuzio 2000, and Newman 2006. See also Johnson and Wilson 2008, which focuses on Lucretian atomism but carefully distinguishes it from other early modern forms.

⁴⁴ Boyle 1999-2000: 13.227.

⁴⁵ Du Châtelet 2009: 164.

Epicurean atomism is for them thus mechanical corpuscularianism. (We, however, reserve 'atomism' for views according to which the tiny particles are indivisible.)⁴⁶

The view that early moderns thought of as Epicurean atomism was not all that close to the view of the historical Epicurus. One big difference concerns atomic motion. This was an important issue for early modern natural philosophers, and mechanical atomists made many different attempts to develop a physically viable and theologically acceptable account of atomic motion.⁴⁷

The main differences between early modern views of atomic motion and Epicurus's own involve atomic motion.⁴⁸ Gassendi held, following Epicurus, that atoms move because they have an innate vis motrix (motive power) or gravitas.⁴⁹ He made a not particularly successful effort to reconcile this with the Galilean science of motion, according to which no force is required for a body in motion to stay in motion.⁵⁰ But this aspect of Gassendi's system did not get much uptake. Bernier mocked it, and most later atomists either ignored it or simply did not know about it.⁵¹ The general assumption was that the Galilean science of motion applied equally to atoms and to macroscopic bodies. One way in which Gassendi's atomism differs from ancient Epicurean atomism was widely accepted: that the motion of atoms is the result of an exercise of the divine will. Gassendi seems to think that vis motrix or gravitas is essential to atoms, in the sense that God could not have created the very same atoms with different motive power. However, he could have created atoms with the same size and shape but different motive power (or with no motive power), or he might have created no atoms at all. Thus, to explain the order apparent in the universe we cannot simply advert to its atomic components, but must also invoke God's purposes in creating the particular atoms he chose to create. This is an instance of Gassendi's general tactic for making Epicurean ideas acceptable, and it shows that philosophers can use views inspired by Epicureanism to *support* religion.

The claim that atomic motion derives from God was fairly common; indeed, every Epicurean atomist who wasn't an avowed atheist adopted it. But different philosophers spelled it out in very different ways. To say that God is the ultimate cause of atomic motion could mean that God gave atoms an innate power to move—or that God gave them an initial push and then stayed out of the way, as later deists thought. It could also mean that God keeps the atoms in motion at every

⁴⁶ We follow Boyle in using the term 'corpuscularianism' to describe any view that explains the workings of nature in terms of the tiny particles that composed things, whether or not those particles are held to be genuinely indivisible (as in Gassendi and other atomists) or merely in practice stable (as in Descartes). Early modern authors often use terms like *principia* that can be applied equally either to genuine atoms or to tiny corpuscles whose indivisibility the author denies or remains neutral about.

⁴⁷ None of these attempts contains anything like the swerve. Gassendi and Cudworth discussed and rejected the doctrine of the swerve; most later writers ignored it, or were simply not aware of it.

⁴⁸ Another big issue is the nature of space. Is space independent of God? If so, doesn't that amount to the postulation of a second God? If not, what exactly is the relationship between space and God? Is space, for instance, a divine creation, a divine emanation, or—to use Newton's phrase something like God's sensorium? Is space something outside the traditional ontological categories of substance and accident?

⁴⁹ Gassendi 1964: 1.266b and 1.273b.

⁵⁰ See LoLordo 2015.

⁵¹ Bernier 1992: 2.434. However, Charleton, Gassendi's main English popularizer, endorsed the claim that atoms are always in motion (Charleton 1654: 269).

moment, thus being a form of occasionalism. So, there are ways of understanding how atomic motion depends on God according to which matter is genuinely active, and ways according to which it is inert. The issue of whether matter is inert or active recurs again and again in seventeenth-century natural philosophy. A commitment to the inertness of matter has the great advantage, from the point of view of many early modern philosophers, of making a transcendent, incorporeal God necessary in order for motion to be possible.⁵² The inertness of matter also served, for some, as a reason why the mind must be incorporeal—the idea being that matter is passive, but minds are active, and one cannot make an active thing from passive matter.⁵³

Robert Boyle is a good case for seeing how complicated the issue of atomism and the activity of matter is. He says that "matter alone, unless it be moved, is altogether unactive."⁵⁴ More generally, when he speaks just in terms of matter in motion, he seems to think of matter as inert. But when he speaks of the other properties of matter, as in his chemistry, he appears to be committed to various forms of active matter like seminal principles and ferments, and to offer no attempt to reduce such activity to atomic motion. Indeed, he does not even suggest that such a reduction is possible.⁵⁵ In this respect he is not so different from Gassendi himself, who makes liberal use of various active corpuscles with no attempt to reduce their powers to atomic *vis motrix*.

One can see something of the same pattern in Newton. On the one hand, Newton does not think of motion as requiring any innate motive power in atoms. On the other hand, he suggests that there may well be certain forms of active power in the material world:

[I]t seems probable to me, that God in the Beginning form'd Matter in solid, massy, hard, impenetrable, moveable Particles, of such Sizes and Figures, and with such other Properties, and in such Proportion to Space, as most conduced to the End for which he form'd them; and that these primitive Particles being Solids, are incomparably harder than any porous Bodies compounded of them; even so very hard, as never to wear or break in pieces; no ordinary Power being able to divide what God himself made one in the first Creation ... And therefore, that Nature may be lasting, the Changes of corporeal Things are to be placed only in the various Separations and new Associations and Motions of these permanent Particles ... It seems to me farther, that these Particles have not only a *Vis inertiae* ... but also that they are moved by certain active Principles, such as is that of Gravity.⁵⁶

Those philosophers we might see as early modern Epicurean atomists thus seem to have widely adopted something like the general Epicurean view of matter as active, while rejecting other details of Epicurean atomism.

⁵² Malebranche 1997: 448.

⁵³ See Duncan 2016.

⁵⁴ Boyle 1744: 3.451 ("Excellency and Grounds" §2: https://quod.lib.umich.edu/e/eebo/A28966.0001.001/1:12?rgn=div1;view=fulltext).

⁵⁵ Clericuzio 2001: 106.

⁵⁶ Opticks, Query 31 (Newton 1979: 400-401).

V-Materialism

As we noted earlier, materialism about the human mind was one of the views associated with Epicureanism in the early modern period. In this section we look at two notable examples of such materialism, one from seventeenth-century England and one from eighteenth-century France: that of Thomas Hobbes (1588-1679) and that of Julien Offray de la Mettrie (1709-51).

In a short early essay, Leibniz describes "two sects of naturalists fashionable today which have their source in antiquity": "one revives the opinions of Epicurus and the other is, in fact, composed of Stoics. The former believes that any substance—including the soul and God himself—is corporeal, that is to say, composed of extended matter or mass."⁵⁷ The one modern named as an example of this group was Hobbes. That is, Leibniz thought Hobbes was an Epicurean materialist.

One might argue about the scope, details, and development of Hobbes's materialism, but Leibniz's central suggestion, that Hobbes was a materialist, is correct. According to Hobbes—certainly by the time of *Leviathan* (1651), if not before—there is no incorporeal part to the human being.⁵⁸ In particular, there is no incorporeal intellect that thinks without using images. Instead we just have a corporeal imagination. Other cognitive powers, such as the ability to think generally, which might seem not to be grounded in the imagination, are added by our use of language.

It is clear, then, that Hobbes was a materialist about the human mind. Insofar as any sort of materialism about the human mind was thought of as an Epicurean position, Hobbes was an Epicurean materialist. But is there more to say than that? Was Hobbes in any more distinctive way an *Epicurean* materialist? Hobbes held other broadly Epicurean views, certainly: consider his denial of providence and his use of fear as an explanation for religious belief, which we will discuss in section VI below. But was his *materialism* in any distinctive way Epicurean? After all, he was not an atomist materialist (though he was a corpuscularian one).⁵⁹

The distinctive connection to Epicurean thought, in Hobbes's case, is his mechanical explanation of the mind. Even if they do not believe in atoms moving in the void, a materialist who explains the human mind in this way—through the structure and motion of its smaller, unthinking material parts—explains the thinking of bodies as an atomist materialist would do. (Contrast a materialist who holds that some or all matter is fundamentally and irreducibly thinking.) Hobbes's materialism and Epicureanism thus have in common a reductive materialist explanation that extends to the phenomenon of thought. A materialist who holds such a view may reasonably be considered an Epicurean in this respect, even if they are not a strict atomist.⁶⁰

La Mettrie lived and wrote a century after Hobbes: here we focus on his L'homme machine from 1748.

⁵⁷ Leibniz 1989: 281.

⁵⁸ Leibniz also refers to materialism about God, a position that Hobbes came to advocate in later works. See for example Hobbes 1839-45: 4.313. Useful recent discussions include Gorham 2013 and Springborg 2012.

⁵⁹ Indeed we find Hobbes in *De Corpore* 26.3 arguing directly against the Epicurean arguments for a vacuum reported by Lucretius (Hobbes 1839-45: 1.415-9; Hobbes 2000: 284-6).

⁶⁰ Compare the discussion of themes associated with atomism at Pasnau 2011: 91.

In *L'homme machine*, as in Hobbes's work, we find materialism about the human mind.⁶¹ La Mettrie's work makes a rather different initial impression than Hobbes's though, having a different focus. La Mettrie identifies "physicians who were philosophers" as the key inquirers, and there is in general a medical angle to his materialism, unlike Hobbes's.⁶² As the book's title suggests, it centers on the notion of the human as an animal, an organic machine: "The human body is a machine which winds itself up".⁶³ There is a related emphasis on continuity between humans and other creatures, exemplified by a scheme for educating an orangutan.⁶⁴ There is also—and this ties neatly back to Hobbes—an emphasis on the role of the imagination, which is taken to be corporeal. The imagination "is the soul, because it plays all its roles."⁶⁵ There is no further, possibly incorporeal, intellectual faculty. There is just the corporeal imagination, doing all the work of the mind.

La Mettrie is then, like Hobbes, an Epicurean insofar as he is committed to materialism about the human mind. But as in Hobbes's case, we can also ask whether there is in La Mettrie's materialism something that is even more distinctively Epicurean. La Mettrie did on occasion seem to identify himself as an Epicurean: one of his works is a *System of Epicurus*, albeit a system of Epicurus that seems more about La Mettrie than Epicurus.⁶⁶ Beyond that, however, we can ask whether there are distinctive connections to Epicurus in the content of his views.

In Hobbes's case, that close connection came from a commitment to mechanical explanation. Such a connection might at first seem to be absent from La Mettrie's work. The emphasis on the biological, and on the role of the physician as enquirer, might seem to show that something else is going on in Lat Mettrie. In particular, La Mettrie seems to be concerned with living matter in a way that Hobbes is not.

There is certainly a difference of emphasis, and perhaps a difference of method. But despite that, there are notably mechanistic aspects to La Mettrie's thought. Consider just the title of the work we have focused on, which tells us that man is a machine. Consider also the claim at the start of the work's penultimate paragraph: "Let us then conclude boldly that man is a machine and that there is in the whole universe only one diversely modified substance".⁶⁷ This is the commitment of a seventeenth-century mechanist—that the universe is made of one sort of material stuff; that the explanation of the non-basic features of natural bodies is fundamentally the same as the explanation of the features of artificial machines, relying on the shapes, sizes, and motions of the small parts of

⁶¹ For a general introduction see Thomson 2008: especially 180-9. On La Mettrie and Epicureanism, see Comte-Sponville 1992, Thomson 2004, and Wolfe 2009.

⁶² La Mettrie 1996: 4-5.

⁶³ La Mettrie 1996: 7. Locke uses the identity of a machine to provide a clue to the identity of living organisms (Locke 1975: 2.27.5).

⁶⁴ La Mettrie 1996: 11-12.

⁶⁵ La Mettrie 1996: 15. There seem not, however, to be many direct connections between Hobbes and La Mettrie (La Mettrie 1996: xxiii).

⁶⁶ That self-identification was perhaps not always present. Thus, at one point in *L'homme machine*, La Mettrie hesitates, indeed declines, to adopt the approach of the Epicureans (as he calls them) who think the eye sees because of the organization it happens to have, not because of design (La Mettrie 1996: 25).

⁶⁷ La Mettrie 1996: 39.

the bodies. No doubt the approaches of Hobbes and La Mettrie differ in many ways.⁶⁸ But even a hundred years after Hobbes, and though he was thinking about anatomy rather than atoms, La Mettrie was still promoting a mechanistic, Epicurean approach to explanation of natural phenomena.

VI-God, Divine Providence, and Religious Belief

Early moderns associated Epicureanism with atheism. Gassendi tried to counter this association, arguing that Epicurus's views were less in tension with Christian belief than those of Plato, Aristotle, and the Stoics were. None of the ancients recognized the one true God, and it is better to realize that the gods of your culture are false than to worship them. Cudworth rejected this, arguing that Epicurus denied the existence of all gods and that he merely talked of gods "upon a Politick Account."⁶⁹

Epicureanism was sometimes used as a synonym for atheism. However, even a famous early modern Epicurean 'atheist' such as Hobbes stated explicitly that God exists. But even if we take those statements at face value, Hobbes and other early moderns seemed religiously questionable because of two Epicurean themes of their work: the denial of providence and the provision of deflationary explanations of religious belief.

Providence

The theology of providence is its own complex issue. But Christian belief in providence requires, at least, belief that God knows and controls the world. It generally also involves belief that God cares about the world, or about human beings in particular. Some modern philosophers were notably Epicurean but held on to belief in divine providence. Thus, many early moderns thought of Gassendi as an Epicurean, even though he affirmed divine providence. Nevertheless, Epicureanism might seem to tend towards a rejection of providence. The obvious way for an Epicurean to deny providence would be, of course, to be an atheist. But one may deny divine providence without being an atheist, and ancient Epicurean positions seem to have done that. Several Epicurean moderns did so too. Hobbes provides an example here. Even if one disagrees with Cudworth's reading of Hobbes as an atheist, Hobbes's stated theological views—both his earlier negative theology and his later view of God as a corporeal spirit—are non-providential.⁷⁰

⁶⁸ Thomson (2001) describes matter in La Mettrie as active. Certainly, it is the matter that is organized and active that he is interested in. But it is less clear that he is committed to all matter, at all scales, being active. Thomson (2001: 33) distinguishes two ways matter could be animated—fundamentally and as result of organization—and if the second view is La Mettrie's, as it might be, then he is allowing for inactive basic matter, even if he is not interested in talking about it. ⁶⁹ Cudworth 1678: 61.

⁷⁰ On the corporeal God view see n.58 above. On the negative theology, Hobbes's view that all we can know of God is that he exists and was the cause of the universe, see Duncan 2005 (though that tries perhaps too hard to find a non-ambiguous reading of the 1651 *Leviathan*, which seems in fact to be transitional and to point towards both views, though the negative theology tends to dominate).

Beyond that, we can see that various moderns employ an argument against divine providence which they take to be Epicurean, following Lactantius. In note E to the article "Paulicians" in his *Dictionary*, Pierre Bayle (1647-1706) quotes Lactantius's reply to that argument, which includes a version of the argument itself.⁷¹ Bayle writes of Lactantius's presentation of his opponent's argument that "Epicurus himself could not have set it forth more precisely and forcefully", but finds Lactantius's own response "pitiful."⁷² This fits a more general theme in Bayle, that there are serious and influential Epicurean objections to providence that deal with the origin of evil, but that the "Church Fathers … hardly gave a good answer" to them.⁷³

Later, Paul-Henri Thiry, Baron d'Holbach (1723-1789) would also cite Lactantius in presenting the Epicurean argument. Holbach puts the point more forcefully than Bayle, saying: "Reflecting minds have been waiting for a reasonable solution of these difficulties for more than two thousand years; and our divines tell us, that they will be removed only in a future life."⁷⁴ This fits well with Holbach's general thought about providence, that there just is not much evidence of it: "Providence sleeps over the greater part of the inhabitants of this world."⁷⁵

The very same argument, again tied explicitly to Epicurus, was also noted by David Hume (1711-1776). In part 10 of his *Dialogues concerning Natural Religion*, Hume too—or at least his character Philo—notes the lack of an explanation, that "Epicurus's old questions are yet unanswered".⁷⁶ Another famous discussion of providence with links to Epicureanism figures in section XI of Hume's *Enquiry Concerning Human Understanding*, "Of a Particular Providence and of a Future State".⁷⁷ Here, unlike in other sections of the *Enquiry*, the discussion unfolds in multiple frames. Hume begins by recounting a conversation with an unnamed friend, who goes on to conceive and present a speech in which he imagines himself to be Epicurus addressing an Athenian audience. Thus, Hume distances himself from the views in the speech, which are presented as Epicurean. The speech targets the uses and abuses of design arguments for the existence of God—in particular, the use of such arguments to attempt to establish that there is justice in the world. Hume was to some extent fighting eighteenth-century battles in ancient guise.⁷⁸ But as well as invoking Epicurus, he shared an Epicurean opposition to belief in divine providence. For Hume as for Holbach, this opposition involves, in part, questioning whether there is evidence for providence.⁷⁹

⁷¹ Note E to the article "Paulicians" in his *Dictionary* (Bayle 1991: 169).

⁷² Bayle 1991: 169-170.

⁷³ Bayle 1991: 167. See also Bayle's discussion of Epicurus's rejection of providence in the article "Epicurus" (Bayle 1734: 2: 774-92). This is not the place to engage in extended interpretation of Bayle, but it does seem possible to read Bayle as suggesting that if you use reason, there's a lot to be said for an Epicurean denial of providence.

⁷⁴ Holbach 1876: 41.

⁷⁵ Holbach 1876: 34.

⁷⁶ Hume 2007a: 10.25.

⁷⁷ Hume 1999: 187-98.

⁷⁸ Loptson 2012: 760-1.

⁷⁹ One could also see this as Hume adopting the same attitude we suggested Bayle had (n.73), that if you rely on reasoning, there's a lot to be said for an Epicurean attitude to providence.

Deflationary explanations

Another thread connecting Epicurean (and in particular Lucretian) philosophy to Hobbes and other moderns is the provision of deflationary explanations of religious belief. These are explanations of religious belief that do not rely on the actual existence or actions of supernatural beings. Not only do Lucretius and Hobbes both offer such explanations, but there are close connections between the details of their explanations. The central idea is that people who are unable to explain the happenings of the world, and feel a related fear of them, attribute them to the doings of supernatural beings.

In a comment early in *De Rerum Natura*, Lucretius presents fear and the failure of ordinary causal explanation as the real bases of religious belief: "The fact is that all mortals are in the grip of fear, because they observe many things happening on earth and in the sky and, being at a complete loss for an explanation of their cause, suppose that a supernatural power is responsible for them".⁸⁰ In this respect Hobbes is a modern Lucretian:

This perpetual fear, always accompanying mankind in the ignorance of causes, as it were in the dark, must needs have for object something. And therefore when there is nothing to be seen, there is nothing to accuse, either of their good, or evil fortune, but some *power*, or agent *invisible:* in which sense perhaps it was, that some of the old poets said, that the gods were at first created by human fear: which spoken of the gods, (that is to say, of the many gods of the Gentiles) is very true.⁸¹

The reference to "some of the old poets" seems likely to be a reference to Lucretius, among others.⁸² And the core of the explanation here is the same as that we have just seen offered by Lucretius. Hobbes similarly adverts to fear and the failure of causal explanation, and he relates them in the same way: people fear what they cannot explain and thus come to talk about gods.⁸³

Now, Hobbes did continue on to talk about monotheistic views, and gave a different explanation in that case, so his ultimate explanation of the causes of religious belief is not the same as Lucretius's—but then again, the two authors needed explain different forms of religious belief. Moreover

 ⁸⁰ Lucretius 2001: 1.151-155. The causal-explanatory theme returns at Lucretius 2001: 5.1182-1188.
⁸¹ Leviathan 12.6. See also Leviathan 11.26, Hobbes's summary of his account at Leviathan 12.11, and

the role of fear in Hobbes's explanation of religious visions at Leviathan 2.7.

⁸² Curley agrees in a note to this passage in his edition (Hobbes 1996). Curley suggests also (following Tricaud) Statius, *Thebais* III.661. Malcolm in his edition (Hobbes 2012) refers to Statius, and to also to Petronius, Fragment 28, 1. I, though not to Lucretius. Meanwhile note that Hobbes used *De Rerum Natura* 2.54-7 as the epigraph of his *Historical Narration concerning Heresy* (Hobbes 1839-45: 4.385).

⁸³ Cudworth criticizes this sort of explanation in Hobbes, when looking at arguments for atheism. Thus, he talks of the view that "the Attributes of God … had their only Original from a certain Rustick Astonishment of Mind, proceeding from excess of Fear, raising up the Phantasm of a Deity, as a Bug-bear for an Object to it self, and affrighting men into all manner of Confounded Non-sense (Cudworth 1678: 64) and of the view that God "is but the Creature of Mens Fear and Phancie, the Chief of all Phantastick Ghosts and Spectres, as it were an Oberon or Prince of Fayries and Phancies" (Cudworth 1678: 68). Later he connects Hobbes's account of the natural origin of religion to Lucretius's (Cudworth 1678: 656-7).

Cudworth, at least, supposed that Hobbes in fact believed that his fear-based explanation applied to monotheism as well as polytheism.⁸⁴

Such Lucretian explanations were not confined to Hobbes's work. We can see similar thoughts in Spinoza's *Tractatus Theologico-Politicus*, for example.⁸⁵ And as with the arguments about evil and providence discussed above, we see these explanations in the eighteenth-century work of Hume and Holbach.⁸⁶

VII—Conclusion

We have seen a wide range of views described as Epicurean: that all material objects are composed of atoms whose properties are restricted to size, shape, and motion; that the human mind is material and composed of atoms; that everything that exists is composed of atoms; that pleasure is the end of life; that there is no such thing as divine providence; and that one can give deflationary explanations of religious belief. We have also seen a wide range of philosophers described as Epicurean: Bacon, Descartes, Galileo, Gassendi, Hobbes, Holbach, Hume, La Mettrie, and Spinoza.

As this list of 'Epicurean' doctrines and figures shows, the category 'Epicurean' is both vague and elastic. Nevertheless, it is useful for two related, reasons. One is that the category played an important role in seventeenth- and eighteenth-century discussions. Thus, understanding how early moderns used it helps us see the landscape as the early moderns saw it.

Another reason has to do with today's scholarly landscape. For a long time, scholars of early modern philosophy told the story of seventeenth- and eighteenth-century philosophy as a struggle between rationalists and empiricists that ended only when Kant showed how to synthesize the two.⁸⁷ This Kantian narrative and its categories of 'empiricism' and 'rationalism' have fallen out of favor. However, scholars have not given up the desire for an overarching narrative, and other interpretive frameworks have been offered in place of the Kantian one. One recently suggested narrative tells the story of early modern European philosophy—at least, early modern natural philosophy—in terms of the distinction between experimental and speculative philosophy.⁸⁸ But another option is to tell the story of early modern philosophy in terms of the revival of ancient schools—skeptics, Platonists, Epicureans, and Stoics—and indeed of the persistence of some Aristotelianism.⁸⁹ Popkin's study of the deep influence of ancient skepticism in the modern period is well known, but a singular focus on

⁸⁴ Cudworth 1678: 68.

⁸⁵ Spinoza 2016: 66-7.

⁸⁶ For Holbach see Holbach 1876: 8 on the role of fear in the origin of religion. For Hume see the related explanation of the origins of polytheism (Hume 2007b: 3.1), and also his discussion of the move from polytheism to monotheism (Hume 2007b: 6.1-4).

⁸⁷ For histories of this narrative, see Kuklick 1984 and Vanzo 2016.

⁸⁸ See Anstey and Vanzo 2016.

⁸⁹ This sort of narrative was not unknown in the period itself. Thus, as we saw in section V, Leibniz distinguished Epicureans and Stoics among seventeenth-century philosophers. He also, in the *New Essays*, compared the disagreement between himself and Locke to that between Plato and Aristotle Leibniz 1996: 47.

the influence of skepticism is itself distorting.⁹⁰ More recent interventions have emphasized the revival of Epicureanism, Platonism, and Stoicism.⁹¹ Appreciating the profound modern interest in these ancient views can help us to frame the broad sweep of early modern philosophy. As with the interpretive framework that distinguishes between experimental and speculative philosophy, this approach has the advantage of using categories the early moderns themselves used, helping us balance the desire for a narrative with historical accuracy.

⁹⁰ See most notably Popkin 2003, the first edition of which was published in 1960.

⁹¹ See, e.g., Hedley and Hutton 2008 for Platonism and Wilson 2008 for Epicureanism.

Works Cited

Anstey, Peter and Alberto Vanzo (2016) "Early Modern Experimental Philosophy". In ed. Justin Systma and Wesley Buckwalter, *Blackwell Companion to Experimental Philosophy*. Hoboken: Wiley.

Ayers, Michael (1991) Locke. London: Routledge.

Barckley, Richard (1631) The Felicitie of Man, or, his summum bonum. London: Printed by R.Y. and sold by R. Roystone.

Bayle, Pierre (1734) Mr Bayle's Historical and Critical Dictionary. The Second Edition. London.

(1991) *Historical and Critical Dictionary: Selections*. Translated by Richard Popkin. Indianapolis: Hackett.

Bernier, François (1992) Abrégé de la philosophie de Gassendi. Lyon: Anisson, Posuel et Rigaud, 1684. Reprint edition. Sylvia Murr et Geneviève Stefani, eds. Paris: Fayard.

Bloch, Olivier René (1971) La philosophie de Gassendi: Nominalisme, Matérialisme et Métaphysique. La Haye: Martinus Nijhoff.

Boyle, Robert (1999-2000) *The Works of Robert Boyle*. Ed M. Hunter and E.B. Davis. 14 volumes. London: Pickering and Chatto.

_____ (1744) *The Works of the Honorable Robert Boyle.* 5 volumes. London: printed for A. Millar, opposite Catharine-Street, in the Strand.

Brown, Alison (2010) The Return of Lucretius to Renaissance Florence. I Tatti Studies in Italian Renaissance History. Cambridge, Mass.: Harvard University Press.

Chalmers, Alan (2009) The Scientist's Atom and the Philosopher's Stone: How Science Succeeded and Philosophy Failed to Gain Knowledge of Atoms. Dordrecht: Springer.

Charleton, Walter (1654) Physiologia Epicuro-Gassendo-Charltoniana, or, A fabrick of science natural, upon the hypothesis of atoms founded by Epicurus, repaired [by] Petrus Gassendus; augmented [by] Walter Charleton. London: Printed by Tho. Newcomb for Thomas Heath.

Clericuzio, Antonio (2000) Elements, Principles and Corpuscles: A Study of Atomism and Chemistry in the Seventeenth Century, Dordrecht: Kluwer.

Comte-Sponville, André (1992) "La Mettrie et le «Système d'Épicure»", Dix-huitième Siècle 24: 105-15.

Cudworth, Ralph (1678) The True Intellectual System of the Universe. London.

(1820) The True Intellectual System of the Universe. 4 volumes. London.

(1996) A Treatise Concerning Eternal and Immutable Morality. Edited by Sarah Hutton. Cambridge: Cambridge University Press.

Deneys-Tunney, Anne and Pierre-Françoit Moreau (ed.) (2003) L'Épicurisme des Lumières. Dix-huitième Siècle 35.

Descartes, René (1996) Oeuvres de Descartes. 11 volumes. Edited by Charles Adam and Paul Tannery. Paris: J. Vrin.

Du Châtelet, Émilie (2009) Selected Philosophical and Scientific Writings. Ed. Judith P. Zinsser. Chicago: The University of Chicago Press.

Duncan, Stewart (2005) "Knowledge of God in Leviathan", History of Philosophy Quarterly 22 (1): 31-48.

(2016) "Materialism and the Activity of Matter in Seventeenth-Century European Philosophy", *Philosophy Compass* 11 (11): 671-680.

Gassendi, Pierre (1658/1964) *Opera Omnia*. 6 volumes. Lyon: Laurent Anisson and Jean Baptiste Devenet. Reprint edition. Tullio Gregory. Stuttgart-Bad Cannstatt: Friedrich Fromann Verlag.

(1649) Animadversiones in Decimum Librum Diogenis Laertii. Lyon : Guillaume Barbier.

Gorham, Geoffrey (2013) "The Theological Foundations of Hobbesian Physics: A Defense of Corporeal God," *British Journal for the History of Philosophy* 21: 240–61.

Greenblatt, Stephen (2011) *The Swerve: How the World Became Modern*. New York and London: W. W. Norton and Company.

Harrison, John and Peter Laslett (1965) *The Library of John Locke*. Oxford: Published for the Oxford Bibliographical Society by the Oxford University Press.

Hedley, Douglas and Sarah Hutton (ed.) (2008) *Platonism and the Origins of Modernity* (Dordrecht: Springer).

Hobbes, Thomas (1839-45) The English Works of Thomas Hobbes. London: Bohn.

_____ (1994) Leviathan. Edited by E.M. Curley. Indianapolis: Hackett.

(2000) De Corpore. Elementorum Philosopiae Sectio Prima. Edited by Karl Schuhmann. Vrin: Paris, 2000.

(2012) Leviathan. Edited by Noel Malcolm. Oxford: Clarendon.

Hume, David. (1999) An Enquiry concerning Human Understanding, edited by Tom L. Beauchamp (Oxford: Oxford University Press).

_____ (2007a) *Dialogues concerning Natural Religion*, edited by Dorothy Coleman (Cambridge: Cambridge University Press)

(2007b) *A Dissertation on the Passions and The Natural History of Religion*, edited by Tom L. Beauchamp (Oxford: Clarendon).

Hutton, Sarah (2001) "Ralph Cudworth, God, Mind and Nature". In Robert Crocker (ed.), Religion, Reason and Nature in Early Modern Europe (Dordrecht: Springer) 61-76.

Johnson, Monte Ransome and Catherine Wilson (2007) "Lucretius and the history of science". In Stuart Gillespie & Philip R. Hardie (eds.), *The Cambridge Companion to Lucretius* (Cambridge: Cambridge University Press).

Kors, Alan Charles (2016). *Epicureans and Atheists in Early-Modern France*. New York and Cambridge: Cambridge University Press.

Kuklick, Bruce (1984) "Seven Thinkers and How They Grew: Descartes, Spinoza, Leibniz; Locke, Berkeley, Hume; Kant". In Richard Rorty, J.B. Schneewind, and Quentin Skinner (ed.), *Philosophy in History* (Cambridge: Cambridge University Press) 125-39.

La Mettrie, Julie Offray de (1996) Machine Man and Other Writings. Translated and edited by Ann Thomson. Cambridge: Cambridge University Press.

Leddy, Nevin and Avi S. Lifshitz (ed.) (2009) Epicurus in the Enlightenment. Oxford: Oxford University Press.

Leibniz, Gottfried Wilhelm (1875-90) *Philosophische Schriften*. Edited by C.I. Gerhardt. Berlin: Weidmannsche Buchhandlung.

_____ (1923-) Sämtliche Schriften und Briefe. Akademie Verlag.

_____ (1976) *Philosophical Papers and Letters*. Second edition. Translated by Leroy Loemker. Dordrecht: Springer.

_____ (1989) *Philosophical Essays*. Translated by Roger Ariew and Daniel Garber. Indianapolis: Hackett.

_____ (1996) New Essays on Human Understanding. Translated by Peter Remnant and Jonathan Bennett. Cambridge: Cambridge University Press.

(1997) Leibniz's New System' and Associated Contemporary Texts. Translated by R.S. Woolhouse and Richard Francks. Oxford: Oxford University Press.

Levitin, Dmitri (2016) Ancient Wisdom in the Age of the New Science: Histories of Philosophy in England, c. 1640-1700. Cambridge University Press.

Locke, John (1823). The Works of John Locke. London: Printed for Thomas Tegg.

(1975). An Essay Concerning Human Understanding. Edited by P.H. Nidditch. Oxford: Clarendon.

LoLordo, Antonia (2011) "Epicureanism and Early Modern Naturalism". British Journal for the History of Philosophy 19(4): 647-664.

_____ (2015) "Copernicus, Epicurus, Galileo, and Gassendi". Studies in the History and Philosophy

of Science 51.

Loptson, Peter (2012) "Hume and Ancient Philosophy" British Journal for the History of Philosophy 20(4): 741-72.

Lucretius (2001) On the Nature of Things. Translated by Martin Ferguson Smith (Indianapolis: Hackett).

Malebranche, Nicolas (1997). *The Search after Truth*. Ed. Thomas M. Lennon and Paul J. Olscamp. New York: Cambridge University Press.

McGuire, J.E. and P.M. Rattansi (1966) "Newton and the 'Pipes of Pan'" Notes and Records 21(2): 108-43.

Newman, William R. (2006) Atoms and Alchemy, Chicago: University of Chicago Press.

Newton, Isaac (1979) Opticks. Edited by I.B. Cohen. New York: Dover.

Norbrook, David, Stephen Harrison, and Philip Hardie (eds.) (2016) *Lucretius and the Early Modern*. Oxford: Oxford University Press.

Osler, Margaret (2009) Review of Catherine Wilson, *Epicureanism at the Origins of Modernity*. Notre Dame Philosophical Reviews 3/24/2009. <u>https://ndpr.nd.edu/news/epicureanism-at-the-origins-of-modernity/</u>

Pasnau, Robert (2011) Metaphysical Themes 1274-1671. Oxford: Clarendon Press.

Passannante, Gerard (2011). The Lucretian Renaissance: Philology and the Afterlife of Tradition. Chicago, London: University of Chicago Press.

Popkin, Richard (2003). The History of Scepticism from Savonarola to Bayle. Oxford: Oxford University Press.

Rochot, Bernard (1944). Les travaux de Gassendi sur Epicure et sur l'atomisme, 1619-1658. Paris: J. Vrin.

Russell, Paul (2010) The Riddle of Hume's Treatise: Skepticism, Naturalism, and Irreligion. Oxford: Oxford University Press.

Sailor, Danton B. (1988) "Newton's Debt to Cudworth", Journal of the History of Ideas 49(3): 511-8.

Spinoza, Benedict (2016). *The Collected Works of Spinoza*, volume II. Translated by Edwin Curley. Princeton: Princeton University Press.

Springborg, Patricia (2012) "Hobbes's Challenge to Descartes, Bramhall and Boyle: A Corporeal God", *British Journal for the History of Philosophy* 20: 903-34.

Thomson, Ann (2001) "Mechanistic Materialism vs Vitalistic Materialism?", La lettre de la maison française d'Oxford 14: 21-36.

___ (2004) "Le Mettrie et l'épicurisme", in Gianni Paganini and Edoardo Tortarolo, eds. Der

Garten und die Moderne: Epikureische Moral und Politik vom Humanismus bis zur Aufklärung (Stuttgart: Frommann-Holzboog) 361-81.

(2008) Bodies of Thought: Science, Religion, and the Soul in the Early Enlightenment. Oxford: Oxford University Press.

Vanzo, Alberto (2016) "Empiricism and Rationalism in Nineteenth-Century Histories of Philosophy", *Journal of the History of Ideas* 77(2): 253-82.

Wilson, Catherine (2008) *Epicureanism at the Origins of Modernity*. New York and Oxford: Oxford University Press.

Wolfe, Charles (2009) "A Happiness Fit for Organic Bodies: La Mettrie's Medical Epicureanism," in Leddy and Lifshitz (2009) 69-83.